

Financial reporting developments
A comprehensive guide

Derivatives and hedging

Revised September 2023

To our clients and other friends

The derivatives and hedging guidance codified in Accounting Standards Codification (ASC or Codification) 815 is considered by many to be one of the more challenging areas in US GAAP because of its breadth and complexity.

To address concerns that the hedge accounting guidance in ASC 815 was overly restrictive and complex, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, which is now effective for all entities. It made the most significant changes to the hedge accounting model since the guidance was issued in Statement 133 in 1998. The amendments enable entities to more clearly portray the economics of their risk management activities in the financial statements. They also expand the strategies that qualify for hedge accounting and simplify the application of hedge accounting in certain situations.

While the amendments have been well received and are generally viewed as improvements to the hedge accounting model, the guidance in ASC 815 is still complex.

Our Financial reporting developments (FRD) publication includes excerpts from and references to the Codification, interpretive guidance and examples and is intended to help you understand the financial reporting issues associated with derivatives instruments, including the application of hedge accounting permitted by ASC 815 when specific requirements are met. This publication reflects relevant accounting standards issued through July 2023, including ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*, and certain clarifications of EY interpretive guidance. In addition, the guidance in ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, has been removed from Appendix E and included within the body of this publication.

Refer to Appendix E for further details on significant updates to this publication.

As always, EY professionals are prepared to assist you in your understanding and are ready to discuss your particular concerns and questions.

The logo for Ernst & Young LLP, featuring the company name in a stylized, cursive script font.

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Notice to readers:

This publication includes excerpts from and references to the Financial Accounting Standards Board (FASB or Board) Accounting Standards Codification (Codification or ASC). The Codification uses a hierarchy that includes Topics, Subtopics, Sections and Paragraphs. Each Topic includes an Overall Subtopic that generally includes pervasive guidance for the Topic and additional Subtopics, as needed, with incremental or unique guidance. Each Subtopic includes Sections that in turn include numbered Paragraphs. Thus, a Codification reference includes the Topic (XXX), Subtopic (YY), Section (ZZ) and Paragraph (PP).

Throughout this publication references to guidance in the Codification are shown using these reference numbers. References are also made to certain pre-Codification standards (and specific sections or paragraphs of pre-Codification standards) in situations in which the content being discussed is excluded from the Codification.

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1 Overview

1.1 Introduction

This publication addresses the financial accounting and reporting requirements for derivatives and hedge accounting activities in accordance with Accounting Standards Codification (ASC) 815, *Derivatives and Hedging*.

1.2 Overview of ASC 815

ASC 815 defines a derivative instrument broadly as a financial instrument or other contract that has all of the following characteristics:

- ▶ It contains an *underlying* variable, such as an interest rate index, security price, commodity price, foreign exchange rate or other variable (including the occurrence or nonoccurrence of a specified event, such as a scheduled contractual payment). It also contains a *notional amount*, such as a fixed number of currency units, shares, bushels, pounds or other units specified in the contract, or a *payment provision*, or both.
- ▶ It requires *no initial net investment* or an initial net investment that is smaller than would be required for other types of contracts that are expected to have a similar response to changes in market factors. In other words, the parties do not have to invest in or own the notional amount at the inception of the contract.
- ▶ The contract requires or permits *net settlement*, can readily be settled net by a means outside the contract (e.g., futures contracts) or provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

Section 2.4 describes these key characteristics of derivatives in more detail.

How we see it

Many contracts and contract features may meet ASC 815's broad definition of a derivative. As such, management needs to closely evaluate a contract to determine whether it meets the definition of a derivative in its entirety under ASC 815. If it doesn't, management needs to consider whether the contract contains any embedded derivatives that have to be accounted for separately.

The following are the key principles that make up the foundation of the guidance in ASC 815:

- ▶ A derivative instrument represents a right or obligation that meets the definition of an asset (expected future cash inflows due from another party) or a liability (expected future cash outflows owed to another party).
- ▶ Derivatives are reported at fair value on the statement of financial position with changes in fair value reported in earnings, unless they are designated in a hedge accounting relationship.

- ▶ Entities can choose to apply hedge accounting to qualifying transactions if certain criteria are met.¹ If an entity elects to designate a derivative as the hedging instrument in a highly effective hedge relationship, its change in fair value may be accounted for differently than a non-designated derivative, depending on whether the relationship is a fair value hedge, a cash flow hedge or a hedge of a net investment in a foreign operation.

ASC 815 applies to all entities, including those that already report assets and liabilities at fair value (e.g., investment companies), although the effect on these entities may be less significant. Entities that do not report earnings as a separate caption in a statement of financial performance (e.g., defined benefit pension plans, certain not-for-profit entities (NFPs)) are not permitted to apply certain aspects of hedge accounting, as discussed in section 2.1.

ASC 815 also addresses derivatives embedded in other contracts and generally requires them to be bifurcated from the host instrument and accounted for as derivatives under ASC 815 when the economic characteristics and risks of the embedded derivative instrument are not clearly and closely related to those of the host contract. Chapter 3 addresses the complexities of analyzing contracts for embedded derivatives.

The remainder of this chapter summarizes the major provisions of ASC 815.

1.3 Hedgeable risks and types of hedges

As noted above, derivatives are reported at fair value on the statement of financial position, with changes in fair value reported in earnings. As a result, absent hedge accounting, when companies use derivatives for economic hedging purposes, an accounting mismatch often results because the hedged item is either a forecasted transaction not accounted for on the balance sheet (e.g., forecasted purchase of natural gas) or is a recognized asset or liability that is not accounted for at fair value through profit and loss (e.g., inventory accounted for at lower of cost or market or issuer's debt accounted for at amortized cost).

Hedge accounting formally links a derivative (the hedging instrument) with a hedged item and aligns the accounting for the derivative with the accounting for the hedged item thereby mitigating the earnings mismatch that would result when only the derivative is accounted for at fair value through profit and loss.

From a risk management perspective, certain entities approach hedging from an enterprise-wide (or macro) basis. However, US GAAP requires hedge accounting to be applied based on specific designations at the transaction level. Because entities cannot apply macro hedge strategies and obtain the financial reporting benefits of hedge accounting, they need to utilize transaction-based hedges to achieve their macro goals. While hedging of portfolios is permitted, ASC 815 generally requires homogeneity of the hedged items comprising the portfolio.

When applying hedge accounting, entities can designate the hedged item as an entire item or a percentage of an entire item, or as pools of similar items (or specific portions of the pool). Under ASC 815, the risks associated with the designated hedged item that are eligible to be hedged differ somewhat between financial instrument-related exposures and nonfinancial exposures. In addition, certain types of risks are specifically prohibited from being hedged. For instance, the risk that an expected transaction will not occur is not hedgeable.

¹ Because the application of hedge accounting is elective, the criteria to apply hedge accounting includes formal designation and documentation of the qualifying hedging relationship. Refer to chapter 4 for additional discussion on hedge accounting criteria.

The hedgeable risks under ASC 815 for *financial instrument-related exposures* are:

- ▶ Market price risk
- ▶ Interest rate risk
- ▶ Foreign exchange risk
- ▶ Credit risk

For nonfinancial items, only the market price risk of the entire item is a hedgeable risk in a fair value hedge. In a cash flow hedge associated with the forecasted purchase or sale of a nonfinancial asset, certain components of the forecasted transaction (i.e., foreign exchange risk or the variability related to a contractually specified component) may also be considered hedgeable risks if certain requirements are met. Foreign exchange risk associated with the receivables and payables that may result from such forecasted transactions is also hedgeable.

To hedge these risks, ASC 815 provides for three different types of hedges:

- ▶ *Fair value* hedges that hedge the exposure to changes in fair value of recognized assets or liabilities or of an unrecognized firm commitment
- ▶ *Cash flow* hedges that hedge the exposure to variability in expected future cash flows of recognized assets or liabilities or of unrecognized forecasted transactions
- ▶ For multifunctional currency entities, *hedges of net investments in foreign operations* that hedge the translation exposure to changes in foreign exchange rates in accumulated other comprehensive income (AOCI) (equity)

Other foreign currency hedge strategies addressed by ASC 815 are special applications of fair value or cash flow hedge accounting and include:

- ▶ Fair value hedges of unrecognized firm commitments denominated in a foreign currency
- ▶ Fair value hedges of recognized assets or liabilities for which a foreign currency transaction gain or loss is recognized in earnings
- ▶ Fair value hedges of certain foreign-denominated available-for-sale debt securities
- ▶ Cash flow hedges of forecasted foreign currency transactions or forecasted intercompany foreign currency transactions
- ▶ Cash flow hedges of unrecognized firm commitments denominated in a foreign currency
- ▶ Cash flow hedges of the forecasted functional-currency-equivalent cash flows associated with a recognized asset or liability

Fair value and cash flow hedges are the most prominent types of hedges, and often the most complex. Fair value hedges address risks that arise due to prices or rates that are fixed or known (e.g., inventory costs, fixed-rate debt). They also can be used to hedge firm commitments, which are transactions that will take place in the future where all the terms are contractually fixed. Fair value hedges allow entities to alleviate the risks that changing prices, terms or rates could cause while an entity is bound to a fixed price, term or rate.

A common example of a fair value hedge is using a “pay-floating/receive-fixed” interest rate swap to hedge fixed-rate debt that has been issued. The use of an interest rate swap “unlocks” the fixed interest expense associated with the debt and results in interest expense that varies with the market rate, benefiting the entity if market rates decline.

In contrast, cash flow hedges address risks that arise due to prices or rates that are variable, either by contract or because they will be entered into at market prices that are in effect at a future date (e.g., fluctuating commodity sales prices, variable-rate debt, foreign-currency-denominated sales prices). Cash flow hedges can be used to hedge transactions that are yet to occur (i.e., forecasted transactions), where the terms of the transaction are not fixed or locked (in contrast to a “firm commitment,” where the terms are fixed). Cash flow hedges allow entities to manage risks by “locking in” or eliminating the variable or market fluctuations to which they would otherwise be exposed. A common example of a cash flow hedge is using a “pay-fixed/receive-floating” interest rate swap to hedge the future interest expense from variable-rate debt. The use of an interest rate swap in this scenario “locks” the variable interest expense associated with the debt and results in a fixed interest expense that is immune from subsequent market rate fluctuations, benefiting the entity if market rates rise.

Fair value hedges and cash flow hedges are also commonly used to hedge commodity price risk. For example, a commodity wholesaler that is concerned about the risk of falling prices could enter into a fair value hedge to protect the value of its inventory on hand. Approaching the same risk in another fashion, the wholesaler could enter into a cash flow hedge of its forecasted sales to protect against a changed level of future sales prices.

The accounting for foreign currency fair value hedges of unrecognized firm commitments and available-for-sale debt securities, as well as foreign currency cash flow hedges, is essentially the same as that for other fair value and cash flow hedges. In addition, virtually all of the requirements under ASC 815 related to fair value and cash flow hedges also apply to these hedges (along with certain other requirements that are unique to hedges of foreign currency risk). Further, ASC 815 retained the general approach in Statement 52 for hedging net investments in foreign operations.

1.4 Hedge accounting criteria

Entities can apply hedge accounting only to hedging relationships that meet certain criteria under ASC 815 relating to both the derivative instrument and the hedged item. Some of these criteria are specific to the type of hedge (fair value hedge or cash flow hedge), while others are common to both types of hedges. The most significant criteria are described below.

- ▶ At inception of the hedge, there is formal documentation of the hedging relationship and the entity’s risk management objective and strategy for undertaking the hedge, including identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the hedging instrument’s effectiveness in offsetting the exposure to changes in the hedged item’s fair value or cash flows will be assessed.
- ▶ Both at inception of the hedge and on an ongoing basis, the hedging relationship is expected to be highly effective in achieving offsetting changes in fair value or cash flows during the period that the hedge is designated. In order for a cash flow hedge of a forecasted transaction to satisfy this criterion, the transaction has to be *probable* of occurring, both at inception and throughout the life of the hedge. Although ASC 815 provides flexibility in determining how to assess the effectiveness of a hedging relationship, an entity is required to make this assessment whenever it files financial statements or reports earnings and at least every three months.
- ▶ The hedged item presents an exposure to changes in fair value or cash flows that could affect reported earnings (e.g., forecasted intercompany dividends and equity transactions cannot be hedged).

- ▶ The hedged item is *not* related to (1) an asset or liability that is or will be remeasured with changes in fair value attributable to the hedged risk reported currently in earnings (e.g., a trading security), (2) an investment that is or will be accounted for by the equity method or in accordance with ASC 321, (3) a present or future noncontrolling interest in one or more consolidated subsidiaries, (4) a present or future equity investment in a consolidated subsidiary, (5) a future business combination or (6) an equity instrument issued or to be issued by the entity and classified in stockholders' equity.

There can be simultaneous fair value and cash flow hedging of the same item only if different risks are being hedged. For instance, a cash flow hedge can hedge the interest rate risk associated with the variable interest payments on an investment in a debt security, while a fair value hedge is used to hedge the credit risk.

The qualifying criteria for a hedge of a net investment in a foreign operation are generally less stringent than those for fair value or cash flow hedges. Currency translation adjustments from net investments in foreign subsidiaries are recognized in other comprehensive income (OCI) when the foreign subsidiaries are consolidated and translated into the reporting currency of the consolidated entity. To qualify as a hedge of the net investment in a foreign operation, the gain or loss on the hedging instrument has to be effective as an economic hedge of the net investment.

1.5

Accounting treatment of derivatives

Derivatives are *always* carried at fair value on the statement of financial position. Accordingly, the real accounting issue is what is the other side of this journal entry?

If the derivative does not qualify as a hedging instrument, the other side of the journal entry is profit or loss. If it does qualify (i.e., it is appropriately designated and remains highly effective as a hedging instrument), the other side of the journal entry depends on whether the derivative is used in a fair value hedge, a cash flow hedge or a hedge of a net investment in a foreign operation.

For instruments that qualify as fair value hedges, the gain or loss on a derivative instrument included in the assessment of hedge effectiveness, along with the offsetting loss or gain on the hedged item attributable to the hedged risk, is recognized in earnings in the current accounting period. Provided that the hedge qualifies as "highly effective," any difference between the changes in the fair value of the derivative and of the hedged item is effectively forced through earnings.

For derivative instruments that qualify as cash flow hedges, the entire change in the fair value of the hedging instrument included in the assessment of hedge effectiveness is reported as a component of AOCI and reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings.

For instruments that qualify as hedges of a net investment in a foreign operation, the entire change in the fair value of a hedging instrument included in the assessment of hedge effectiveness is reported in AOCI as part of the cumulative translation adjustment until the hedged net investment is sold or liquidated.

For all three types of hedges, any amounts excluded from the assessment of hedge effectiveness are recognized in earnings through an amortization approach, unless the entity makes an accounting policy election to immediately recognize the change in the fair value of any excluded components in earnings.

1.6 Disclosure

Even though all derivatives are required to be recorded at fair value in the financial statements, ASC 815² requires that the financial statement footnotes include extensive quantitative and qualitative disclosures to enhance the user's understanding of how and why an entity uses derivatives, how derivatives and related hedged items are accounted for and how derivatives affect an entity's financial position, results of operations and cash flows. These disclosures provide information regarding an entity's objectives and strategies for using derivatives, its level of derivative activity separated by the type of underlying risk exposure (e.g., interest rate, credit, foreign exchange rate) and the accounting designation (i.e., derivatives designated in fair value hedges, cash flow hedges or net investment hedges, or not designated in a hedging relationship).

While ASC 815 requires disclosures related to all derivative instruments, additional disclosures are required for qualifying hedge accounting relationships.

Information satisfying the disclosure requirements does not have to appear in a single footnote. However, if information is provided in multiple footnotes, it is required to be cross-referenced. Refer to chapter 8 for additional discussion of ASC 815's disclosure requirements.

1.7 Key management considerations

ASC 815 is one of the FASB's more complex standards, and as a result, extensive resources, including system support, may be needed to help make sure entities meet all of its requirements. Our publication is intended to be used as an effective reference tool to assist entities in accounting for derivatives in accordance with ASC 815.

² ASC 815 requires disclosures related to all of an entity's derivative transactions, however, additional disclosures are required for qualifying hedging relationships.

2 Scope and definition

2.1 General scope provisions – who is and is not affected

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Entities

815-10-15-1

This Subtopic applies to all entities. Some entities, such as not-for-profit entities (NFPs) and defined benefit pension plans, do not report earnings as a separate caption in a statement of financial performance. The application of this Subtopic to those entities is set forth in paragraphs 815-10-35-3, 815-20-15-1, 815-25-35-19, and 815-30-15-3.

Although ASC 815 applies to all entities, not all entities are significantly affected by the guidance. Entities that do not hedge and do not have any derivatives, including derivatives embedded in other instruments (as defined by ASC 815), are generally unaffected by ASC 815.

Investment companies and other entities (e.g., benefit plans) that report substantially all of their assets at fair value are also relatively unaffected by the guidance compared to other entities. ASC 815 precludes the hedging of existing or future assets that are remeasured at fair value with changes in fair value reported in earnings. Assuming that these entities' only significant activities relate to buying and selling investments that are carried at fair value, any derivative activity related to those assets would be precluded from being treated as a hedge, and therefore, much of the guidance in ASC 815 would not be applicable. However, ASC 815 would apply to hedging activities related to these entities' liabilities and any other items that are not carried at fair value.

As discussed further in the following sections, if a derivative is not hedging a risk exposure as permitted by ASC 815, the changes in the fair value of the derivative are required to be recognized in income, which is consistent with general practices of investment entities.

Special provisions in ASC 815 govern not-for-profit entities and benefit plans that do not report earnings as a separate caption in the statement of financial performance. Adjustments that would normally be recognized in earnings under ASC 815 (i.e., changes in values of derivatives and hedged items) are instead recognized as part of the change in net assets. However, if an entity hedges the foreign currency risk of a net investment in a foreign operation (i.e., a net investment hedge), changes in the value of the hedging instrument are reported in the cumulative translation adjustment (CTA) section of OCI, along with the changes in the carrying amount of the investment due to changes in the spot exchange rate.

In addition, these entities are not permitted to apply cash flow hedge accounting or to elect the amortization approach for amounts excluded from the assessment of effectiveness of fair value hedging relationships. This preclusion does not apply to not-for-profit health care organizations that are required to present a performance indicator (i.e., the equivalent of net income) in accordance with ASC 954.³

³ Not-for-profit entities that follow ASC 954 report an earnings measure because they present a performance indicator (generally, revenues in excess of expenses). ASC 954-815-25-1, 25-2, 45-1 and 50-1 address how not-for-profit health care organizations should report gains or losses on hedging and non-hedging derivative instruments under ASC 815, including cash flow hedges, and clarify certain matters related to the performance indicator (earnings measure) reported by these entities.

2.2 Viewing two or more contracts as a unit when applying ASC 815

ASC 815 provides guidance on determining when to consider two or more separate transactions in combination if the purpose of entering into them separately is to circumvent the standard's provisions. ASC 815-10-15-9 provides that in some circumstances, an entity would enter into two or more legally separate transactions that, if combined, would generate a result that is economically similar to entering into a single transaction that would be accounted for as a derivative under ASC 815. Therefore, the following indicators should be considered in the aggregate and, if present, cause the separate transactions to be accounted for as one unit:

- ▶ The transactions were entered into contemporaneously and in contemplation of each other.
- ▶ The transactions were executed with the same counterparty (or structured through an intermediary).
- ▶ The transactions relate to the same risk.
- ▶ There is no apparent economic need or substantive business purpose for structuring the transactions separately that could not also have been accomplished in a single transaction.

Illustration 2-1: Example of combining contracts

Entity A enters into a forward contract to purchase 1,000,000 shares of Entity B's stock in six months for \$5 per share. Simultaneously, Entity A enters into a forward contract to sell 900,000 shares of Entity B's stock in six months for \$5 per share. The purchase and sale contracts are both with Entity C.

There is no market mechanism to facilitate net settlement of the contracts, and both contracts require physical delivery of Entity B's shares in exchange for the forward price. On a gross basis, neither contract is readily convertible to cash because the market cannot rapidly absorb the specified quantities without significantly affecting the share price (e.g., the trading volume for Entity B's shares is currently about 100,000 shares daily). However, on a net basis, Entity A has a forward purchase contract to buy 100,000 of Entity B's shares, a quantity that can be rapidly absorbed by the market and thus is readily convertible to cash.

Since the transactions were executed simultaneously with the same counterparty, and related to the same risk, and because there is no clear business purpose for structuring the transactions separately, the two forward contracts should be combined and accounted for as a derivative by Entity A, because the structured transaction circumvents the application of derivative accounting pursuant to ASC 815.

In addition, ASC 815-10-25-6 addresses a similar but slightly different question – whether two freestanding derivative instruments should be viewed as a single unit. This guidance provides essentially the same indicators for consideration that are in ASC 815-10-15-9. In practice, determining whether two or more contracts, including two or more freestanding derivatives, have been transacted separately with the intent of circumventing GAAP and, therefore, should be combined is based on facts and circumstances and requires the use of professional judgment. However, the Securities and Exchange Commission (SEC) staff has said it would challenge the accounting for transactions for which it appears that multiple contracts have been used to circumvent GAAP.

2.3 What is a derivative?

ASC 815 defines derivatives based on their characteristics. The Board chose this approach because they believed continued innovations in the financial markets would render obsolete any definition based simply on listings of particular instruments that are commonly considered to be derivatives. Accordingly, when applying ASC 815 and determining which contracts are subject to its requirements, it is essential to understand the characteristics that define a derivative. These characteristics are discussed further in section 2.4.

In addition to understanding the essential characteristics of a derivative, it is important to be aware of certain contracts or transactions that the Board chose to specifically exclude from the scope of ASC 815, despite the fact that they meet the definition of a derivative. These scope exceptions are discussed further in section 2.5.

Most instruments that are commonly considered to be derivatives will meet ASC 815's definition. These instruments include:

- ▶ Swaps
- ▶ Options, including caps, floors and collars (cap/floor combinations)
- ▶ Swaptions (options to enter into swaps)
- ▶ Futures
- ▶ Forward contracts

Additionally, certain items such as convertible debt held as an investment, some commodity purchase and sale agreements (including those entered into by commercial entities), some structured notes and some insurance contracts will also, in whole or in part, meet the ASC 815 definition of a derivative.

2.4 The characteristics of a derivative (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Definition of Derivative Instrument

815-10-15-83

A derivative instrument is a financial instrument or other contract with all of the following characteristics:

- a. Underlying, notional amount, **payment provision**. The contract has both of the following terms, which determine the amount of the settlement or settlements, and, in some cases, whether or not a settlement is required:
 1. One or more underlyings
 2. One or more notional amounts or payment provisions or both.
- b. Initial net investment. The contract requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors.
- c. Net settlement. The contract can be settled net by any of the following means:
 1. Its terms implicitly or explicitly require or permit net settlement.
 2. It can readily be settled net by a means outside the contract.
 3. It provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement.

To be a derivative under ASC 815, an instrument is required to be a financial instrument or other contract whose cash flows or fair value fluctuates based on the changes in one or more *underlyings*. The contract also is required to contain one or more *notional amounts* or payment provisions, or both. The underlying and notional amount or the payment provision determines the amount of settlement, or even whether a settlement is required.

The net settlement criterion is satisfied if (1) the contract itself provides for net settlement, (2) it can readily be settled net by a market mechanism outside the contract or (3) the contract provides for delivery of an asset that is readily convertible to cash and puts the recipient in a position not substantially different from an explicit contractual *net settlement* provision. The three alternatives for satisfying the net settlement criteria, along with the expansive notion of what may constitute an underlying variable (such as the occurrence or non-occurrence of event), are responsible for the broad reach of the definition of a derivative under ASC 815.

How we see it

ASC 815's broad definition of a derivative can capture contracts or transactions that many entities have not historically thought of as derivatives, such as research and development funding arrangements, litigation funding arrangements, and financial instruments with terms linked to environment, social and governance (ESG) factors. Entities should carefully analyze the terms of their contracts or transactions to determine whether they contain all of the required characteristics to be considered a derivative (or contain a derivative) and, if so, whether any scope exceptions would apply.

Many stakeholders believe that the current definition in ASC 815 encompasses contracts or transactions that were not intended to be accounted for as derivatives by the Board that originally developed Statement 133, or where fair value measurement does not provide decision-useful information to financial statement users. In response to this feedback, the FASB added a project to its research agenda to explore potential refinements to the definition of a derivative or to existing scope exceptions. Interested parties should monitor developments in this area.

2.4.1

The underlying

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Underlying

815-10-15-88

An underlying is a variable that, along with either a notional amount or a payment provision, determines the settlement of a derivative instrument. An underlying usually is one or a combination of the following:

- a. A security price or security price index
- b. A commodity price or commodity price index
- c. An interest rate or interest rate index
- d. A credit rating or credit index
- e. An exchange rate or exchange rate index
- f. An insurance index or catastrophe loss index
- g. A climatic or geological condition (such as temperature, earthquake severity, or rainfall), another physical variable, or a related index
- h. The occurrence or nonoccurrence of a specified event (such as a scheduled payment under a contract).

815-10-15-89

However, an underlying may be any variable whose changes are observable or otherwise objectively verifiable. An underlying may be a price or rate of an asset or liability but is not the asset or liability itself.

The underlying is a variable whose movements cause the fair value or cash flows of a derivative to fluctuate. Examples of underlyings in typical derivatives include the Secured Overnight Financing Rate (SOFR) in an interest rate swap, the price of crude oil in a forward crude oil contract or the exchange rate of a foreign currency in a foreign currency option. An underlying can also be binary, acting as an “off/on” switch, based on the occurrence or nonoccurrence of a specified event, such as a change in control event, the occurrence of a regulatory action or the nonoccurrence of a scheduled payment under a contract.

When the underlying fluctuates, the fair value of the derivative and the amount of cash projected to be exchanged between the parties change. For example, as the foreign exchange rate changes, the fair value of a foreign currency option will increase or decrease. In most derivative contracts, the price or rate related to the underlying will be fixed. Although a contract to transact in the future at whatever the market price is at that future date technically has an underlying and could be considered to be a derivative, its fair value will generally be zero.

Some derivatives have multiple underlyings. Further, the interaction of the underlying and notional amount may be a simple multiplication (e.g., the change in SOFR multiplied by the notional amount) or involve a formula or significant leverage (e.g., four times the change in SOFR multiplied by the notional amount). When an underlying consists of the occurrence or nonoccurrence of a specified event, the occurrence or nonoccurrence of the event triggers a payment (either fixed or formula driven). Changes in the estimated probability of the occurrence or nonoccurrence of the underlying event will cause the fair value of the contract to change.

2.4.2

Notional amount or payment provision

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Notional Amount

815-10-15-92

A notional amount is a number of currency units, shares, bushels, pounds, or other units specified in the contract. Other names are used, for example, the notional amount is called a **face amount** in some contracts. The settlement of a derivative instrument with a notional amount is determined by interaction of that notional amount with the underlying. The interaction may be simple multiplication, or it may involve a formula with leverage factors or other constants. As defined in the glossary, the **effective notional amount** is the stated notional amount adjusted for any leverage factor. If a requirements contract contains explicit provisions that support the calculation of a determinable amount reflecting the buyer’s needs, then that contract has a notional amount. See paragraphs 815-10-55-5 through 55-7 for related implementation guidance. For implementation guidance on identifying a commodity contract’s notional amount, see paragraph 815-10-55-5.

Payment Provision

815-10-15-93

As defined in the glossary, a payment provision specifies a fixed or determinable settlement to be made if the underlying behaves in a specified manner. For example, a derivative instrument might require a specified payment if a referenced interest rate increases by 300 basis points.

While the underlying is the variable in a derivative, the notional amount is the quantity that determines the size of the change caused by the movement of the underlying. Examples include the stated notional amount in an interest rate swap, the stated number of bushels in a wheat futures contract, the number of barrels in a crude oil swap contract, the number of shares in an option contract and the contracted amount of euros in a foreign currency forward.

How we see it

Notional amounts exist in most contractual relationships. For example, a purchase order to acquire a specific quantity of a raw material would likely have a notional amount and an underlying. However, to be accounted for as a derivative, the contract would also need to possess the other characteristics and not qualify for one of the scope exceptions in ASC 815.

A payment provision is an alternative to a notional amount and specifies a fixed or determinable settlement to be made if the underlying behaves in a specified manner. For example, shirt manufacturer A and cotton merchant B enter into a contract whereby B will supply A with 1,000,000 bales of cotton at a fixed price of 55 cents per bale over a defined period, unless the spot price of cotton rises above 70 cents per bale at any time during that period. In this event, shirt manufacturer A must pay cotton merchant B an additional \$100,000. In this case, the underlying is the market price of cotton, the notional is 1,000,000 bales of cotton, and the payment provision is \$100,000.

2.4.2.1

Lack of a specified notional amount

Commodity contracts generally specify a fixed number of units of a commodity to be purchased or sold under a contract. However, some contracts (e.g., requirements contracts) do not specify a fixed number of units to be exchanged but instead provide for the delivery of the number of units that are needed during a specified period. These contracts may also specify either a maximum and/or minimum number of units or a range of units to be purchased or sold during a specified period. In these circumstances, it may be challenging to determine whether the notional amount or payment provision criteria are met. ASC 815-10-55-5 through 55-7 contains examples that illustrate considerations for when requirements contracts may or may not contain a notional amount.

The lack of a specified fixed number of units does not in and of itself exempt the contract from being defined as a derivative under ASC 815. When the buyer is relying exclusively on the seller to supply all of its needs in a given commodity, it is important from the buyer's perspective that the seller be knowledgeable of the anticipated needs under the contract. Therefore, in certain contracts, even though the notional amount is not specified, it can be reliably determined based on other provisions in the contract or in agreements contemporaneous to the contract. When the quantity to be delivered can be determined from the contractual relationship between the parties, the contract has a notional amount.

The contract's settlement and default provisions should be considered when determining the notional amount in a requirements contract, where otherwise not provided. Often the default provisions of requirements contracts will refer to anticipated quantities to use in the calculation of penalty amounts in the event of nonperformance.

Other default provisions stipulate penalty amounts in the event of nonperformance based on the buyer's average historical usage quantities. If those amounts are determinable, they should be considered the notional amount of the contract. The identification of a requirements contract's notional amount may require consideration of volumes or formulas contained in attachments or appendices to the contract or other legally binding side agreements.

The determination of a requirements contract's notional amount is required to be performed over the life of the contract and could result in the fluctuation of the notional amount if, for instance, the default provisions reference an average based on historical usage. When the notional amount is not reliably determinable, making the quantification of such an amount highly subjective and relatively unreliable (for example, if a contract does not contain settlement and default provisions that explicitly reference quantities or provide a formula based on historical usage), the contract is considered not to contain a notional amount as that term is used in ASC 815. Such contracts do not meet the definition of a derivative under ASC 815 and, therefore, are not subject to its provisions.

The guidance in ASC 815-10-55-5 through 55-7 generally does not apply to contracts that are not considered requirements contracts (e.g., where one party can acquire units in excess of its actual needs). Therefore, careful consideration should be given as to whether these contracts represent option contracts with a notional amount.

For example, a contract that provides an entity with the right to purchase any number of units of a commodity from a seller (regardless of its actual needs) up to a stated maximum amount would generally be deemed a purchased option with a notional equal to the stated maximum amount. Accordingly, if that contract had the other characteristics of a derivative and did not qualify for any of the scope exceptions discussed in section 2.5, it would be accounted for as a derivative instrument.

2.4.3

No (or smaller) initial net investment

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Initial Net Investment

815-10-15-94

Many derivative instruments require no initial net investment. Some require an initial net investment as compensation for one or both of the following:

- a. Time value (for example, a premium on an option)
- b. Terms that are more or less favorable than market conditions (for example, a premium on a forward purchase contract with a price less than the current forward price).

Others require a mutual exchange of currencies or other assets at inception, in which case the net investment is the difference in the fair values of the assets exchanged.

815-10-15-95

A derivative instrument does not require an initial net investment in the contract that is equal to the notional amount (or the notional amount plus a premium or minus a discount) or that is determined by applying the notional amount to the underlying. For example:

- a. A commodity futures contract generally requires no net investment, while purchasing the same commodity requires an initial net investment equal to its market price. However, both contracts reflect changes in the price of the commodity in the same way (that is, similar gains or losses will be incurred).
- b. A swap or forward contract generally does not require an initial net investment unless the terms favor one party over the other.
- c. An option generally requires that one party make an initial net investment (a premium) because that party has the rights under the contract and the other party has the obligations.

815-10-15-96

If the initial net investment in the contract (after adjustment for the time value of money) is less, by more than a nominal amount, than the initial net investment that would be commensurate with the amount that would be exchanged either to acquire the asset related to the underlying or to incur the obligation related to the underlying, the characteristic in paragraph 815-10-15-83(b) is met. The amount of that asset acquired or liability incurred should be comparable to the effective notional amount of the contract. This does not imply that a slightly off-market contract cannot be a derivative instrument in its entirety. That determination is a matter of facts and circumstances and shall be evaluated on a case-by-case basis. Example 16, Case C (see paragraph 815-10-55-166) illustrates the guidance in this paragraph.

815-10-15-97

A contract that requires an initial net investment in the contract that is in excess of the amount determined by applying the effective notional amount to the underlying is not a derivative instrument in its entirety. Example 16, Case A (see paragraph 815-10-55-150) illustrates such a contract.

815-10-15-98

The phrase *initial net investment* is stated from the perspective of only one party to the contract, but it determines the application of this Subtopic for both parties. Even though a contract may be a derivative instrument as described in paragraphs 815-10-15-13 through 15-139 for both parties, the scope exceptions in paragraphs 815-10-15-74 through 15-75 apply only to the issuer of the contract and will result in different reporting by the two parties. The normal purchases and sales scope exception (beginning in paragraph 815-10-15-22) also may apply to one of the parties but not the other.

Parties to a derivative contract generally do not have to initially invest in, own or exchange an associated asset or liability. In fact, there is commonly no exchange of cash (or a relatively small one) at the date that two parties enter into a derivative contract.

Many currency swaps require an exchange of the underlying currencies at inception (and again at maturity). However, because this initial exchange of currencies typically occurs at fair value (that is, at spot exchange rates), it is considered to be an exchange of one kind of cash for another kind of cash at the same value. The initial investment is considered to be the difference in the values, if any, that are exchanged. Therefore, such a contract is considered to have zero, or a relatively small, initial net investment.

Though some contracts can settle through physical delivery (e.g., futures, forwards), a derivative represents an investment in the change in value caused by the underlying. It is neither an actual investment in the notional amount or quantity nor an investment in an amount determined by applying the notional amount to the underlying.

For example, an entity that wants to participate in the appreciation (or depreciation) of ABC common stock has several alternatives. It can buy shares of ABC common stock outright, which would require an initial investment equal to the value of the shares. However, it can participate in the changes in the fair value of ABC common stock equally by entering into a forward or an option contract that has a notional and an underlying equal to the shares it wishes to participate in. A forward contract would require no initial investment, but at maturity of the contract, the entity would purchase ABC common stock at the forward price originally set by the contract. The entity would benefit if the subsequent market price of ABC common stock was greater than the forward contract price or suffer if the subsequent price was lower, similar to if the entity had owned the stock all along.

Alternatively, a call option contract would allow the entity to purchase ABC common stock at a price set today, no matter how much it might appreciate (if ABC common stock depreciates, the call option would have no value to the entity). A call option requires the entity to pay a premium because the option contract does not require the entity to buy ABC stock at the call exercise price if it subsequently depreciates. However, this initial investment is smaller than would be required if the entity were to purchase ABC common shares outright. For a substantially smaller investment, the entity participates in all of the appreciation of ABC common stock (but no depreciation) over the life of the option.

Some derivatives require an initial net investment as compensation for time value (e.g., option premiums) or for “off-market” terms (e.g., a premium on an interest rate swap that pays the holder a higher fixed rate than current market rates would indicate). To possess the characteristics of a small initial investment, the initial investment needs to be smaller than what would be expected in an instrument that has a similar response to changes in market rates.

For example, if A writes a call option to B that allows B to buy 100,000 barrels of crude oil at \$38 per barrel over the next five days when the market price of crude is \$43 per barrel, B would be expected to pay at least \$5 per barrel as a premium for the option. Even though the premium or initial investment is in excess of \$500,000, it is significantly less than the current market value of the underlying crude of \$4.3 million. Thus, the option would satisfy the initial investment characteristic of a derivative.

2.4.3.1 Certain derivatives with initial net investments greater than zero

ASC 815 does not include set percentages when addressing how much smaller the initial net investment needs to be. Rather, it indicates that if the initial net investment in the contract (after adjustment for the time value of money) is less, *by more than a nominal amount*, than the initial net investment that would be commensurate with the amount⁴ that would be exchanged to acquire the asset related to the underlying (or to incur the obligation related to the underlying), the “no or smaller initial net investment” characteristic is met.

The language describing the initial net investment in ASC 815-10-15-97 and 55-148 through 55-168 is complex because the FASB was trying to anticipate how the guidance might apply to structured transactions. For example, the FASB recognized that swap contracts that would otherwise satisfy all the characteristics of the derivative definition could be made to look a lot like loans, not derivatives, if the fixed-rate payer were to *prepay* the present value of all the contracted fixed payments under the swap while the floating-rate payer fulfilled its obligations over the life of the contract. The guidance addresses this situation, as well as iterations of the base case, and represents the best available guidance for how the FASB’s guidance on “initial net investment” is intended to be interpreted.

The following exhibit summarizes the three prepaid interest rate swap cases in ASC 815-10-55-148 through 55-168. In each case, the entity prepays its fixed leg and receives eight quarterly floating payments (based on a \$10,000,000 effective notional amount) equal to the three-month USD London Interbank Offered Rate (LIBOR) plus a spread. However, in each case, the amount of the prepayment differs, and the spread over three-month USD LIBOR differs. In all three cases, the market two-year LIBOR swap rate is 6.65%.

| Illustration 2-2: Analysis of “initial net investment” criteria to prepaid swaps | | | |
|--|---|--|---|
| | Prepaid swap 1 | Prepaid swap 2 | Prepaid swap 3 |
| (1) Amount determined by applying “effective notional” to the underlying (and adjusting for time value of money) ⁵ | \$ 1,228,179 | \$ 1,228,179 | \$ 1,228,179 |
| Spread relative to three-month USD LIBOR on floating leg | -0- | +3.00% | -1.00% |
| Annual fixed leg rate | 6.65% | 9.65% | 5.65% |
| (2) Initial net investment ⁶ | \$ 1,228,179 | \$ 1,782,245 | \$ 1,043,490 |
| (3) Difference (1)-(2) | -0- | Negative | \$ 184,689 |
| Percentage difference (3) / (1) | -0- | N/A | 15% |
| Conclusion | Initial net investment is substantial; contract is a hybrid debt instrument that is evaluated for embedded derivatives. (See chapter 3) | Initial net investment exceeds amount in row (1); contract is a hybrid debt instrument that is evaluated for embedded derivatives. | Initial net investment is “less by more than a nominal amount” than the amount in row (1); contract is a derivative in its entirety, but has an “other-than-insignificant” financing element. |

⁴ The amount of the asset acquired or liability incurred should be comparable to the notional amount (adjusted as necessary for any leverage factor) of the contract.

⁵ For all three examples: Equal to the present value of eight quarterly fixed-leg swap payments of \$166,250 [\$10,000,000 effective notional (adjusted for leverage factors) x 6.65% market LIBOR swap rate/4 quarters] discounted at the implied spot rate (zero coupon rate) for each of the eight payment dates under the assumed yield curve for these examples. Note that the underlying is always considered to be the relevant market LIBOR swap rate, irrespective of the spread on the floating leg of the swap or the overall rate on the fixed leg of the swap. Because the LIBOR swap rate reflects the applicable portions of the forward three-month LIBOR rate curve for the settlement dates that relate to specific payments under the swap, the initial net investment is considered to have been “determined by applying the effective notional amount to the underlying” and then adjusted for the time value of money.

⁶ Represents present value of fixed leg of swap, prepaid at inception.

How we see it

Instead of referring to a fixed amount or a percentage, the FASB intentionally used words such as “more than a nominal amount” in the guidance. However, practitioners often seek some sort of mathematical guide to help interpret these words. The example in ASC 815-10-55-148 through 55-168 provides some insight on how the FASB views an amount that was *clearly* “more than nominal.”

For instance, in the “prepaid swap 3” example in the table above, the initial net investment of \$1,043,490 is compared with \$1,228,179, which is an amount determined by applying the effective notional amount to the underlying and adjusting for the time value of money. In this example, the initial net investment is less than the amount determined by applying the effective notional amount to the underlying by 15%, and this amount is deemed to clearly be “more than a nominal amount,” thus meeting this characteristic of a derivative.

But the example points out that 15% is not to be interpreted as a bright line between “less by more than a nominal amount” and “less by only a nominal amount.” In fact, the guidance states that a percentage lower than 15% could still be considered “less by more than a nominal amount.” For example, many believe that an initial net investment that is 10% lower than the amount determined by applying the effective notional amount would meet the criteria of a small initial investment.

On the other end of the spectrum, 5% has emerged in practice as a percentage below which it would be difficult to argue that the effective notional amount is anything other than “less by only a nominal amount.” Accordingly, the characteristic would not be satisfied in this case. Judgment is required when determining whether initial investments in the 5% to 10% range represent a small initial investment.

2.4.3.2

Derivatives containing other-than-insignificant financing elements

Contracts like “prepaid swap 3” in the illustration above, which require an up-front cash payment, are deemed to be derivatives. However, unlike derivatives characterized by a zero initial net investment, they may have an other-than-insignificant financing element to them. Determining whether the financing element in a derivative is other than insignificant is a matter of judgment. An indicator of the presence of a financing element is a derivative that at inception includes off-market terms, rates or prices.

ASC 815-10-45-12 requires entities to report all cash flows associated with a derivative that contains an other-than-insignificant financing element at its inception as “cash flows from financing activities” in the statement of cash flows. This requirement relates to all cash flows from the derivative and not just the portion of the cash flows relating to the financing element of the derivative. Therefore, the periodic cash flows over the life of the derivative, as well as any cash flow at its inception, would be treated as cash flows from financing activities. This requirement applies only to the contractual party deemed to be the “borrower” in the arrangement.

It is important to note that an other-than-insignificant financing element does not necessarily have to exist at the inception of the contract. It could also arise over the life of the derivative when the contractual terms of a derivative are engineered to make sure that net payments will be made by one party in the earlier periods and subsequently returned by the counterparty in the later periods of the derivative’s term.

Such “structured” derivatives might still have a fair value of zero at inception (that is, no initial cash flows), but they would be subject to this requirement. All cash flows from such a derivative that has a financing element that is other than insignificant would be reflected as financing activities in the statement of cash flows. In addition, as discussed further in section 8.15.2, when an existing derivative instrument is amended, the modified instrument may contain an other-than-insignificant financing element.

How we see it

“Prepaid swap 1” and “prepaid swap 2” in the illustration above are considered hybrid debt instruments, not freestanding derivatives. Accordingly, ASC 230-10-45-14 and 45-15 would already govern the cash flow statement classification of cash inflows and cash outflows related to these instruments, and the application of this guidance would likely indicate that their classification as “cash flows from financing activities” is appropriate.

The requirement for reporting cash flows as financing activities is not intended to apply to “plain-vanilla” interest rate swaps that are contracted at market terms at inception, with no up-front exchange of cash flows. Such interest rate swaps, because of the shape of the forward yield curve at inception, might have an expectation that the comparison of the fixed and floating legs will result in payments being made by one party in the earlier periods and by the counterparty in the later periods of the swap’s term.

This type of plain-vanilla swap has not been structured to ensure a particular cash flow direction in any specific period and is therefore not considered to have a financing element present at inception. Likewise, the forward points associated with an at-the-money forward contract are not considered to be the types of financing elements that this requirement is intended to address.

In addition, up-front payments typical of at-the-money and out-of-the-money option contracts are payments made to the writer of the option for the option’s “time value” (extrinsic value) and should not be viewed as evidence that the derivative has an other-than-insignificant financing element subject to this requirement.

2.4.4

Net settlement

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Net Settlement

815-10-15-99

A contract fits the description in paragraph 815-10-15-83(c) if its settlement provisions meet criteria for any of the following:

- a. Net settlement under contract terms
- b. Net settlement through a market mechanism
- c. Net settlement by delivery of derivative instrument or asset readily convertible to cash.

Net settlement is an essential characteristic of a derivative. Net settlement is a one-way transfer of an asset, usually cash, from the counterparty in a loss position to the counterparty in a gain position to settle the obligation. In contrast, a gross settlement involves an exchange whereby Party A transfers cash to Party B and Party B transfers an asset to Party A. To be a derivative, the contract has to either explicitly permit net settlement or put the receiving party in a position that is essentially equivalent to net settlement.

ASC 815 provides three ways for meeting the net settlement criteria, which are discussed separately below.

2.4.4.1

Contractual net settlement**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Overall***Scope and Scope Exceptions**Net Settlement Under Contract Terms***815-10-15-100**

In this form of net settlement, neither party is required to deliver an asset that is associated with the underlying and that has a principal amount, stated amount, face value, number of shares, or other denomination that is equal to the notional amount (or the notional amount plus a premium or minus a discount). (For example, most interest rate swaps do not require that either party deliver interest-bearing assets with a principal amount equal to the notional amount of the contract.) Net settlement may be made in cash or by delivery of any other asset (such as the right to receive future payments—see the discussion beginning in paragraph 815-10-15-104), whether or not that asset is readily convertible to cash.

In a contractual net settlement, the terms of the contract implicitly or explicitly permit or require net settlement. Net settlement may be in the form of cash or assets other than cash, even if those assets are not readily convertible to cash (e.g., a “cashless exercise” of an equity warrant, as discussed later in this section). If the notional amount of the underlying has to be delivered, the contractual net settlement criteria are not met.

An interest rate swap is an example of a contract that typically calls for contractual net settlement. Over the life of a swap, as interest rates change, one party is required to pay the other party an amount in cash based on the current interest rate indexed in the swap and the contractual fixed interest rate applied to the notional amount. The net payments are based on the difference in interest amounts and not the full interest rate or the gross amount or fair value of the notional amount.

Penalties for nonperformance. ASC 815 indicates that penalties for nonperformance could meet the criterion of net settlement if the amount of the penalty is based on changes in the price of the items that are the subject of the contract (i.e., a variable penalty). Alternatively, a penalty for nonperformance that is a fixed amount or fixed amount per unit is not a net settlement provision under ASC 815 (i.e., a fixed penalty). As a result, any contract that contains solely a variable penalty for nonperformance that is based on the change in price of the underlying items will generally satisfy the net settlement provision and, depending on the other terms of the contract, could represent a derivative under ASC 815.

In certain situations, a contract may contain both a variable and fixed penalty for nonperformance. ASC 815-10-15-103 indicates that a contract that contains a variable penalty for nonperformance based on changes in the price of the items that are the subject of the contract would not contain a net settlement provision under ASC 815 if that contract also contained an incremental penalty of a fixed amount (or fixed amount per unit) expected to be significant enough at all dates during the contract’s remaining term to make the possibility of nonperformance remote. If a contract includes such a provision, it effectively requires the party to the contract to deliver an asset that is associated with the underlying. The significance of the fixed incremental penalty needs to be evaluated only at the inception of the contract and should be assessed on a standalone basis as a disincentive for nonperformance, rather than in relation to the overall penalty.

Asymmetrical default provisions. Certain contracts contain default provisions that require only the defaulting party (i.e., the party that fails to make or take physical delivery of the commodity) to make the non-defaulting party whole economically. These provisions usually function as follows:

- ▶ If the buyer under the contract defaults (i.e., does not take physical delivery of the commodity), the seller will have to find another buyer in the market to take delivery. If the price received in the market by that seller is less than the contract price negotiated with the original buyer, the seller incurs a loss equal to the quantity of the commodity that would have been delivered under the

contract, multiplied by the difference between the contract and actual market prices. The original buyer has to pay a penalty for nonperformance to the seller that is equal to the loss incurred. If the value of the commodity had risen, a penalty would not be due.

- ▶ If the seller defaults (i.e., does not deliver the commodity), the buyer will have to find another seller in the market. If the price paid by the buyer is more than the contract price negotiated with the original seller, the buyer incurs a loss equal to the quantity of the commodity that would have been purchased under the contract, multiplied by the difference between the contract and actual market prices. The original seller has to pay a penalty for nonperformance to the buyer that is equal to the loss incurred. If the value of the commodity had fallen, a penalty would not be due.

Asymmetrical default provisions are designed to compensate only the non-defaulting party for a loss incurred. The defaulting party cannot demand payment from the non-defaulting party to realize the changes in market price that would be favorable to the defaulting party if the contract were honored. Because asymmetrical default provisions reward only the non-defaulting party for losses incurred, and the defaulting party cannot recognize a gain by defaulting, these types of default provisions do *not* constitute a net settlement provision as described in ASC 815-10-15-103 and 55-10 through 55-18.

Symmetrical default provisions. Other contracts may contain default provisions that require the party in a loss position to make the party in a gain position whole economically, regardless of which party is the defaulting party. Symmetrical default provisions are customary in contracts executed under certain International Swaps and Derivatives Association (ISDA) master agreements (master agreement). In general, a master agreement is part of a larger framework of governing documents that set standardized terms and conditions for applicable over-the-counter (OTC) derivative transactions between two or more parties, such as transactions between financial institutions or a financial institution and a corporate end user. These standardized terms and conditions are broad in nature, covering matters such as the ability of the parties to net amounts due or to transfer contractual rights and/or obligations.

The standardized terms and conditions also define certain events of default that provide for optional or required termination of the contract. For example, a failure of either party to pay amounts due or deliver the underlying pursuant to the terms of the contract is generally identified as an event of default that could require termination. Upon termination, the contract is canceled, and an amount is calculated to settle all remaining contractual obligations.

The termination amount is the sum of (1) the closeout amount (aggregate gains, losses and/or costs that would be realized or incurred under the prevailing circumstances in replacing or providing for the economic equivalent of the contract) and (2) any unpaid amounts due between the parties. That is, it represents the “economic value” of the contract at the point of termination.

Once that amount is determined, it is paid by the party in the loss position to the party in the gain position, regardless of which party is the defaulting party. This payment settles the contract and supplants full performance under the stated terms of the contract that might have, for example, otherwise required physical settlement of the contract. Therefore, we generally believe these types of default provisions constitute a contractual net settlement provision as described in ASC 815-10-15-103(a).

In addition to the default provisions of the master agreement, it is common for similar provisions to exist in the other governing documents, such as the applicable ISDA derivatives definitions (definitions) and the trade confirmation for the individual transaction.

For example, an OTC equity derivative typically references the definitions that outline a subset of standardized terms and conditions specific to transactions that involve equity securities or indexes. Depending on the elections made by the parties to the contract, those definitions may provide for cancellation of the contract upon, for example, a merger event that results in a change of the majority ownership of the entity or a change in circumstance that significantly affects the ability of either party to hedge its exposure to the contract.

In these situations, an amount is calculated that effectively represents the economic value of the contract at the time of such event, and that amount is paid by the party in the loss position to the party in the gain position. Because these events are typically outside the control of either party to the contract and are not the result of a party failing to perform under the terms of the contract, the concept of defaulting and non-defaulting parties is generally not applicable. However, because these provisions provide for both parties to realize the benefit or incur the loss associated with changes in the market price of the underlying, respectively, we generally believe they also constitute net settlements provisions as described in ASC 815-10-15-100 through 103.

In addition to the trade confirmation, all documents that govern a transaction, particularly those within the ISDA framework of standardized terms and conditions, should be carefully evaluated since they often contain provisions that constitute net settlement. This may be the case even though net settlement would only apply upon the occurrence of specified events that are unlikely or remote.

For example, an entity may execute an OTC equity derivative (forward contract) that involves the purchase of a significant number of shares of a public company in exchange for a fixed price. If the entity's goal is to make a strategic investment in the public company, it may structure the contract to physically settle and take delivery of the full notional of the contract, as opposed to net settle with the party in the loss position making a payment to the party in the gain position.

Further, if the notional of the contract is so significant in relation to the trading volume of the public company's shares that it cannot be considered readily convertible to cash as discussed in section 2.4.4.3, one might conclude that the contract does not meet the net settlement element of the definition of a derivative. However, if this contract were executed under a master agreement with reference to the applicable definitions, it is likely that the provisions discussed above or other provisions exist that would result in the instrument meeting the net settlement criteria in ASC 815-10-15-83.

2.4.4.2

Existence of a market mechanism

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Primary Characteristics of Market Mechanism

815-10-15-110

In this form of net settlement, one of the parties is required to deliver an asset of the type described in paragraph 815-10-15-100, but there is an established market mechanism that facilitates net settlement outside the contract. (For example, an exchange that offers a ready opportunity to sell the contract or to enter into an offsetting contract.) Market mechanisms may have different forms. Many derivative instruments are actively traded and can be closed or settled before the contract's expiration or maturity by net settlement in active markets.

The second method of net settlement considers the environment in which the contract will be consummated. If the contract can be readily net settled through the use of a market mechanism, it has the net settlement characteristic of a derivative. The term "market mechanism" should be interpreted very broadly to include any institutional arrangement or other agreement that enables either party to be relieved of all rights and obligations under the contract and to liquidate its position without incurring a significant transaction cost.

The evaluation of whether a market mechanism exists is performed at the inception of a contract and on an ongoing basis throughout a contract's life as required by ASC 815-10-15-118.⁷ While the FASB believes that the term "market mechanism" should be interpreted broadly, the guidance in ASC 815-10-15-111

⁷ Subsequent evolution of a "market mechanism" for a particular type of contract could cause a contract initially assessed as not net settleable to become a derivative in later periods. If this occurs, the contract is recorded at its then-current fair value, with the offsetting entry to earnings. The contract is eligible to be designated as a hedging instrument only after it is accounted for as a derivative. See ASC 815-10-15-3, 25-2 and 25-3, 30-3, 45-8, 55-84 and 55-86 through 55-89, and 815-20-55-44A through 55-44C.

and 55-91 through 55-98 clarifies that the ability to enter into an offsetting contract, in and of itself, does not constitute a market mechanism when the rights and obligations from the original contract survive. The fact that an entity has *offset* its rights and obligations under an original contract with a new contract does not by itself indicate that its rights and obligations under the original contract have been relieved.

For example, entities often engage in commodity transactions through a central pricing “hub” and effectively offset the economic impact of one commodity transaction by entering into a transaction with another counterparty. However, the contractual rights and obligations of the first contract are merely offset and not relieved, even if the offsetter instructs the first contract counterparty to deliver to the second contract counterparty. Each of the parties to each of the two contracts looks to its respective counterparties for performance. In contrast, an exchange that trades futures contracts offers a ready opportunity to enter into an offsetting contract that can cancel the rights and obligations of another futures contract (because the counterparty legally is the futures exchange itself). Thus, the futures exchange constitutes a market mechanism.

The guidance in ASC 815-10-15-110 through 15-116 indicates that a “market mechanism” could have different forms. ASC 815-10-15-111 states that an established market mechanism is required to have all four of the primary characteristics described in the table below. To determine if a primary characteristic is present, entities should consider the accompanying indicators. However, all of the indicators need not be present for an entity to conclude that the characteristic is present.

| Illustration 2-3: Four primary characteristics of an established market mechanism | |
|---|---|
| Primary characteristic of a market mechanism (all must be present) | Indicators that primary characteristic is met |
| 1. It is a means to settle a contract that enables one party to readily liquidate its net position under the contract. | <ul style="list-style-type: none"> ▶ Access to potential counterparties is available regardless of the seller’s size or market position. ▶ Risks assumed by a market maker as a result of acquiring a contract can be transferred by a means other than repackaging the original contract into a different form. |
| 2. It results in one party to the contract becoming fully relieved of its rights and obligations under the contract. | <ul style="list-style-type: none"> ▶ There are multiple market participants willing and able to enter into a transaction at market prices to assume the seller’s rights and obligations under a contract. ▶ There is sufficient liquidity in the market for the contract, as indicated by the transaction volume, as well as a relatively narrow observable bid/ask spread. |
| 3. Liquidation of the net position does not require significant transaction costs. | <ul style="list-style-type: none"> ▶ An entity should consider transaction costs to be significant if they are 10% or more of the fair value of the contract. |
| 4. Liquidation of the net position under the contract occurs without significant negotiation and due diligence and occurs within a time frame that is customary for settlement of the type of contract. | <ul style="list-style-type: none"> ▶ Binding prices for the instrument are readily obtainable. ▶ Transfers of the instrument involve standardized documentation (rather than contracts with entity-specific modifications) and standardized settlement procedures. ▶ Individual contract sales do not require significant negotiation and unique structuring. ▶ The closing period is not extensive because of the need to permit legal consultation and document review. |

The best example of a market mechanism is a futures exchange because it clearly satisfies all four primary characteristics. The actual terms of a futures contract require one party to buy or sell a stated volume of a commodity at a certain price from or to the exchange. The commodity exchange creates a market or clearinghouse for potential counterparties in the contracts. At any time during the life of a futures contract, a party can go to the exchange, close out the position by transferring it to another party and be relieved of its rights and obligations under the contract by either paying or receiving the net change in the fair market value of the contract. Transaction costs are minimal, and settlement requires no negotiation or due diligence. After the position is closed, the party to the contract is in the same position as if the contract had been net settled.

What about a scenario whereby a traditional futures exchange is not present, but the existence of numerous brokers for a particular commodity seems to provide an ad hoc market mechanism? The fact that brokers may stand ready to relieve entities of their rights and obligations under a certain type of contract may indicate that a market mechanism that facilitates net settlement exists for that type of contract. However, all four primary characteristics have to be met.

The arrangement would not constitute a market mechanism that facilitates net settlement if (1) binding prices are not always available, (2) significant transaction costs have to be incurred to liquidate an entity's net position or (3) the arrangement between the entity and the broker is one under which the broker will deliver or accept delivery on behalf of the entity and does not relieve the entity of its rights and obligations under the contract.

The "market mechanism" test focuses on a *single* contract rather than the group of contracts in which an entity has a position.⁸ The lack of a liquid market for a *group* of contracts does not affect the determination of whether there is a market mechanism that facilitates net settlement.

Effect of a contractual provision on a market mechanism. Some commodity contracts contain a provision that allows one or both parties to the contract to assign its rights and obligations to a third party only after obtaining permission from the counterparty to the transaction. The primary purpose of such an assignment clause is to make sure the non-assigning counterparty is not unduly exposed to credit or performance risk if the assigning counterparty is relieved of all of its rights and obligations under the contract. Accordingly, a counterparty could withhold consent only in limited circumstances, such as when the contract would be assigned to a third-party assignee that has a history of defaulting on its obligations or has a lower credit rating than the assignor.

As discussed above, for many commodity contracts, there may be a market mechanism that will facilitate net settlement because of the existence of commodity brokers willing to assume the rights and obligations under the contract. Therefore, in commodity contracts with assignment clauses for which there is a market mechanism to facilitate net settlement, an assessment of the substance of the assignment clause is required to determine whether the clause precludes a party from being relieved of all rights and obligations under the contract through that existing market mechanism. Accordingly, the existence of an assignment clause does not, in and of itself, preclude the contract from possessing the net settlement characteristic described in ASC 815 as a market mechanism.

ASC 815-10-15-117 states that if the likelihood is *remote* that the counterparty would withhold permission to assign the contract, the mere existence of the "required permission" clause does not preclude the assignable contract from meeting the market mechanism net settlement characteristic. Such a determination requires assessing whether a sufficient number of acceptable potential assignees exist in the marketplace such that the assignment of the contract would not result in imposing unacceptable credit risk or performance risk on the non-assigning party.

⁸ See ASC 815-10-15-111(c).

Consideration should be given to past counterparty and industry practices of withholding permission to be relieved of all rights and obligations under similar contracts. However, if it is *reasonably possible* or *probable* that the counterparty will withhold permission to assign the contract, the contract would not be considered to be net settleable through a market mechanism, and therefore, the contract may not be subject to ASC 815.

2.4.4.3

Readily convertible to cash

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Net Settlement by Delivery of Derivative Instrument or Asset Readily Convertible to Cash

815-10-15-119

In this form of net settlement, one of the parties is required to deliver an asset of the type described in paragraph 815-10-15-100, but that asset is readily convertible to cash or is itself a derivative instrument.

815-10-15-122

An asset (whether financial or nonfinancial) shall be considered to be readily convertible to cash only if the net amount of cash that would be received from a sale of the asset in an active market is either equal to or not significantly less than the amount an entity would typically have received under a net settlement provision. The net amount that would be received upon sale need not be equal to the amount typically received under a net settlement provision. Parties generally should be indifferent as to whether they exchange cash or the assets associated with the underlying, although the term *indifferent* is not intended to imply an approximate equivalence between net settlement and proceeds from sale in an active market.

A contract is also deemed net settleable if it requires the delivery of an asset that is readily convertible to cash or is itself a derivative instrument.

To be readily convertible to cash, the asset needs to have interchangeable (fungible) units and quoted prices available in an active market that can rapidly absorb the quantity held by the entity without significantly affecting the price.⁹ Thus, the asset has to be actively traded.

The FASB believes that derivatives by their very nature are convertible to cash, so if a contract calls for the delivery of another derivative, it is inherently readily convertible into cash. The evaluation of whether an asset is readily convertible to cash is performed at the inception of a contract and on an ongoing basis throughout the contract's life.¹⁰

⁹ For contracts that involve multiple deliveries of the asset, the phrase "in an active market that can rapidly absorb the quantity held by the entity" should be applied separately to the expected quantity in each delivery.

¹⁰ See ASC 815-10-15-3, 25-2 and 25-3, 30-3, 45-8, 55-84 and 55-86 through 55-89, and 815-20-55-44A through 55-44C. For example, the occurrence of an IPO or increases in the daily trading volume of an asset could cause the initial assessment of an asset as not "readily convertible to cash" to be rejected. If this occurs, the contract that is newly considered a derivative must be recorded at fair value, with the offsetting entry to earnings. The contract is eligible to be designated as a hedging instrument once it is accounted for as a derivative.

How we see it

Practitioners have struggled with the phrases “readily convertible to cash” and “rapidly absorb the quantity held” when determining the time horizon the terms “readily” and “rapidly” are intended to imply. The FASB has avoided providing explicit guidance in this area, except in the case of stock purchase warrants, which are discussed in the next section. For all other assets, practitioners need to evaluate these descriptive phrases rather than counting a specific number of days to determine whether the specific asset referenced in the contract is “*readily* convertible to cash.”

However, the example in ASC 815-10-55-111 through 55-117 provides some insight into the FASB’s intent, noting that the phrase “rapidly absorb” indicates that absorption should occur “within a few days”, which is significantly shorter than the 31-day rule imposed for stock purchase warrants discussed in the next section.

While the FASB and the SEC have never commented publicly on this, most practitioners seem to view the “within a few days” guidance as implying a range of three to seven days.

The best example of a derivative with this form of net settlement is a forward contract in an exchange-traded commodity. For instance, a forward contract entered into by a manufacturer to buy natural gas could be a derivative, because natural gas is actively traded. In contrast, a contract to buy a specific piece of equipment would not be a derivative because of the unique nature of the equipment. Whether the natural gas contract is subject to the requirements of ASC 815 will depend on whether it qualifies for the normal purchases and normal sales (NPNS) scope exception, discussed in section 2.5.2 below.

Other examples of derivatives requiring the delivery of an asset that is readily convertible to cash include:

- ▶ *A forward purchase contract for wheat.* The actual terms of the contract require a fixed quantity of wheat to be delivered and for the recipient to pay a fixed price per bushel. However, because wheat is an asset that is readily convertible to cash, the recipient of the wheat can immediately sell the wheat for cash and is left with the net difference between the purchase price called for in the contract and the sales price of the wheat. As such, the recipient is in the same position as if the contract had called for net settlement.
- ▶ *A contract for the purchase of a US Treasury security, which can be readily converted to cash.* This contract would be considered a derivative even though the only means of settlement is by delivery of the security. Upon receipt, the US Treasury security can be immediately sold and, therefore, in substance, the transaction is settled net. (The contract may qualify for the “regular-way security trades” exemption, discussed in section 2.5.1 below.)
- ▶ *A foreign currency forward contract for a highly liquid currency.* Since highly liquid currencies can be easily converted into functional currency cash, the contract would be considered a derivative, even if it is required to be settled by delivery of the highly liquid currency. On the other hand, a foreign currency forward contract that requires the delivery of a large amount of an illiquid currency would not be considered a derivative under ASC 815. Delivery of a foreign currency is not delivery of “cash” unless that currency can be readily converted to the functional currency of the reporting entity.
- ▶ *Stock purchase warrants.* Whether stock purchase warrants constitute derivatives often depends on whether the underlying common stock is readily convertible to cash.

It is common for certain startup companies to enter into business arrangements with investors or more established entities by offering warrants in their own stock, rather than cash, as consideration for various arrangements. Accordingly, the investor often finds itself to be the owner of a stock purchase warrant that unexpectedly becomes a derivative when the company completes its initial public stock offering. If the warrant requires the issuer to deliver shares of its stock to its holder, and those shares are readily

convertible to cash (i.e., they have quoted prices available in an active market that can rapidly absorb the quantity held by the entity without significantly affecting the price), the warrant would have the net settlement characteristic of a derivative.

Even if the stock purchase warrant carries restrictions that prohibit the holder from exercising it for several years and, therefore, is not itself marketable, the warrant would still be considered a derivative because the asset to be eventually delivered (i.e., the common stock) is readily convertible to cash.

On the other hand, as long as the underlying stock to which the warrant relates is not readily convertible to cash, perhaps because the stock is still closely held, and the company has not yet had an initial public offering, the warrant would not have a net settlement characteristic and would not be a derivative under ASC 815. However, in this case, the guidance in ASC 815 related to certain contracts on debt and equity securities discussed in section 2.4.5 may apply to the warrant that an entity receives.

Another reason the underlying stock to which a stock purchase warrant relates might not be considered readily convertible to cash is if the issuer of the stock has imposed significant restrictions on the sale or transfer of the newly outstanding shares once the warrant has been exercised. Under the guidance in ASC 815-10-15-130 through 15-138, any issuer-imposed sale or transfer restriction on the underlying stock exceeding 31 days constitutes a restriction significant enough for the stock to be deemed not readily convertible to cash. Therefore, stock purchase warrants that are exercisable into shares that carry this restriction are not considered derivatives.¹¹ (A restriction only on the ability to pledge the shares as collateral without restricting their sale is not considered a restriction that causes the stock to be deemed not readily convertible to cash.)

If the shares of an actively traded common stock to be received upon exercise of the stock purchase warrant can be reasonably expected to qualify for sale within 31 days of their receipt (as may be the case under Rule 144 or other similar SEC rules), such shares, absent any greater issuer-imposed restriction, would be considered readily convertible to cash.

Some warrants also contain a feature commonly known as a “cashless exercise.” This feature permits the holder to exchange its warrant for an appropriate number of shares equal to the intrinsic value of the warrant, such that the warrant holder does not have to use its own cash to purchase shares at the warrant “strike” price.

For example, a warrant permitting its holder to purchase 1,000 shares of LMN Company for \$1 per share is exercised at a date when the market price is \$5 per share. In a “cashless exercise,” the holder would exchange its warrant for 800 shares of LMN [$1,000 \text{ shares} \times (\$5 - \$1) / \5]. In a regular exercise, the holder would pay \$1,000 of its cash to purchase 1,000 shares of LMN. A warrant that permits a cashless exercise is considered a “contractual net settlement” and satisfies the net settlement part of the derivative definition, regardless of whether the underlying stock is readily convertible to cash.¹²

How we see it

Entities entering into business arrangements that involve the payment of stock purchase warrants as part of the consideration should carefully evaluate these provisions. Entities offering warrants may want to consider including a greater-than-31-day trading restriction on the underlying shares and *not* include a “cashless exercise” provision. Although they have a lesser value, stock purchase warrants structured in this manner would not be considered derivatives under ASC 815.

¹¹ ASC 815 states that the guidance indicating that shares restricted for more than 31 days are not considered readily convertible to cash applies only to shares received upon the exercise of stock purchase warrants issued by an entity for its own shares and should not be analogized to any other types of contracts. Therefore, this guidance does not apply to restrictions of more than 31 days on the sale or transfer of shares received upon the settlement of a forward contract.

¹² See ASC 815-10-15-102 and 55-90.

Conditions that could affect the assessment of “readily convertible to cash.” Sometimes the net amount of cash that would be received from a sale of an asset in an active market may be affected by various factors, such as sales commissions and costs to transport the asset (such as a commodity) to the delivery location specified for that active market. Under the guidance in ASC 815-10-15-122 and 15-125 through 15-127, if such conversion costs are deemed “significant” at the inception of the contract (subsequent reassessments are not to be performed), the asset should not be considered “readily convertible to cash.”

ASC 815-10-15-126 defines costs as “significant” if they are 10% or more of the gross sales proceeds (based on the spot price at the inception of the contract) that would be received from the sale of those assets in the closest or most economical active market.

Some contracts call for the delivery of multiple units of an asset. In this case, the asset is assessed to determine whether it is “readily convertible to cash” based on the smallest number of units into which the contract permits the asset to be delivered.¹³

For example, consider a convertible bond with a face amount of \$100 million that is convertible into 10 million shares of common stock. When the bond is converted, it is required to be converted in full. Market conditions for the stock are such that only 500,000 shares can be sold rapidly without the share price being significantly affected. Therefore, this feature of the convertible bond would not be deemed net settleable because the smallest number of units into which the bond can be converted is not readily convertible to cash.

However, if the convertible bond provisions permitted the holder to convert in increments of \$1,000, the holder would receive only 100 shares of common stock, which are easily sold rapidly without altering the market price. This periodically convertible bond would be deemed to contain an embedded derivative that should be accounted for under ASC 815 by the holder (see chapter 3 for a more detailed discussion of embedded derivatives).

2.4.5

Certain contracts on debt and equity securities

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Contracts on Debt and Equity Securities

815-10-15-141

The guidance in the Certain Contracts on Debt and Equity Securities Subsections applies only to those forward contracts and purchased options having all of the following characteristics:

- a. The contract is entered into to purchase securities that will be accounted for under either Topic 320 or Topic 321.
- b. The contract’s terms require physical settlement of the contract by delivery of the securities.
- c. The contract is not a **derivative instrument** otherwise subject to this Subtopic.
- d. The contract, if a purchased option, has no intrinsic value at acquisition.

¹³ See ASC 815-10-15-123 and ASC 815-10-55-99 through 55-110 and ASC 815-10-55-111 through 55-117.

815-10-15-141A

For the purposes of applying paragraph 815-10-15-141(a) for forward contracts and purchased options, an entity shall not consider whether, upon the settlement of the forward contract or the exercise of the purchased option, individually or with existing investments, the underlying securities would be accounted for under either of the following:

- a. The equity method in accordance with Topic 323
- b. The fair value option in accordance with Topic 825 if those securities otherwise would have been accounted for under Topic 323.

815-10-15-142

The guidance in the Certain Contracts on Debt and Equity Securities Subsections does not apply to contracts involving securities not within the scope of either Topic 320 or Topic 321, after considering the guidance in paragraph 815-10-15-141A.

Excerpt from Accounting Standards Codification**Derivatives and Hedging – Overall*****Recognition******Certain Contracts on Debt and Equity Securities*****815-10-25-17**

Forward contracts and purchased options on debt securities within the scope of this Subsection (see the Certain Contracts on Debt and Equity Securities Subsection of Section 815-10-15) shall, at inception, be designated as held to maturity, available for sale, or **trading** in a manner consistent with the accounting prescribed by Topic 320 for debt securities. Such forward and option contracts are not eligible to be hedging instruments.

815-10-25-18

Forward contracts and purchased options on equity securities within the scope of this Subsection (see the Certain Contracts on Debt and Equity Securities Subsection of Section 815-10-15) shall, at inception, be recognized in a manner consistent with the accounting prescribed by Topic 321 for equity securities. Such forward and option contracts are not eligible to be hedging instruments.

Derivatives and Hedging – Overall***Initial Measurement******Certain Contracts on Debt and Equity Securities*****815-10-30-5**

Forward contracts and purchased options on debt securities within the scope of this Subsection designated as held to maturity, available for sale, or **trading** shall be measured initially in a manner consistent with the accounting prescribed by Topic 320 for that category of securities.

815-10-30-6

Forward contracts and purchased options on equity securities within the scope of this Subsection shall be measured initially in a manner consistent with the accounting prescribed by Topic 321.

Derivatives and Hedging – Overall

Subsequent Measurement

Certain Contracts on Debt and Equity Securities

815-10-35-5

Forward contracts and purchased options on debt securities within the scope of this Subsection shall be measured subsequently according to their initial classification as follows:

- a. Held to maturity:
 1. Changes in the **fair value** of the forward contract or purchased option shall not be recognized unless a decline in the fair value of the underlying securities is other than temporary, in which case a loss shall be recognized in earnings.
 2. Debt securities purchased under a forward contract shall be recorded at the forward contract price at the settlement date.
 3. Debt securities purchased by exercising an option shall be recorded at the option strike price plus any remaining carrying amount for the option premium at the exercise date.
 4. If an option expires worthless and the same debt security is purchased in the market, the security shall be recorded at its market price plus any remaining carrying amount for the option premium.
 5. If an entity does not take delivery under the forward contract or purchase the same security in the market if the option expires worthless, the entity's intent to hold other debt securities to maturity will be called into question.
- b. Available for sale:
 1. Changes in the fair value of the forward contract or purchased option shall be recognized as part of the separate component of shareholders' equity under Topic 320 as they occur unless a decline in the fair value of the underlying securities is other than temporary.
 2. Debt securities purchased under a forward contract shall be recorded at their fair values at the settlement date.
 3. Debt securities purchased by exercising an option shall be recorded at the option strike price plus the fair value of the option at the exercise date.
 4. If the option expires worthless and the same debt security is purchased in the market, the security shall be recorded at its market price plus any remaining carrying amount for the option premium.
- c. Trading:
 1. Changes in the fair value of the forward contract or purchased option shall be recognized in earnings as they occur.
 2. Debt securities purchased under a forward contract or by exercising an option shall be recorded at their fair values at the settlement date.

815-10-35-6

Changes in the fair value of forward contracts and purchased options on equity securities within the scope of this Subsection shall be recognized in earnings as they occur. Changes in observable price or impairment of forward contracts and purchased options on equity securities without readily determinable fair value within the scope of this Subsection measured in accordance with paragraph 321-10-35-2

shall be recognized in earnings as they occur. A change in observable price or impairment of the underlying securities of forward contracts and purchased options on equity securities shall result in a remeasurement of the entire fair value of the forward contracts and purchased options as of the date that the observable transaction took place. Equity securities within the scope of this Subsection purchased under a forward contract or by exercising an option shall be recorded at their fair values at the settlement date.

Pending Content:

Transition Date: (P) December 16, 2019; (N) December 16, 2022 | **Transition Guidance:** 326-10-65-1

815-10-35-5

Forward contracts and purchased options on debt securities within the scope of this Subsection shall be measured subsequently according to their initial classification as follows:

- a. Held to maturity:
 1. Changes in the **fair value** of the forward contract or purchased option shall not be recognized. Credit losses on the underlying securities in a forward contract shall be recorded through an allowance for credit losses in accordance with Subtopic 326-20 on financial instruments measured at amortized cost. Credit losses on the underlying securities in a purchased option shall be recorded through an allowance for credit losses in accordance with Subtopic 326-20 and shall be limited by the amount of the option premium.
 2. Debt securities purchased under a forward contract shall be recorded at the forward contract price at the settlement date.
 3. Debt securities purchased by exercising an option shall be recorded at the option strike price plus any remaining carrying amount for the option premium at the exercise date.
 4. If an option expires worthless and the same debt security is purchased in the market, the security shall be recorded at its market price plus any remaining carrying amount for the option premium.
 5. If an entity does not take delivery under the forward contract or purchase the same security in the market if the option expires worthless, the entity's intent to hold other debt securities to maturity will be called into question.
- b. Available for sale:
 1. Changes in the fair value of the forward contract or purchased option shall be recognized as part of the separate component of shareholders' equity under Topic 320 as they occur. Credit losses on the underlying securities in a forward contract shall be recorded through an allowance for credit losses in accordance with Subtopic 326-30 on measuring credit losses on available-for-sale debt securities. Credit losses on the underlying securities in a purchased option shall be recorded through an allowance for credit losses in accordance with Subtopic 326-30 and shall be limited by the amount of the option premium.
 2. Debt securities purchased under a forward contract shall be recorded at their fair values at the settlement date.
 3. Debt securities purchased by exercising an option shall be recorded at the option strike price plus the fair value of the option at the exercise date.
 4. If the option expires worthless and the same debt security is purchased in the market, the security shall be recorded at its market price plus any remaining carrying amount for the option premium.

c. Trading:

1. Changes in the fair value of the forward contract or purchased option shall be recognized in earnings as they occur.
2. Debt securities purchased under a forward contract or by exercising an option shall be recorded at their fair values at the settlement date.

As noted earlier, ASC 815 defines derivatives based on their characteristics instead of providing a list of instruments commonly identified as derivatives. As a result, certain purchased option and forward contracts may not be deemed to be derivative instruments under ASC 815 because they do not have all of the required characteristics discussed in sections 2.4.1 through 2.4.4.

For example, a forward contract to purchase a commodity that is not readily convertible to cash (and which does not provide for any other form of net settlement) would not be considered a derivative instrument under ASC 815.

However, ASC 815 provides guidance on how to account for purchased option and forward contracts on debt and equity securities, even when these contracts do not meet the definition of a derivative, if they have all of the following characteristics listed in ASC 815-10-15-141:

- ▶ The contract is entered into to purchase securities that will be accounted for under either ASC 320 or ASC 321.
- ▶ The contract's terms require physical settlement by delivery of the securities.
- ▶ If the contract is a purchased option, it has no intrinsic value at acquisition.

ASC 815 requires these contracts to be accounted for in a manner consistent with the requirements of ASC 320 (when the underlying is a debt security) or ASC 321 (when the underlying is an equity security). Therefore, the accounting for a forward contract to purchase a debt security accounted for under ASC 320 will depend on whether the security, once purchased, will be classified as held to maturity, available for sale or trading. Refer to our FRD, *Certain investments in debt and equity securities*, for additional information on certain purchased option and forward contracts on debt and equity securities.

When an entity is determining whether the first criterion is met for a contract on an equity security, the entity should not consider whether the underlying equity securities would be accounted for under the equity method in ASC 323 or the fair value option in ASC 825 when the forward contract or purchased option is settled. That is, when considering a contract to acquire an ownership interest in an entity at a fixed or determinable price (which is included in the definition of an equity security accounted for under ASC 321), the entity should not conclude that the criterion in ASC 815-10-15-141(a) is not met simply because the entity will ultimately account for the underlying equity security as an equity method investment or under the fair value option.

2.5

Instruments that are not subject to ASC 815

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Instruments Not within Scope

815-10-15-13

Notwithstanding the conditions in paragraphs 815-10-15-83 through 15-139, the following contracts are not subject to the requirements of this Subtopic if specified criteria are met:

- a. Regular-way security trades

- b. Normal purchases and normal sales
- c. Certain insurance contracts
- d. Certain financial guarantee contracts
- e. Certain contracts that are not traded on an exchange
- f. Derivative instruments that impede sales accounting
- g. Investments in life insurance
- h. Certain investment contracts
- i. Certain loan commitments
- j. Certain interest-only strips and principal-only strips
- k. Certain contracts involving an entity's own equity
- l. Leases
- m. Residual value guarantees
- n. **Registration payment arrangements**
- o. Certain fixed-odds wagering contracts

Pending Content:

Transition Date: (P) December 16, 2022; (N) December 16, 2024 | **Transition Guidance:** 944-40-65-2

815-10-15-13

Notwithstanding the conditions in paragraphs 815-10-15-83 through 15-139, the following contracts are not subject to the requirements of this Subtopic if specified criteria are met:

- a. Regular-way security trades
- b. Normal purchases and normal sales
- c. Certain insurance contracts and **market risk benefits**
- d. Certain financial guarantee contracts
- e. Certain contracts that are not traded on an exchange
- f. Derivative instruments that impede sales accounting
- g. Investments in life insurance
- h. Certain investment contracts
- i. Certain loan commitments
- j. Certain interest-only strips and principal-only strips
- k. Certain contracts involving an entity's own equity
- l. Leases
- m. Residual value guarantees
- n. **Registration payment arrangements**
- o. Certain fixed-odds wagering contracts.

The FASB decided that certain types of contracts, even though they have all the characteristics of a derivative, should be excluded from the scope of ASC 815. However, these exclusions need to be considered carefully to make sure they apply. Further, some exclusions apply only to the issuer of the contract, not both parties. In that case, the other party will have to follow ASC 815 for the contract, unless it qualifies for one of the other exclusions.

A contract that is excluded from the scope of ASC 815 cannot be designated as a hedging instrument in any of the three types of hedge accounting relationships. However, such a contract would be eligible to be a hedged item in a hedging relationship.

The items that are specifically excluded from the scope of ASC 815, generally for *both parties* to the contract, include:

- ▶ “Regular-way” security trades
- ▶ Normal purchases and normal sales (NPNS) contracts¹⁴ that provide for the purchase or sale of nonfinancial instruments in quantities expected to be used or sold over a reasonable period in the normal course of business
- ▶ Certain insurance contracts¹⁵ that compensate the holder only as a result of an identifiable insurable event (generally, traditional life insurance and property and casualty contracts)
- ▶ Certain financial guarantee contracts that among other stringent criteria provide for payments to be made solely to reimburse the guaranteed party for failure of the debtor to satisfy its required payment obligations under a nonderivative contract
- ▶ Non-exchange-traded contracts with underlyings based on the following:
 - ▶ Climatic, geological or other physical variables (e.g., heating degree days, level of snowfall, seismic readings)
 - ▶ The price or value of a nonfinancial asset or liability of one of the parties that is not readily convertible to cash or does not require delivery of an asset that is readily convertible to cash (e.g., an option to purchase or sell real estate that one of the parties owns, a firm commitment to purchase or sell unique machinery)
 - ▶ Specified volumes of sales or service revenues of one of the parties (e.g., royalty agreements)
- ▶ Derivatives that serve as impediments to sales accounting (e.g., a call option that enables a transferor of financial instruments to repurchase the transferred assets and prevents sales accounting for the transfer)
- ▶ All loan origination commitments for borrowers and certain loan origination commitments for lenders
- ▶ Registration payment arrangements accounted for under ASC 825-20
- ▶ Certain fixed-odds wagering contracts

¹⁴ The NPNS exception is evaluated separately for each party to the contract, and there may be instances where a contract meets this exception for one party and not the other. However, more frequently both parties qualify for the exception.

¹⁵ ASU 2018-12, *Financial Services – Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts*, amends ASC 815 to states that “market risk benefits” in long-duration contracts are exempt from the requirements in ASC 815 and are in the scope of ASC 944. Upon adopting the guidance in ASU 2018-12, entities would first need to consider whether features in long-duration contracts represent market risk benefits before considering the guidance in ASC 815 (including the guidance on embedded derivatives). The ASU is effective for SEC filers, excluding smaller reporting companies, for fiscal years and interim periods therein beginning after 15 December 2022. For all other entities, it is effective for fiscal years beginning after 15 December 2024, and interim periods within fiscal years beginning after 15 December 2025. However, early adoption is permitted.

The following items are narrow practical exceptions that affect products of insurers. They are excluded from the definition of a derivative for one of the parties but not for the other:

- ▶ Certain investment contracts held by benefit plans that are not subject to ASC 815 for the party that accounts for the contract under ASC 960 or ASC 960-325-35-1 and 35-3
- ▶ Investments in a life insurance contract by a policyholder that is accounted for under ASC 325-30, although the issuer of these life insurance contracts remains subject to ASC 815

The following contracts involving an entity's own equity are excluded from the definition of a derivative for the issuer but not for the recipient:

- ▶ Contracts indexed to the entity's own stock and classified in stockholders' equity (e.g., rights, warrants, options), although these contracts may be derivatives to the counterparty whose stock is not the underlying to the contract
- ▶ Stock-based compensation addressed by ASC 718, although these contracts could be derivatives to the recipient
- ▶ Contracts between an acquirer and a seller to enter into a business combination at a future date
- ▶ Physically settled forward contracts on a fixed number of an entity's own shares

Each of these exclusions is discussed further below.

2.5.1 Regular-way security trades

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Regular-Way Security Trades

815-10-15-15

Regular-way security trades are defined as contracts that provide for delivery of a security within the period of time (after the trade date) generally established by regulations or conventions in the marketplace or exchange in which the transaction is being executed. For example, a contract to purchase or sell a publicly traded equity security in the United States customarily requires settlement within three business days. If a contract for purchase of that type of security requires settlement in three business days, the regular-way security trades scope exception applies, but if the contract requires settlement in five days, the regular-way security trades scope exception does not apply unless the reporting entity is required to account for the contract on a trade-date basis.

2.5.1.1 Existing securities

The FASB did not intend for the typical everyday purchase and sale of marketable securities to meet the definition of a derivative on the date of the trade. Often, these agreements will have all three characteristics of a derivative between the trade date and settlement date of the contract. However, contracts that provide for the delivery of a security within the time generally established by regulations or conventions in the marketplace or exchange in which the transaction is being executed are not subject to the requirements of ASC 815. The key to determining whether a contract qualifies for this exception is an understanding of the customary settlement period for trades of that security, as indicated by regulations or marketplace conventions.

In the US, most equity security trades now settle in two business days (the previous practice had been three days).¹⁶ If a contract calls for the delivery of a stock of a publicly traded company in more than two business days, it would not qualify for the exception. While the wording in ASC 815-10-15-15 was not updated for the change to a two-day settlement from a three-day settlement, the guidance is clear that a contract with a settlement period longer than what is generally established by regulations and convention would not qualify for the regular-way security trade exception.

The regular-way security trades exception does not apply to contracts whose terms require or permit net settlement or where a market mechanism exists to facilitate net settlement of that contract, with the following exception: ASC 815 states that if an entity is required,¹⁷ or has a continuing accounting policy, to account for a contract to purchase or sell an existing security on a *trade-date* basis, rather than a settlement-date basis, and thus recognizes the acquisition (or disposition) of the security at the inception of the contract, the entity should apply the regular-way security trade exception, even if the contract requires or permits net settlement or if a market mechanism to facilitate net settlement exists.

How we see it

An entity that follows trade-date accounting for its security purchases records its ownership of the security immediately. Accordingly, we believe it is impossible to simultaneously account for a derivative instrument when an entity has already recorded an initial net investment commensurate with (in fact, equal to) the amount exchanged to acquire the asset related to the underlying. Our view is that a derivative can exist only definitionally for an entity that follows settlement date accounting. In this case, the derivative exists between the trade date and the settlement date; that is, prior to the recording of an initial net investment.

2.5.1.2

'When-issued' or 'to-be-announced' securities or other securities that do not yet exist

Certain securities, typically mortgage-backed securities, are purchased on a "when-issued" basis. In these cases, the security does not exist at the time a contract for its purchase is entered into. Rather, delivery under the purchase contract will occur at some later date when the security is issued.

ASC 815 addresses the circumstances in which a contract to purchase a when-issued security is eligible to be excluded from the scope of ASC 815 as a regular-way security trade. Forward purchases or sales of when-issued securities or other securities that do not yet exist are excluded from the scope of ASC 815 as a regular-way security trade, if all three of the following criteria are met:

- ▶ There is no other way to purchase or sell that security.
- ▶ Delivery of that security and settlement will occur within the shortest period possible for that type of security. ASC 815-10-55-118 through 55-120 further clarifies that the exception is available only when the contract requires delivery within the shortest period possible. It specifically indicates that for a purchase contract that provides for multiple delivery periods for to-be-announced (TBA) securities, only the securities that settle in the shortest period permitted would meet this criterion. For example, if a forward contract for TBA securities (whose standard settlement date is 30 days) provided for delivery over each of the next three months, only the securities that require delivery in the first month would qualify for the regular-way exception.

¹⁶ The amended Rule 15c6-1(a) generally prohibits a broker-dealer from effecting or entering into a contract for the purchase or sale of a security that provides for payment of funds and delivery of securities later than two business days after the trade date (known as T+2), unless otherwise expressly agreed to by the parties at the time of the transaction. Broker-dealers were required to comply with the amended rule starting on 5 September 2017. The FASB did not update ASC 815-10-15-15 for this change.

¹⁷ Under US GAAP, certain entities are required to use the trade-date basis of accounting for securities that meet the definition of regular-way. Entities subject to such a requirement may include investment companies (ASC 946-320-25-1), brokers and dealers (ASC 940-320-25-1), depository and lending institutions (ASC 942-325-25-2), defined benefit pension plans (ASC 960-325-25-1), defined contribution pension plans (ASC 962-325-25-1) and health and welfare benefit plans (ASC 965-320-25-1).

- It is probable at inception and throughout the term of the individual contract that the contract will not settle net and will result in the physical delivery of a security when it is issued. An entity has to document its basis for concluding that it is probable that the contract will not settle net and will result in physical delivery. Subsequent net settlement of a contract so documented would call into question the continued regular-way exemption of similar contracts.

The expansion of the regular-way security trades exception to when-issued securities and other securities that do not yet exist benefits purchases of mortgage-backed securities under forward contracts for when-issued securities. Even though a market mechanism for net settlement of these instruments exists, the scope exception applies, as long as physical delivery is probable.

Entities that are required or have a continuing policy to account for the purchase and sale of when-issued securities and other securities that do not yet exist on a trade-date basis rather than a settlement date basis should apply the regular-way security trades exception because the acquisition or disposition of such securities is recognized immediately at the inception of the contract.¹⁸

2.5.2

'Normal' purchases and 'normal' sales

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Normal Purchases and Normal Sales

815-10-15-22

Normal purchases and normal sales are contracts that provide for the purchase or sale of something other than a **financial instrument** or derivative instrument that will be delivered in quantities expected to be used or sold by the reporting entity over a reasonable period in the normal course of business.

815-10-15-23

The assessment of whether a contract qualifies for the normal purchases and normal sales scope exception (including whether the **underlying** of a price adjustment within the contract is not clearly and closely related to the asset being sold or purchased) shall be performed only at the inception of the contract.

815-10-15-24

The normal purchases and normal sales scope exception sometimes will result in different parties to a contract reaching different conclusions about whether the contract is required to be accounted for as a derivative instrument. For example, the contract may be for ordinary sales by one party but not for ordinary purchases by the counterparty.

Contracts that provide for the purchase or sale of nonfinancial items in quantities expected to be used or sold by the entity over a reasonable period in the normal course of business are not subject to ASC 815. As a result, the typical purchase and sale of commodities, inventories and supplies, whether otherwise satisfying the definition of a derivative, do not need to be accounted for as derivative instruments, as long as such activity constitutes *normal purchases or normal sales* as defined in ASC 815. The guidance in ASC 815 provides criteria that must be met for purchases and sales contracts to qualify for this scope exception. In addition, as discussed in section 2.5.2.7, the guidance provides separate criteria that apply only to power purchases and sales agreements.¹⁹

¹⁸ Some entities that are required to account for their securities transactions on a trade-date basis have a policy to apply ASC 815 derivative accounting to their physically settled "when-issued" security transactions that do not meet the definition of regular-way trades.

¹⁹ Power purchases and sales contracts qualify for the application of the scope exception if they meet either the general criteria for the NPNS scope exception or the criteria specific only to power contracts.

Many contracts for the purchase or sale of commodities that are to be used by an entity in its operations will satisfy the criteria to be considered normal purchases and sales that are exempt from the provisions of ASC 815. Sales contracts that qualify for this exception are accounted for under ASC 606, if the entity elects to apply the NPNS scope exception. Refer to our FRD, *Revenue from contracts with customers (ASC 606)*, for further discussion.

However, any derivative contracts that do not satisfy the criteria for this exception, or for which the entity has not elected to apply the exception, are accounted for under ASC 815 at fair value and, therefore, will be outside the scope of the revenue guidance. In these instances, entities may want to consider whether the derivative contracts would be eligible for designation as the hedging instrument in a hedging relationship (including an “all-in-one” hedge as discussed in section 6.2.1), thereby mitigating the volatility in earnings from their changes in fair value.

How we see it

In accordance with ASC 606, entities are required to present, on the face of the financial statements or in the notes to the financial statements, revenue from contracts with customers separately from other sources of revenue.

For example, entities need to separately disclose the revenues and related receivables from commodity sales contracts accounted for under ASC 606 from those contracts accounted for as derivatives under ASC 815. In the event that an entity predominantly sells its goods through contracts that meet the definition of a derivative and the NPNS scope exception has not been elected or could not be applied, the entity may end up disclosing little to no revenue from customers under ASC 606.

Accordingly, even in cases where a nonfinancial derivative instrument has minimal value (e.g., when the terms of a contract are variable such that sales under the contract would be executed at market prices), entities need to document their election of the NPNS scope exception so they can present revenue from these contracts as revenue from customers. Refer to section 2.5.2.3 for additional discussion of the documentation requirements.

The NPNS scope exception may be elected for a qualifying derivative contract any time during the contract’s term. However, if the exception is elected after initial recognition (or at any time when the derivative contract has a carrying amount other than zero), the derivative contract’s fair value will become “frozen” on the balance sheet. That is because the contract would no longer be subject to remeasurement at fair value. Entities need to apply judgment when subsequently accounting for this amount because US GAAP does not address when or where this amount should be derecognized. We believe one acceptable approach would be to derecognize the “frozen mark” through earnings as the contract is settled.

For example, assume an entity elects the NPNS scope exception for a forward purchase contract for natural gas at a date subsequent to its initial recognition. On the date the election is made, the derivative contract has a fair value of \$100,000 (i.e., it is a derivative asset to the reporting entity) and has four months remaining until maturity. If all of the natural gas under the contract is to be delivered at the end of the contract’s term, we believe the entire \$100,000 asset could be derecognized to earnings upon delivery at the end of the four-month term. If, instead, the forward purchase contract required delivery of equal quantities on a monthly basis, we believe the asset could be derecognized to earnings each month as the natural gas is delivered. In addition, we believe any frozen asset balance should be evaluated for impairment.

2.5.2.1 What constitutes 'normal'?

The NPNS scope exception is available for forward contracts that provide for the purchase or sale of something other than a financial instrument or derivative instrument in quantities expected to be used or sold over a reasonable period in the normal course of business. ASC 815 provides the following guidance for determining whether a contract is a normal purchase or sale.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Normal Terms (Including Normal Quantity)

815-10-15-27

To qualify for the scope exception, a contract's terms must be consistent with the terms of an entity's normal purchases or normal sales, that is, the quantity purchased or sold must be reasonable in relation to the entity's business needs. Determining whether or not the terms are consistent requires judgment.

815-10-15-28

In making those judgments, an entity should consider all relevant factors, including all of the following:

- a. The quantities provided under the contract and the entity's need for the related assets
- b. The locations to which delivery of the items will be made
- c. The period of time between entering into the contract and delivery
- d. The entity's prior practices with regard to such contracts.

815-10-15-29

Further, each of the following types of evidence should help in identifying contracts that qualify as normal purchases or normal sales:

- a. Past trends
- b. Expected future demand
- c. Other contracts for delivery of similar items
- d. An entity's and industry's customs for acquiring and storing the related commodities
- e. An entity's operating locations.

For guidance on normal purchases and normal sales as hedged items, see paragraph 815-20-25-7.

For example, a cloth manufacturer may typically acquire cotton for use over a one-year time horizon. The cotton is contracted for at the beginning of the growing season, delivered at harvest and stored by the manufacturer for use over the next nine months. Although cotton is a commodity that is readily convertible to cash, the contract for its purchase would be considered normal if it were for quantities appropriate for the manufacturer's use over one year, and if the contract called for delivery shortly after the end of the harvest.

However, if the same manufacturer entered into a contract for quantities that exceeded what was needed for its use, the contract could be viewed as abnormal for the manufacturer and would be considered a derivative.

How we see it

Significant judgment is needed to determine what is considered normal in a given business. Different evaluations by the two counterparties may cause each party to follow different accounting. That is, a contract may constitute a normal purchase for the buyer but not a normal sale for the seller.

2.5.2.2

Must not settle net and will result in physical delivery (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Probable Physical Settlement

815-10-15-35

For a contract that meets the net settlement provisions of paragraphs 815-10-15-100 through 15-109 and the market mechanism provisions of paragraphs 815-10-15-110 through 15-118 to qualify for the normal purchases and normal sales scope exception, it must be probable at inception and throughout the term of the individual contract that the contract will not settle net and will result in physical delivery.

815-10-15-36

The normal purchases and normal sales scope exception only relates to a contract that results in gross delivery of the commodity under that contract. The normal purchases and normal sales scope exception shall not be applied to a contract that requires cash settlements of gains or losses or otherwise settle gains or losses periodically because those settlements are net settlements. Paragraph 815-20-25-22 explains how an entity may designate such a contract as a hedged item in an **all-in-one hedge** if all related criteria are met.

815-10-15-36A

Certain contracts for the purchase or sale of electricity on a forward basis that necessitate transmission through, or delivery to a location within, an electricity grid operated by an independent system operator result in one of the contracting parties incurring charges (or credits) for the transmission of that electricity based in part on locational marginal pricing differences payable to (or receivable from) the independent system operator. For example, this is the case when the delivery location under the contract (for example, a hub location) is not the same location as the point of ultimate consumption of the electricity or the point from which the electricity exits the electricity grid for transmission to a customer load zone. Delivery to the point of ultimate consumption or the exit point is facilitated by the independent system operator of the grid. The purchase or sale contract and the transmission services do not constitute a series of sequential contracts intended to accomplish the ultimate acquisition or sale of a commodity as discussed in paragraph 815-10-15-41, and the use of locational marginal pricing to determine the transmission charge (or credit) does not constitute net settlement, even in situations in which legal title to the associated electricity is conveyed to the independent system operator during transmission.

The NPNS scope exception is available for all types of forward contracts, even if they permit contractual net settlement or net settlement by a market mechanism. However, entities can only apply the exception if it is probable at inception and throughout the term of the original contract that the contract will not settle net and will result in physical delivery. Accordingly, contracts that *require* cash settlements of gains or losses or are otherwise likely to be settled net, such as exchange-traded futures contracts, are not eligible for the exception.

The requirement that it is probable for an individual contract to result in physical delivery means that individual contracts that are part of a series of sequential contracts intended to accomplish the acquisition or sale of a commodity may not qualify for this exception if any of the contract deliveries in the series of contracts are net settled.

How we see it

Energy companies may face challenges when evaluating how to apply the NPNS scope exception because it may be difficult to document with certainty that any individual commodity contract will physically settle.

For example, while it is generally the intention of both parties to ultimately sell or physically purchase the commodity, these companies often enter into multiple offsetting contracts for the purchase or sale of electricity, natural gas, crude oil, refined products and other hydrocarbons, and they use these positions to continuously manage the price at which the transaction will ultimately be consummated, based on each party's view of whether the terms of a contract continue to be acceptable and attractive. In addition, the offsetting mechanisms are also used to simplify scheduling of delivery, to control operational constraints and to mitigate environmental risks of moving the commodity.

However, the NPNS scope exception cannot be used for a series of sequential contracts intended to result in the purchase or sale of a commodity, if these contracts result in a net settlement. Therefore, a company that enters into offsetting positions referenced to a marketing and pricing hub (e.g., Cushing, Oklahoma, for crude oil and Henry Hub, Louisiana for natural gas) cannot use the NPNS scope exception, except perhaps for the final contract in the series that will finalize the physical settlement of the commodity. That is, entities will generally have to measure all of the derivative contracts in the series at fair value, except perhaps the final one.

Additionally, it can be challenging to determine whether contracts that are settled through a process that assigns some or all of the rights of the contract to another entity to facilitate the scheduling of physical delivery of the underlying qualify for the NPNS scope exception. An entity needs to determine whether the process represents physical delivery of the commodity underlying the contract or a means of net settlement for that contract.

We believe that contracts for quantities expected to be used or sold over a reasonable period in the normal course of business that are subject to this type of process are eligible for the NPNS scope exception if (1) legal title to the commodity is transferred (i.e., "flash title" passes) from the seller to the reporting entity at settlement; (2) the risk of loss, including environmental risk, and the risk of nonperformance are transferred from the seller to the reporting entity; (3) the risk of nonpayment by the reporting entity is retained by the seller after the transfer of title; and (4) gross payments are required under the terms of the contract. When all of the above conditions are met, we believe gross settlement of the contract has occurred even though the physical commodity may not be transferred. Conversely, when these conditions are not met, the contract would be considered to be "net settled" and would be ineligible for the NPNS scope exception.

If the NPNS scope exception is applied to a contract that is ultimately net settled, the eligibility of any other contracts similarly designated as normal may be called into question.

How we see it

Questions exist about the consequence of net settling a contract for which the NPNS scope exception was applied because the guidance is unclear.

ASC 815-10-15-23 states that the assessment of whether a contract qualifies for the NPNS scope exception is performed only at the inception of a contract. ASC 815-10-15-39 goes on to state that the NPNS scope exception could effectively be interpreted as an election, and that once an entity formally documents compliance with the requirements of the exception, at inception of the contract or at a later date, the entity is not permitted to change its election and treat the contract as a derivative. Some constituents interpreted these two pieces of guidance to mean that any "tainting" should apply only to contracts entered into in the future that are similar in nature, not to existing contracts.

However, many constituents applied the “tainting” notion to existing contracts, based on the language in ASC 815-10-15-35 that says it “must be probable at inception *and throughout the term of the individual contract* that the contract will not settle net and will result in physical delivery.” They interpreted this to mean that an existing contract could become no longer probable of not settling net (i.e., physical delivery is no longer probable) and, therefore, would no longer qualify for the NPNS scope exception. This view was applied even though it would potentially enable an entity to intentionally net settle a contract in order to effectively “unelect” the exception and report the changes in fair value of that contract and other similar contracts in earnings, which is inconsistent with the guidance in ASC 815-10-15-39.

Given the lack of clarity in the guidance, the SEC staff has stated that the evaluation of whether a taint has occurred, and whether it applies to future contracts or to other similar existing contracts requires judgment, based on the facts and circumstances.

In addition, the SEC staff has said that a net settlement of a contract for which the NPNS scope exception has been applied forces the entity to evaluate all similarly designated *existing* contracts because something the entity assessed as not being probable of happening has happened. The staff has said that if the entity determines that any similar contract is no longer probable of not net settling, the entity should stop applying the NPNS scope exception and account for the contract as a derivative measured at fair value, with the offsetting adjustment reported in earnings.

When evaluating the existence and extent of a taint, we believe the reason an NPNS contract net settles is an important element to consider. For example, net settlement of a contract due to an aberrant production disruption or unexpected changes in quantity requirements that may occur after a natural disaster carries less taint than a net settlement prompted by a price movement in the underlying. The application of judgment in these matters should be robustly documented and consistently applied.

2.5.2.3

Formal documentation required

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Documentation

815-10-15-37

For contracts that qualify for the normal purchases and normal sales exception under any provision of paragraphs 815-10-15-22 through 15-51, the entity shall document the designation of the contract as a normal purchase or normal sale, including either of the following:

- a. For contracts that qualify for the normal purchases and normal sales exception under paragraph 815-10-15-41 or 815-10-15-42 through 15-44, the entity shall document the basis for concluding that it is probable that the contract will not settle net and will result in physical delivery.
- b. For contracts that qualify for the normal purchases and normal sales exception under paragraphs 815-10-15-45 through 15-51, the entity shall document the basis for concluding that the agreement meets the criteria in that paragraph, including the basis for concluding that the agreement is a **capacity contract**.

815-10-15-38

The documentation requirements can be applied either to groups of similarly designated contracts or to each individual contract. Failure to comply with the documentation requirements precludes application of the normal purchases and normal sales scope exception to contracts that would otherwise qualify for that scope exception.

815-10-15-39

The normal purchases and normal sales scope exception could effectively be interpreted as an election in all cases. However, once an entity documents compliance with the requirements of paragraphs 815-10-15-22 through 15-51, which could be done at the inception of the contract or at a later date, the entity is not permitted at a later date to change its election and treat the contract as a derivative instrument.

The characteristics of a purchase or sale agreement alone do not result in an agreement qualifying for the NPNS scope exception. Qualification also requires documentation of the contract as a normal purchase or normal sale, including the basis for concluding that it is probable that the contract will not settle net and will result in physical delivery. (Note that there are additional documentation requirements for power purchase or sale contracts that are capacity contracts.) Failure to comply with these requirements causes the accounting for the otherwise eligible contract to default to derivative accounting under ASC 815 (i.e., the contract is recorded at fair value on the balance sheet and marked to fair value through earnings, unless hedge accounting is elected and applied).

ASC 815-10-15-39 states that a normal purchase or sale (that an entity intends to physically consummate) may be accounted for as a derivative under ASC 815 simply because the entity *purposefully* fails to document the basis for concluding that the contract will physically settle. ASC 815-10-15-39 confirms that the exception could effectively be interpreted as an election in all cases.

How we see it

Compliance with this documentation requirement does not need to be onerous for entities that always intend for their purchase and sale contracts to be consummated physically. ASC 815 permits a “boilerplate” designation that “all derivative contracts” for the purchase and sale of nonfinancial instruments be designated as normal purchases or normal sales. If the contracts can be contractually net settled or settled by a market mechanism, even if such capabilities are not expected to be taken advantage of, the boilerplate documentation has to include the basis for concluding that the contract will not settle net and will result in physical delivery. Historical patterns of not taking advantage of the net settlement features would provide strong support for claiming the exception.

Some entities might have different operating divisions, one of which always seeks the NPNS scope exception, while another prefers to evaluate use of the exception on a contract-by-contract basis. In this case, a boilerplate designation has to be limited to the one division that seeks to always take the normal election. The other division should document each contract individually.

Entities that want to preserve the flexibility to cancel a purchase contract and enter into the spot market to acquire the commodity needed for its production will not be able to document the probability of physical delivery for contracts and will therefore have to account for the contracts as derivatives at fair value under ASC 815.

In contrast, entities that want to qualify for the normal purchases and sales exception will have to lock themselves into physically consummating all the contracts that have been designated as normal. This accounting decision and related documentation requirement necessitates up-front interaction between the accounting, purchasing, sales and marketing departments. Election of the NPNS scope exception can also have implications on hedge accounting. Refer to section 6.4.2 for additional discussion on hedging contractually specified components in the forecasted purchase or sale of a nonfinancial asset.

All contracts for which the NPNS scope exception is being claimed have to meet all the criteria discussed above, including compliance with the documentation requirements. The guidance is usually sufficient for evaluating whether simple fixed-price, forward-purchase and forward-sale contracts are eligible for the NPNS scope exception. However, eligibility is jeopardized when forward contracts vary from the “plain vanilla” and incorporate less straightforward clauses, such as price adjustment features or quantity adjustment clauses (essentially embedded options).

Furthermore, the NPNS scope exception is rarely available for freestanding option contracts. The next sections discuss the availability of the NPNS scope exception for such contracts.

2.5.2.4 **Forward contracts with price adjustment features**

Certain contracts for the purchase of commodities are based on only *partially fixed* prices that adjust over the contract life based on some market index. Price adjustment features keyed to an underlying that is not “clearly and closely related”²⁰ to the asset being sold or purchased disqualify the contract from eligibility for the NPNS scope exception. For example, a price adjustment feature tied to changes in an equity index that is included in a contract to purchase wheat is not clearly and closely related to wheat. On the other hand, a contract to sell unleaded gasoline with a price formula tied to a crude oil pricing index, such as the New York Mercantile Exchange (NYMEX) WTI (West Texas Intermediate) futures contract, would be considered clearly and closely related to the asset being sold because unleaded gasoline is refined from crude oil.

Evaluating whether the price adjustment feature is clearly and closely related to the asset being sold or purchased should be based on both a qualitative and a quantitative analysis. The analysis is specific to the contract being considered for the NPNS scope exception. The analysis of the contract, including whether the underlying to the pricing adjustment is considered to be clearly and closely related, is performed only at the inception of the contract.

ASC 815-10-15-32 lists three circumstances in which the underlying to a price adjustment feature in a contract would not be considered clearly and closely related to the asset being sold or purchased and, therefore, would render the contract ineligible for the NPNS scope exception:

- ▶ The underlying is extraneous (that is, irrelevant and not pertinent) to both the changes in the cost and the changes in the fair value of the asset being sold or purchased, including being extraneous to an ingredient or direct factor in the customary or specific production of that asset.
- ▶ If the underlying is not extraneous as discussed in the previous bullet, the magnitude and direction of the impact of the price adjustment are not consistent with the relevancy of the underlying. That is, the magnitude of the price adjustment based on the underlying is significantly disproportionate to the impact of the underlying on the fair value or cost of the asset being purchased or sold (or of an ingredient or direct factor, as appropriate).
- ▶ The underlying is a currency exchange rate involving a foreign currency that is neither (1) the functional currency²¹ or the local currency of any substantial party to the contract, nor (2) the currency in which the underlying asset is routinely denominated in international commerce (such as the US dollar for crude oil).

²⁰ The phrase “clearly and closely related” with respect to the NPNS scope exception is intended to convey a different meaning than in ASC 815-15-25-1(a), 815-15-25-16 and 815-15-55-119 related to embedded derivatives (see chapter 3).

²¹ Including currencies used as the functional currency because the primary economic environment in which one of the substantial parties to the contract operates is highly inflationary (as discussed in ASC 830-10-45-11).

How we see it

We believe that one approach for evaluating price adjustment features is to focus on the relationship between the fixed forward price known at the contract's inception and the later spot price that will be evident in the marketplace at the time the buy or sell transaction occurs.

When "t" represents the time remaining until maturity, at inception:

$$\text{Forward price for time } t = \text{spot price} (1 + \text{cost of carry})^t$$

^t Time to maturity

"Cost of carry" represents storage cost plus interest paid to finance the asset, less any income earned from that asset (also known as the "convenience yield" from having a commodity on hand should shortages occur).

Fixed price forward purchase and forward sale contracts with no price adjustment clauses essentially fix all of the variables in the equations above and lock in the unique forward price associated with the delivery date of the contract. These contracts can qualify for the NPNS scope exception without having to consider the "clearly and closely related" factors above.

We believe that the NPNS scope exception can be available to a contract with a price adjustment feature that lies within these two extremes, meaning a feature that allows an "unlocking" of any of the elements in the component of the forward price (the spot price or ingredients thereto, storage costs, interest paid to finance the asset, convenience yield) and allows that element or elements to float with the market.

In such situations, the "price adjustment clause" would be clearly and closely related to the asset being bought or sold because the element being adjusted is by definition a component of the forward price of the asset. (Of course, such price adjustments would have to be in proportion to the notional amount of the contract and also consider the magnitude and direction of the impact.) Such contracts are essentially "partially fixed, partially floating" contracts, but the floating elements all relate to defining components of the asset's expected future price and, by definition, will be more likely to result in a future transaction between parties that lies closer to the then-spot price of the asset than would a plain-vanilla fixed price contract that locks in *all* components of the forward price at inception.

2.5.2.5 Freestanding option contracts

Option contracts, which would require delivery of the related asset at an established price under the contract only if exercised, are not eligible for the NPNS scope exception because option contracts only contingently provide for such purchase or sale as exercise of the option contract is not assured. Accordingly, it would be impossible to determine at the inception of the contract that it will be probable throughout the term of the contract that physical delivery will occur.²²

2.5.2.6 Forward contracts with optionality features

Some forward contracts contain optionality features that permit the purchaser to modify the quantity to be delivered under the contract. These types of contracts may be entered into to make sure there is a supply of a necessary commodity in the event of increased demand for the product that the commodity will be used to manufacture. Similar to a freestanding option contract, this type of contract is not eligible

²² As discussed further in section 2.5.2.7 below, a special exception to this provision was granted for certain option-type contracts in electricity if certain specific requirements are met. See ASC 815-10-15-37, 15-45 through 15-51 and 815-10-55-31 for these specific requirements.

for the NPNS scope exception because it would not be possible to determine at inception or throughout the term of the contract that physical delivery of a set quantity of the asset would occur.²³ An example of a prohibited contract is the obligation to purchase 100,000 barrels of crude oil at \$35/barrel and the option to purchase up to an additional 50,000 barrels at \$37/barrel for delivery two months in the future.

How we see it

Although the FASB concluded that physical option contracts are not eligible for the NPNS scope exception, it is important to note that forward contracts containing optionality features that relate only to the price of the commodity *would* be eligible. In this case, the optionality feature does not modify the quantity of the asset to be delivered under the contract. For example, a forward contract that is priced based on a variable index but is capped (or floored) at a fixed amount per unit would still be eligible to qualify for the scope exception despite the optionality with respect to the ultimate price. This distinction is addressed in ASC 815-10-15-43 and 55-121 through 55-131.

ASC 815 precludes an entity from bifurcating a compound derivative instrument.²⁴ Similarly, under the guidance in ASC 815-10-15-44 and 55-24 through 55-30, it is not permissible for entities to bifurcate a forward contract that also contains an optionality feature related to the quantity to be delivered (e.g., a contract that provides the obligation to purchase 100,000 barrels of crude oil at \$35/barrel and the right to purchase up to an additional 50,000 barrels at \$37/barrel for delivery two months in the future) into a forward contract and an option contract with the intention of applying the NPNS scope exception to the forward-based component. As a result, these types of contracts (commonly known as “swing” contracts in the energy industry) that provide for the purchase or sale of a specified volume of a commodity but include an option to buy or sell additional defined amounts at a fixed price (in order to satisfy peak demands, for example) are treated as derivatives in their entirety.

How we see it

One possible relief available to entities is to structure these contracts as two separate agreements: a regular forward contract and a freestanding option component. In this case, the forward contract could be eligible for the NPNS scope exception, and only the option contract would be subject to accounting as a derivative. This strategy is suggested in ASC 815-10-55-24 through 55-30.

Entities may also consider restructuring the swing contract so that it represents a “requirements” contract where the notional is not determinable (explicitly or implicitly in the terms of the agreement) for amounts in excess of the minimum required volumes. Such a structure results in a derivative contract only up to the minimum required volumes, which makes it eligible for the NPNS scope exception.

For example, the crude oil purchase agreement described above that provided the purchaser with the obligation to purchase 100,000 barrels of crude oil at \$35/barrel and the option to purchase up to an additional 50,000 barrels at \$37/barrel for delivery two months in the future could be restructured to provide the purchaser with the ability to purchase *up to* 50,000 additional barrels based on the purchaser’s requirements. In a requirements contract, the ultimate notional is not necessarily equal to the maximum notional (e.g., 50,000 barrels) because it is not necessarily determinable in advance that 50,000 barrels will be the amount needed by the purchaser. Refer to section 2.4.2 for further guidance in determining whether a notional amount is present.

²³ A special exception to this provision was granted for certain forward contracts in electricity with optionality features if certain specific requirements are met. See ASC 815-10-15-37, 15-45 through 15-51, and 55-31 for these specific requirements. See section 2.5.2.7 below for further discussion.

²⁴ See ASC 815-15-25-7 through 25-10, 815-20-25-45 and 25-71.

2.5.2.7

Power purchase or sale agreements**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Overall***Scope and Scope Exceptions**Application to Power Purchase or Sale Agreements***815-10-15-45**

Notwithstanding the criteria in paragraphs 815-10-15-41 through 15-44, a power purchase or sales agreement (whether a forward contract, option contract, or a combination of both) that is a capacity contract for the purchase or sale of electricity also qualifies for the normal purchases and normal sales scope exception if all of the following applicable criteria are met:

- a. For both parties to the contract, both of the following criteria are met:
 1. The terms of the contract require physical delivery of electricity. That is, the contract does not permit net settlement, as described in paragraphs 815-10-15-100 through 15-109. For an option contract, physical delivery is required if the option contract is exercised. Certain contracts for the purchase or sale of electricity on a forward basis that necessitate transmission through, or delivery to a location within, an electricity grid operated by an independent system operator result in one of the contracting parties incurring charges (or credits) for the transmission of that electricity based in part on locational marginal pricing differences payable to (or receivable from) the independent system operator. For example, this is the case when the delivery location under the contract (for example, a hub location) is not the same location as the point of ultimate consumption of the electricity or the point from which the electricity exits the electricity grid for transmission to a customer load zone. Delivery to the point of ultimate consumption or the exit point is facilitated by the independent system operator of the grid. The use of locational marginal pricing to determine the transmission charge (or credit) does not constitute net settlement, even in situations in which legal title to the associated electricity is conveyed to the independent system operator during transmission.
 2. The power purchase or sales agreement is a capacity contract. Differentiating between a capacity contract and a traditional option contract (that is, a financial option on electricity) is a matter of judgment that depends on the facts and circumstances. For power purchase or sale agreements that contain option features, the characteristics of an option contract that is a capacity contract and a traditional option contract, which are set forth in paragraph 815-10-55-31 shall be considered in that evaluation; however, other characteristics not listed in that paragraph may also be relevant to that evaluation.
- b. For the seller of electricity: The electricity that would be deliverable under the contract involves quantities that are expected to be sold by the reporting entity in the normal course of business.
- c. For the buyer of electricity, all of the following criteria are met:
 1. The electricity that would be deliverable under the contract involves quantities that are expected to be used or sold by the reporting entity in the normal course of business.
 2. The buyer of the electricity under the power purchase or sales agreement is an entity that meets both of the following criteria:
 - i. The entity is engaged in selling electricity to retail or wholesale customers.
 - ii. The entity is statutorily or otherwise contractually obligated to maintain sufficient capacity to meet electricity needs of its customer base.

3. The contracts are entered into to meet the buyer's obligation to maintain a sufficient capacity, including a reasonable reserve margin established by or based on a regulatory commission, local standards, regional reliability councils, or regional transmission organizations.

815-10-15-46

Power purchase or sales agreements that meet only the applicable criteria in paragraph 815-10-15-45 qualify for the normal purchases and normal sales scope exception even if they are subject to being booked out or are scheduled to be booked out.

815-10-15-47

Forward contracts for the purchase or sale of electricity that do not meet those applicable criteria as well as other forward contracts are nevertheless eligible to qualify for the normal purchases and normal sales scope exception by meeting the criteria in this Subsection (other than paragraph 815-10-15-45), unless those contracts are subject to unplanned netting (that is, subject to possibly being booked out).

815-10-15-48

Because electricity cannot be readily stored in significant quantities and the entity engaged in selling electricity is obligated to maintain sufficient capacity to meet the electricity needs of its customer base, an option contract for the purchase of electricity that meets the criteria in paragraph 815-10-15-45 qualifies for the normal purchases and normal sales scope exception in that paragraph.

815-10-15-49

This guidance does not affect the accounting for requirements contracts that would not be required to be accounted for under the guidance in this Subtopic pursuant to paragraphs 815-10-55-5 through 55-7.

815-10-15-50

Contracts that qualify for the normal purchases and normal sales scope exception based on this guidance do not require compliance with any additional guidance in paragraphs 815-10-15-22 through 15-44. However, contracts that have a price based on an underlying that is not clearly and closely related to the electricity being sold or purchased or that are denominated in a foreign currency that meets none of the criteria in paragraph 815-15-15-10(b) shall not be considered normal purchases and normal sales.

815-10-15-51

This guidance shall not be applied by analogy to the accounting for other types of contracts not meeting the stated criteria.

For power purchase and sale agreements that meet the definition of a capacity contract, ASC 815 provides some additional flexibility for meeting the normal purchases and sales scope exception. For example, power contracts that are determined to be capacity contracts that are options (or forwards with optionality) are not precluded from applying the scope exception, if all of the other criteria specific to power contracts as described above are met. Additionally, power contracts that meet the definition of a capacity contract qualify for the NPNS scope exception even when they are subject to unplanned netting (commonly referred to as a book-out in the electric utility industry).

When power purchase and sales agreements contain optionality, judgment is required to determine when the option is considered a capacity contract (which can qualify for the scope exception) or a traditional option (which does not qualify for the exception). A list of characteristics relevant in making this determination is provided in ASC 815-10-55-31.

Given the unique nature of the power industry, where the output (i.e., electricity) cannot be stored in any significant quantities but sufficient capacity has to be maintained by entities engaged in selling electricity to meet customer demand, the FASB concluded that this additional flexibility was necessary, and the substance of these transactions was consistent with the intention of the NPNS scope exception.

However, unlike the general criteria, which only require an entity to assert that physical delivery is probable, to qualify for the scope exception under the criteria specific to power contracts, these capacity contracts have to require physical delivery (i.e., contractual net settlement is not permitted).

2.5.2.8

Application of the scope exception to certain power contracts in nodal markets

Entities are not precluded from applying the NPNS scope exception to certain forward contracts that necessitate the transmission of electricity through, or delivery to a location within, a nodal energy market.²⁵

Under both the general criteria (in ASC 815-10-15-36A) and the criteria specific to power purchase or sale arrangements (in ASC 815-10-15-45), the use of locational marginal pricing by an independent system operator (ISO) to determine a transmission charge or credit in a nodal energy market does not constitute a net settlement of a forward contract for the purchase or sale of electricity, even when legal title to the electricity is conveyed to the ISO during transmission. As a result, these contracts would meet the physical delivery criterion in ASC 815 and qualify for the NPNS scope exception to derivative accounting if they meet all of the other relevant criteria (i.e., the general criteria or the criteria specific to power purchase or sale agreements that meet the definition of capacity contracts, as applicable).

The guidance also states that the forward purchase or sale contract and the transmission services do not constitute a series of sequential contracts intended to accomplish the ultimate acquisition or sale of a commodity, which ASC 815-10-15-41 precludes from qualifying for the NPNS scope exception.

The substance of the contracts in question requires the physical delivery of electricity, and the intent of the parties to those contracts is to physically deliver the electricity, which is consistent with the Board's intent when it provided the NPNS scope exception.

How we see it

- ▶ ASC 815 does not address whether specific types of contracts in nodal markets are eligible for the NPNS scope exception. The Board did not want to create a broad principle that could result in the guidance being applied to contracts in nodal markets that are not consistent with its intent when it provided the NPNS scope exception.
- ▶ The guidance applies only to contracts that necessitate the transmission of electricity in or through nodal markets. Entities should not apply it by analogy to electricity contracts in other types of markets or to other commodities (e.g., natural gas). This is consistent with the FASB's belief that purchases and sales of power should be treated differently from purchases and sales of other commodities because power cannot be stored in significant quantities.

²⁵ The guidance describes a nodal energy market as an interconnected electricity grid operated by an ISO with established price points at each node or hub location. The ISO's objective is to promote the most efficient generation and transmission of electricity within the nodal market.

2.5.2.9 Energy contract (non-trading) analysis

The following table summarizes the analysis process for energy contracts:

| Analysis | Considerations | Additional considerations |
|---|--|--|
| Step 1: Is the contract a derivative? | <ul style="list-style-type: none"> ▶ Underlying and notional ▶ Initial net investment ▶ Net settlement | <ul style="list-style-type: none"> ▶ If the contract requires physical settlement, is the commodity readily convertible to cash? ▶ If the contract is a requirements contract, is the notional amount known? |
| Step 2: If contract is a derivative (based on Step 1) does it qualify for exception from ASC 815? Is contract a normal purchase or sale? | <ul style="list-style-type: none"> ▶ Gross settlement required (contract cannot be net settled) or physical delivery is probable (probability must be documented, and physical delivery must occur) ▶ Normal quantities and time period – compare with historical activity, business needs, other similar contracts ▶ Clearly and closely related pricing terms – terms are not extraneous to either the changes in the cost or fair value of the asset being sold or purchased and are proportional in magnitude and direction ▶ Are contracted quantities fixed – is there any optionality as to quantities? | <ul style="list-style-type: none"> ▶ Consider the characteristics of the contract in relation to past practice, industry practice, probability of physical delivery (gather statistics on practice of not delivering physically), etc. ▶ Examine contracts used in a series of contracts – passage of “flash title” could be considered gross settlement. ▶ Consider restructuring into two legal contracts – (1) a “normal” forward purchase or sale contract and (2) an optional delivery contract providing the desired pricing that would be fair valued through earnings if not eligible for hedge accounting. |
| Step 3: If the contract does not qualify for NPNS scope exception (based on Step 2) apply ASC 815 | <ul style="list-style-type: none"> ▶ If any of the considerations in Step 2 are “no,” ASC 815 is applied | <ul style="list-style-type: none"> ▶ Establish procedures to periodically determine the fair value of the contract. ▶ Determine whether the contract can be treated as an “all-in-one cash flow hedge.” ▶ Determine and document the hedging relationship and hedge effectiveness considerations, and account for the contract as a cash flow or fair value hedge if eligible. ▶ Consider utilizing regression or other statistical techniques to assess hedge effectiveness. (Analyze the impact of location and grade differences in assessing effectiveness if needed.) |

2.5.3 Certain insurance contracts

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Insurance Contracts

815-10-15-52

A contract is not subject to the requirements of this Subtopic if it entitles the holder to be compensated only if, as a result of an identifiable insurable event (other than a change in price), the holder incurs a liability or there is an adverse change in the value of a specific asset or liability for which the holder is at risk. Only those contracts for which payment of a claim is triggered only by a bona fide insurable exposure (that is, contracts comprising either solely insurance or both an insurance component and a derivative instrument) may qualify for this scope exception. To qualify, the contract must provide for a legitimate transfer of risk, not simply constitute a deposit or form of self-insurance.

815-10-15-53

The following types of contracts written by insurance entities or held by the insureds are not subject to the requirements of this Subtopic for the reasons given:

- a. Traditional life insurance contracts. The payment of death benefits is the result of an identifiable insurable event (death of the insured) instead of changes in a variable.
- b. Traditional property and casualty contracts. The payment of benefits is the result of an identifiable insurable event (for example, theft or fire) instead of changes in a variable.

815-10-15-54

In addition, some contracts with insurance or other entities combine derivative instruments with other insurance products or nonderivative contracts, for example, indexed annuity contracts, variable life insurance contracts, and property and casualty contracts that combine traditional coverages with foreign currency options. Contracts that consist of both derivative portions and nonderivative portions are addressed in paragraph 815-15-25-1. However, insurance entities enter into other types of contracts that may be subject to the provisions of this Subtopic.

815-10-15-55

A property and casualty contract that provides for the payment of benefits or claims as a result of both an identifiable insurable event and changes in a variable would in its entirety not be subject to the requirements of this Subtopic (and thus not contain an embedded derivative that is required to be separately accounted for as a derivative instrument) provided all of the following conditions are met:

- a. Benefits or claims are paid only if an identifiable insurable event occurs (for example, theft or fire).
- b. The amount of the payment is limited to the amount of the policyholder's incurred insured loss.
- c. The contract does not involve essentially assured amounts of cash flows (regardless of the timing of those cash flows) based on insurable events highly probable of occurrence because the insured would nearly always receive the benefits (or suffer the detriment) of changes in the variable.

815-10-15-56

If there is an actuarially determined minimum amount of expected claim payments that are the result of insurable events that are highly probable of occurring under the contract, that portion of the contract does not qualify for the insurance scope exception if both of the following conditions are met:

- a. Those minimum payment cash flows are indexed to or altered by changes in a variable.
- b. Those minimum payment amounts are expected to be paid each policy year (or on another predictable basis).

815-10-15-57

If an insurance contract has an actuarially determined minimum amount of expected claim payments that are highly probable of occurring, then effectively the amount of those claims is the contract's minimum **notional amount** in determining the embedded derivative under Section 815-15-25.

ASC 815 does not apply to insurance contracts that entitle the holder to compensation only if, as a result of an *identifiable insurable event* (other than a change in price), the holder incurs a liability or there is an unfavorable change in the value of an asset or liability for which the holder is at risk. Traditional life insurance and property and casualty contracts are the most common types of contracts that are exempted from ASC 815 under this provision. In a traditional life insurance contract, the identifiable insurable event is the death of the insured.

However, some nontraditional life insurance contracts function primarily as investment contracts with only an incidental death benefit. These contracts need to be analyzed for the presence of an embedded derivative. (See chapter 3 for further discussion of embedded derivatives.) In most cases, the death benefit component

is excluded from the scope of ASC 815, but the investment component – the portion not dependent on the occurrence of an identifiable insurable event – needs to be analyzed on its own merits to determine whether ASC 815 applies.

The key to determining whether a contract qualifies for the “insurance exception” is whether the value of the contract is determined by the occurrence of an identifiable insurable event rather than a change in an index or price. If the payoff of the contract fluctuates based on changes in an index or market price, as opposed to an identifiable insurable event, the contract does not qualify for the exception, even if it was issued by an insurance company. (See Appendix C of this publication for a further discussion of the application of ASC 815 to insurers and insurance products.)

2.5.4 Certain financial guarantee contracts

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Financial Guarantee Contracts

815-10-15-58

Financial guarantee contracts are not subject to this Subtopic only if they meet all of the following conditions:

- a. They provide for payments to be made solely to reimburse the guaranteed party for failure of the debtor to satisfy its required payment obligations under a nonderivative contract, either:
 1. At prespecified payment dates
 2. At accelerated payment dates as a result of either the occurrence of an event of default (as defined in the financial obligation covered by the guarantee contract) or notice of acceleration being made to the debtor by the creditor.
- b. Payment under the financial guarantee contract is made only if the debtor’s obligation to make payments as a result of conditions as described in (a) is past due.
- c. The guaranteed party is, as a precondition in the contract (or in the back-to-back arrangement, if applicable) for receiving payment of any claim under the guarantee, exposed to the risk of nonpayment both at inception of the financial guarantee contract and throughout its term either through direct legal ownership of the guaranteed obligation or through a back-to-back arrangement with another party that is required by the back-to-back arrangement to maintain direct ownership of the guaranteed obligation.

In contrast, financial guarantee contracts are subject to this Subtopic if they do not meet all three criteria, for example, if they provide for payments to be made in response to changes in another underlying such as a decrease in a specified debtor’s creditworthiness.

A financial guarantee contract that reimburses a creditor for a creditor’s losses if a debtor fails to pay is excluded from the scope of ASC 815. However, many contracts that call themselves “financial guarantees” are not exempted, and instead are viewed as “credit derivatives” that are accounted for in accordance with the requirements of ASC 815.

The holder of the financial guarantee contract can vary. In some cases, it will be the issuer of the insured financial obligation (for example, a municipality, a corporation, a trust) because it is seeking to increase the marketability of the insured financial obligation while reducing future interest costs (by attaining a higher credit rating for the insured financial obligation through the financial guarantee contract). In other cases, it will be the holder of the insured financial obligation because it has purchased a financial

obligation in the secondary market and wants to protect itself from a financial loss in the event of a default. In the former case, the holder of the guarantee and the guaranteed party are not the same, but in the latter case, they are likely the same.

These requirements suggest that exempted financial guarantee contracts function in a way that is similar to traditional insurance contracts. For example, in the Background Information of Statement 149, the FASB indicated its belief that to qualify for the exemption, the guarantee contract has to require that the guaranteed party demand payment from the past-due debtor prior to collecting any payment from the guarantor. Furthermore, to receive payment from the guarantor, the guaranteed party has to relinquish to the guarantor its rights to receive any future recoveries from the debtor.

Further, the criteria in ASC 815 suggest that the amount paid to the guaranteed party under the contract cannot exceed the loss incurred by the guaranteed party relating to the guaranteed asset either from owning the reference asset or from back-to-back arrangements with another party (that is required by the back-to-back arrangement to maintain direct ownership of the guaranteed obligation).

As a result, guarantee contracts that provide for payment upon any “non-payment-based” default events rather than just upon a “failure to pay when payment is due” will likely not qualify for the scope exception. Non-payment-based default events include bankruptcy, violation of a debt covenant, changes in credit ratings or a change in control. However, if the underlying debt requires that payments not yet contractually due be automatically accelerated in the event that a “non-payment-based” default event occurs, the guarantee contract, considered in conjunction with the debt with acceleration provisions, would be viewed as a “failure to pay when payment is due” contract and therefore may qualify for the financial guarantee exception. Such contracts still need to require the guaranteed party to maintain direct loss exposure to the reference asset at inception and throughout its life to be exempted from ASC 815.

How we see it

The term “credit derivative” is used loosely in practice and can refer to any contract that attempts to transfer credit risk to a counterparty. Some credit derivative contracts may qualify for the financial guarantee exception, but many will not. The criteria that contracts need to meet to satisfy the ASC 815 exemption are often too onerous for one or both counterparties.

For example, many credit derivatives do not require that the purchasers of credit protection maintain direct exposure to the reference asset at inception and throughout the life of the contract. This helped the credit derivative market become broader and more liquid, as investors such as hedge funds purposefully seek the risk/return profile associated with credit and default exposure without desiring to own the actual reference debt securities.

In addition, many credit derivatives make a payment based on the change in value of a reference security upon the occurrence of a credit event rather than to reimburse the counterparty for an actual loss incurred. A credit derivative contract may still require that the defaulted reference security be surrendered as a precondition for receiving the guarantee payment, but the counterparty may satisfy this requirement by acquiring the security in the open market after it has defaulted.

Many purchasers of credit derivatives want protection that is broader than simply protection against a “failure to pay when payment is due.” Instead they seek compensation upon earlier signs of credit deterioration, such as credit downgrades, debt covenant violations and bankruptcy filings. Credit derivatives that do not meet the criteria for an exempted financial guarantee contract are subject to the requirements of ASC 815.

An issuer of a guarantee that is excluded from the scope of ASC 815 should consider the applicable recognition, measurement and disclosure guidance in ASC 460. However, it's important to note that the disclosure requirements in ASC 460 also apply to financial guarantee contracts accounted for as derivative instruments under ASC 815, with the exception of credit derivatives accounted for under ASC 815. In addition, ASC 944 provides guidance on the accounting by insurance entities for financial guarantee insurance contracts and reinsurance contracts that do not meet the definition of a derivative.

2.5.5 Certain non-exchange-traded contracts

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Contracts That Are Not Traded on an Exchange

815-10-15-59

Contracts that are not exchange-traded are not subject to the requirements of this Subtopic if the underlying on which the settlement is based is any one of the following:

- a. A climatic or geological variable or other physical variable. Climatic, geological, and other physical variables include things like the number of inches of rainfall or snow in a particular area and the severity of an earthquake as measured by the Richter scale. (See Example 13 [paragraph 815-10-55-135].)
- b. The price or value of a nonfinancial asset of one of the parties to the contract provided that the asset is not readily convertible to cash. This scope exception applies only if both of the following are true:
 1. The nonfinancial assets are unique.
 2. The nonfinancial asset related to the underlying is owned by the party that would not benefit under the contract from an increase in the fair value of the nonfinancial asset. (If the contract is a call option, the scope exception applies only if that nonfinancial asset is owned by the party that would not benefit under the contract from an increase in the fair value of the nonfinancial asset above the option's strike price.)
- c. The fair value of a nonfinancial liability of one of the parties to the contract provided that the liability does not require delivery of an asset that is readily convertible to cash.
- d. Specified volumes of sales or service revenues of one of the parties to the contract. (This scope exception applies to contracts with settlements based on the volume of items sold or services rendered, for example, royalty agreements. This scope exception does not apply to contracts based on changes in sales or revenues due to changes in market prices.)

815-10-15-60

If a contract has more than one underlying and some, but not all, of them qualify for one of the scope exceptions in the preceding paragraph, the application of this Subtopic to that contract depends on its predominant characteristics. That is, the contract is subject to the requirements of this Subtopic if all of its underlyings, considered in combination, behave in a manner that is highly correlated with the behavior of any of the component variables that do not qualify for a scope exception.

Certain types of non-exchange-traded contracts are excluded from ASC 815 if the underlying meets certain requirements discussed below, even if the contract is net settleable by its own terms or by a market mechanism *other than* an exchange.

If a contract has more than one underlying and some, but not all, of the underlyings qualify for one of the exceptions discussed below, the application of ASC 815 depends on the contract's predominant characteristics. If multiple underlyings considered together tend to behave like a component variable that does not qualify for an exception, the contract is subject to ASC 815.

2.5.5.1 Climatic, geological or other physical variables

If the contract is not exchange-traded and the underlying is based on a climatic, geological or other physical variable, the contract is not in the scope of ASC 815. For example, a contract between a counterparty and a ski lodge, which will benefit the ski lodge if snowfall accumulations based on a certain index are below "x" inches and benefit the counterparty if the accumulations are above "y" inches would qualify for this exception. It is important to remember that it is the underlying that must have climatic, geological or other physical characteristics. If the underlying is really a financial variable (e.g., the dollar amount of damage from an earthquake) instead of a pure physical variable (e.g., the measure on the Richter scale), this exception would not apply.²⁶

For instance, a contract that pays the counterparty if earthquake damage in the state of California in 20X1 exceeds \$100 million would not qualify for the physical variable exception. On the other hand, a contract that pays \$100 million if an earthquake exceeding 4.0 on the Richter scale occurs in California in 20X1 would qualify for the exception because the underlying is not a financial variable. However, a contract that reimburses a party for the actual dollar damages suffered by that party as a result of an earthquake in California in 20X1 would likely qualify for the insurance contract scope exception previously discussed.

Examples of underlyings that would qualify for this exception include:

- ▶ Inches of snow or rainfall (e.g., to hedge against a bad ski season or a ruined crop)
- ▶ Earthquakes as measured by the Richter scale
- ▶ Heating degree days or average temperatures (e.g., to hedge against weak heating oil sales because of warm winters or weak soft drink sales because of cool summers)

2.5.5.2 Nonfinancial assets or liabilities

ASC 815 doesn't apply to a contract that is not exchange-traded and has an underlying that is the price or value of a nonfinancial asset of one of the parties that is not readily convertible to cash or a nonfinancial liability of one of the parties that does not require the delivery of an asset that is readily convertible to cash.

This provision is important when evaluating contracts that meet the derivative definition because of net settlement provisions, such as liquidating damages clauses, or for which a market mechanism that facilitates net settlement exists. When a nonfinancial item, such as a manufactured good, is the subject of the contract and that item is not readily convertible to cash, a purchase/sale contract, even though it has net settlement provisions, would not be accounted for as a derivative.

However, the FASB concluded that this exception applies only if (1) the nonfinancial assets are unique (i.e., not to interchangeable or fungible units of a nonfinancial asset) and (2) the nonfinancial asset related to the underlying is owned by the party that would not benefit under the contract from an increase in the price or value of the nonfinancial asset²⁷ (e.g., a fixed-priced sales contract by the party that owns the unique item). To be considered a unique nonfinancial asset, an asset has to possess significant characteristics that are specific to it. The location and physical attributes specific to real estate (e.g., the Empire State Building) and the details in a unique work of art (e.g., the Mona Lisa) are examples.

²⁶ See ASC 815-10-55-135 through 55-141.

²⁷ See ASC 815-10-55-142 and 55-143.

We believe this exception would also extend to specially manufactured goods, such as special engine parts purchased by an automotive or aircraft manufacturer, even though the contract is net settleable based on the current price for such parts relative to the contract price.

The criteria typically will be met if the settlement terms in the contract are based upon a *specific* referenced nonfinancial asset that is owned by the party to the contract that is obligated to deliver the asset. In contrast, if the underlying in the contract is a price or valuation *index* (or other referenced general valuation source, like the *Kelley Blue Book* guide for used cars) without considering the specific nonfinancial asset, this exception would not apply.

How we see it

While a contract to sell a used car may include net settlement provisions based on its appraised value, if the contract calls for net settlement based on an indicated quote from the *Blue Book*, it would not be exempt from ASC 815, even though that quote may provide a realistic approximation of the car's value. To be exempt, the contract would have to reference an actual appraised value of the specific car or, if it initially referenced the *Blue Book* value, would have to include adjustments for any unique features, both favorable and unfavorable, of the car (e.g., color, body condition, sound system, power windows).

In addition, to determine whether a nonfinancial asset is exempt from ASC 815, an entity needs to assess whether the asset is readily convertible to cash. While many assets have readily available prices published online, there also needs to be an active, liquid market in which the asset could be converted to cash in a relatively short time period. Therefore, the breadth of this exception will need to be reevaluated as markets continue to evolve.

2.5.5.3

Specified volumes of sales or service revenues

If the contract is not exchange traded and the underlying is a specified volume of an entity's sales or service revenues (units or dollars), it is excluded from the scope of ASC 815. For example, a landlord of a shopping center may have a lease arrangement whereby a component of the lease charge is based on each tenant's monthly sales volume. Another example is a royalty contract that requires movie theater XYZ to pay movie studio ABC a stated rate based on the dollar volume of XYZ's ticket sales during the first two weeks of a given movie's release. The royalty contract also would qualify for the exception because the underlying is the movie theater's revenues.

How we see it

By "specified" we believe the FASB means the individual sales of one of the parties to the contract. We do not believe a broad-based measure for an entire industry qualifies for this exception. For example, a travel agency's royalty contract with an airline would need to be based on actual ticketed passengers flown for that airline and not on an index relative to total US passenger miles for all airlines.

However, we believe that this exception has broader application than just the specified volumes of sales or service revenues of one of the parties to the contract. ASC 815-15-55-10 states that this exception would typically apply when the underlying is based on a share in net earnings or operating cash flows.

2.5.6 Impediments to sales accounting²⁸

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Derivative Instruments That Impede Sale Accounting

815-10-15-63

A derivative instrument (whether freestanding or embedded in another contract) whose existence serves as an impediment to recognizing a related contract as a sale by one party or a purchase by the counterparty is not subject to this Subtopic. An example is the existence of a call option enabling a transferor to repurchase transferred assets that is an impediment to sales accounting under Topic 860. Such a call option on transferred financial assets that are not readily obtainable would prevent accounting for that transfer as a sale. The consequence is that to recognize the call option would be to count the same thing twice. The holder of the option already recognizes in its financial statements the assets that it has the option to purchase.

If a contract or an embedded portion of a contract serves as an impediment to recognizing a related contract as a sale of an asset by one party or a purchase of that asset by the counterparty, it is specifically excluded from the scope of ASC 815. This provision avoids a double counting problem if the derivative and the related asset were both on the balance sheet. ASC 815-10-15-64 and 55-41 provide additional examples of the application of this exception.

2.5.7 Investments in life insurance

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Investments in Life Insurance

815-10-15-67

A policyholder's investment in a life insurance contract that is accounted for under Subtopic 325-30 is not subject to this Subtopic. This scope exclusion does not affect the accounting by the issuer of the life insurance contract.

For practical reasons, policyholders of certain life insurance contracts such as corporate-owned life insurance (COLI), bank-owned life insurance (BOLI) or key-man insurance who account for them under ASC 325-30 are exempted from applying ASC 815. ASC 325-30 requires policyholders to measure such contracts at their cash surrender value or contract value with changes in value recognized in the income statement during the contract period. Because contract value may not equal the fair value of the insurance policy, without this exemption, policyholders would have had to evaluate the insurance policy for bifurcation of embedded derivatives.

²⁸ ASU 2016-02, *Leases (Topic 842)* amends ASC 815-10-15-63 to eliminate the example in this paragraph that refers to the existence of a residual value guarantee as an impediment to treating the contract as a sales-type lease because the classification criteria for lessors has changed under ASC 842. ASU 2016-02 was effective for PBEs, employee benefit plans that file financial statements with the SEC and certain not-for-profit entities in annual periods beginning after 15 December 2018, and interim periods within those annual periods. For all other entities, the effective date was deferred to annual periods beginning after 15 December 2021, and interim periods within annual periods beginning after 15 December 2022 in accordance with ASU 2020-05.

2.5.8 Certain investment contracts held by benefit plans

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Investment Contracts

815-10-15-68

A contract that is accounted for under either paragraph 960-325-35-1 or 960-325-35-3 is not subject to this Subtopic. This scope exception applies only to the party that accounts for the contract under Topic 960.

815-10-15-68A

The wrapper of a synthetic guaranteed investment contract that meets the definition of a **fully benefit-responsive investment contract** that is held by an employee benefit plan is excluded from the scope of this Subtopic.

Certain specialized areas in US GAAP require certain investment contracts to be accounted for at contract value (essentially intrinsic value), which may not equal the contract's fair value. For practical reasons, the Board decided to exempt such contracts from ASC 815 and the possibility that such contracts would have to be evaluated for bifurcation of embedded derivatives. This exception applies only to entities that account for contracts under either ASC 960-325-35-1 (a contract with benefit-responsive provisions reported as an investment contract) or ASC 960-325-35-3 (insurance contracts presented at contract value if so specified in the annual report filed by a defined benefit pension plan with certain government agencies pursuant to the Employee Retirement Income Security Act). This exception does not apply to the issuer of the contract.

2.5.9 Certain loan origination commitments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Loan Commitments

815-10-15-69

For the holder of a commitment to originate a loan (that is, the potential borrower), that commitment is not subject to the requirements of this Subtopic. For issuers of commitments to originate mortgage loans that will be held for investment purposes, as discussed in paragraphs 948-310-25-3 through 25-4, those commitments are not subject to this Subtopic. In addition, for issuers of **loan commitments** to originate other types of loans (that is, other than mortgage loans), those commitments are not subject to the requirements of this Subtopic.

815-10-15-70

The preceding paragraph does not affect the accounting for commitments to purchase or sell mortgage loans or other types of loans at a future date. Those types of loan commitments must be evaluated under the definition of a derivative instrument to determine whether this Subtopic applies.

815-10-15-71

Notwithstanding the characteristics discussed in paragraph 815-10-15-83, loan commitments that relate to the origination of mortgage loans that will be held for sale, as discussed in paragraph 948-310-25-3, shall be accounted for as derivative instruments by the issuer of the loan commitment (that is, the potential lender).

ASC 815 provides a scope exception for potential borrowers under all commitments to originate loans, issuers (i.e., potential lenders) of commitments to originate non-mortgage loans (such as commercial loans) and issuers of commitments to originate mortgage loans that will be held for investment (as discussed in ASC 948-310-25-3 and 25-4).

In contrast, ASC 310-10-15-3, 25-6 and ASC 815-10-15-70 clarify that loan commitments relating to the origination of mortgage loans that will be held for resale, as discussed in ASC 948-310-25-3, are accounted for as derivatives in accordance with ASC 815 by the potential lenders.

When determining the fair value of written loan commitments deemed to be derivatives (as well as those measured at fair value through earnings under the fair value option), registrants need to follow the guidance in SEC Staff Accounting Bulletin (SAB) 109. This guidance considers the principles in ASC 820 that de-link the concept of fair value from the transaction price and states that, in determining the fair value of written loan commitments, registrants should consider the expected net future cash flows related to the associated servicing of the future loan, consistent with the guidance in ASC 860-50 and ASC 825-10.

However, a separate and distinct servicing asset or liability is not recognized for accounting purposes until the servicing rights have been contractually separated from the underlying loan by sale or securitization of the loan with servicing retained. In addition, SAB 109 retains the view that no other internally developed intangible assets, such as customer relationship intangibles, should be recorded as part of the loan commitment derivative.

The FASB's decision on which types of loan origination commitments should be accounted for as derivatives generally reflected the principle that the underlying loan to which the commitment contract related is inherently "readily convertible to cash" as a result of the business activity of entering commitments to originate loans to be held for resale. In effect, the FASB determined that mortgage loans held for resale (as discussed primarily in ASC 948) should be deemed "readily convertible to cash" and all other loans should not.

While other types of loans, such as credit extended to commercial or industrial entities, may be considered "readily convertible to cash" based on facts and circumstances, the FASB believed that such circumstances would be unusual, and therefore, commitments for the origination of such loans should not follow ASC 815. Rather, they should continue to be accounted for in accordance with the guidance in ASC 310-20, unless the fair value option in ASC 825-10 is elected.

However, the characteristic-based approach to the definition of a derivative continues to apply to commitments to purchase or sell *already existing* loans in the secondary market for both parties to such arrangements. Accordingly, the requirement that a mortgage banker account for its commitment to originate a mortgage loan as a derivative provides the mortgage banker with a "natural hedge" in that both the commitment to originate a loan and a commitment to sell it in the secondary mortgage-backed security market are accounted for as derivatives. Because the fair value changes of both derivatives (one "long" and one "short") would tend to offset one another, the mortgage banker's financial statements can better reflect the interest rate neutrality that is created when both commitments are entered into at about the same time.

2.5.10 Certain contracts indexed to an entity's own stock and classified in stockholders' equity

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Contracts Involving an Entity's Own Equity

815-10-15-74

Notwithstanding the conditions of paragraphs 815-10-15-13 through 15-139, the reporting entity shall not consider the following contracts to be derivative instruments for purposes of this Subtopic:

- a. Contracts issued or held by that reporting entity that are both:
 1. Indexed to its own stock
 2. Classified in stockholders' equity in its statement of financial position.

Pending Content:

Transition Date: (P) December 16, 2021; (N) December 16, 2023 | Transition Guidance: 815-40-65-1

815-10-15-74

Notwithstanding the conditions of paragraphs 815-10-15-13 through 15-139, the reporting entity shall not consider the following contracts to be derivative instruments for purposes of this Subtopic:

- a. Contracts issued or held by that reporting entity that are both:
 1. Indexed to its own stock (see Section 815-40-15)
 2. Classified in stockholders' equity in its statement of financial position (see Section 815-40-25).

One of the cornerstones of ASC 815 is that derivative instruments represent assets or liabilities. Therefore, items appropriately classified in stockholders' equity in an entity's statement of financial position are not in the scope of ASC 815. For example, if an entity has issued a call option on its own common stock, the option may be exempted from the guidance in ASC 815 if it represents an equity transaction and neither an asset nor a liability.

Contracts that are often referred to as "equity derivatives" are generally instruments indexed to an entity's stock, not just instruments that meet the technical definition of a derivative under ASC 815. These instruments need to be closely evaluated to determine whether they meet the definition of a derivative under ASC 815, and then whether they qualify for the scope exception in ASC 815-10-15-74(a). To qualify for this exception, a contract has to be both indexed to the entity's own stock (as discussed in ASC 815-40-15) and classified in stockholders' equity (as discussed in ASC 815-40-25).

This exception is applicable to both freestanding equity derivative instruments (e.g., forward contracts, warrants) and embedded features (e.g., conversion options). Chapter 3 addresses the evaluation of embedded derivatives, and this section focuses on the application of the guidance to freestanding instruments.

In general, for the issuer, freestanding equity derivative instruments are first evaluated under ASC 480, which addresses several categories of instruments that are required to be classified as liabilities. Under ASC 480, for example, an option contract that could obligate an entity to purchase its own shares (a written put option) and certain obligations to issue a variable number of shares are not considered to be equity instruments. If a freestanding equity derivative is in scope of ASC 480, an entity would apply the

classification and measurement guidance in ASC 480. However, the instrument should be further evaluated to determine whether it meets the definition of a derivative and, therefore, would also be subject to the disclosures required for derivative instruments.

If the instrument is not in the scope of ASC 480, an entity would evaluate whether it meets the definition of a derivative and whether it would qualify for the scope exception based on the two criteria in ASC 815-10-15-74(a). For the first criterion regarding indexation, the entity would apply the guidance in ASC 815-40-15-5 through 15-8 and related implementation guidance in ASC 815-40-55-26 through 55-48 (the indexation literature). For the second criterion regarding classification, it would apply the guidance in ASC 815-40-25-1 through 25-43 and related interpretative guidance in ASC 815-40-55-1 through 55-18 (the equity classification literature). The application of the indexation and equity classification literature requires answering a series of questions to determine whether an “equity derivative” (or embedded feature as discussed in chapter 3) would be considered both indexed to an issuer’s own stock and classified in stockholders’ equity.

The indexation literature establishes a two-step model to determine whether an equity-linked instrument (or an embedded feature) is indexed to an entity’s own stock. Under that guidance, an equity-linked instrument (or an embedded feature) will be considered to be indexed to an entity’s own stock, provided that:

- ▶ Step 1 – Any exercise contingency provisions are not based on (1) an observable market, other than the market for the issuer’s stock (if applicable), or (2) an observable index, other than one calculated or measured solely by reference to the issuer’s own operations (e.g., sales revenue; earnings before interest, taxes, depreciation and amortization; net income or total equity of the issuer).
- ▶ Step 2 – The settlement amount will equal the difference between (1) the fair value of a fixed number of the entity’s equity shares and (2) a fixed monetary amount or a fixed amount of a debt instrument issued by the entity.

The second step requires that the settlement amount equal the difference between (1) the fair value of a fixed number of the entity’s equity shares and (2) a fixed monetary amount or another financial asset issued by the entity, such as a fixed stated principal amount of a bond (i.e., a fixed-for-fixed instrument). If the instrument is not a fixed-for-fixed instrument (i.e., if the strike price and/or the number of shares used to calculate the settlement amount is not fixed), it may still be considered indexed to an entity’s own stock, but only if the settlement amount is affected by variables that are inputs to the determination of the fair value of a fixed-for-fixed option or forward contract on equity shares (e.g., inputs to standard option-pricing models, such as Black-Scholes).

The illustrative examples in the indexation literature are critical for understanding how to apply the guidance. In addition, the series of questions that an issuer has to answer when applying the equity classification literature to evaluate the second criterion in ASC 815-10-15-74(a) should be carefully considered when negotiating the terms of an instrument, so that the final terms do not cause the instrument to be considered a liability, which would cause the exception in ASC 815-10-15-74(a) to be unavailable.

Under the equity classification literature, a contract (e.g., a warrant) generally would be classified in equity only if the entity can, in all circumstances, gross physically settle the contract (i.e., the gross exchange of the contractual shares for the contractual consideration) or net share settle the contract. If the contract could be required to be net cash settled (with limited exceptions), or such a settlement is (1) a contractual alternative that is not within the control of the issuer or (2) net cash settlement that is presumed (even if not contractually stated) because the issuer cannot assert that it will have the ability, in all cases, to effect the settlement of the contract in shares, equity classification is precluded. This test is extremely rigid because if there is any theoretical possibility that net cash settlement could be required, the instrument (or embedded feature) would require asset or liability classification, and the exception under ASC 815-10-15-74(a) would be unavailable.

For further information on the application of ASC 815-10-15-74(a) (i.e., the indexation and equity classification literature), see Appendix B in our FRDs, *Issuer's accounting for debt and equity financings (before the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)* and *Issuer's accounting for debt and equity financings (after the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)*.

2.5.11

Stock-based compensation

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Contracts Involving an Entity's Own Equity

815-10-15-74

Notwithstanding the conditions of paragraphs 815-10-15-13 through 15-139, the reporting entity shall not consider the following contracts to be derivative instruments for purposes of this Subtopic:

- b. Contracts issued by the entity that are subject to Topic 718. If any such contract ceases to be subject to Topic 718 in accordance with paragraphs 718-10-35-9 through 35-14, the terms of that contract shall then be analyzed to determine whether the contract is subject to this Subtopic. An award that ceases to be subject to Topic 718 in accordance with those paragraphs shall be analyzed to determine whether it is subject to this Subtopic.

The definition of a derivative under ASC 815 does not apply to stock-based compensation arrangements accounted for under ASC 718. Thus, for a grantor, share-based payment awards (e.g., options, warrants, restricted stock) issued to grantees (i.e., employees and nonemployees, including customers²⁹) in exchange for goods or services are exempt from ASC 815, at least initially. However, these contracts would likely be considered derivatives by the grantee.

ASC 718 does not apply to options granted to employees or nonemployees in unrestricted, publicly traded shares of an unrelated entity, so ASC 815 would generally govern such an award.

In accordance with ASC 718-10-35-10, a freestanding financial instrument issued to a grantee that is subject to ASC 718 will continue to be subject to ASC 718 (and would therefore not become subject to ASC 815 or other literature) unless the terms of the award are modified after:

- ▶ A holder is no longer an employee.
- ▶ A nonemployee's award vests, and the nonemployee is no longer providing goods or services.
- ▶ A grantee's award vests, and the grantee is no longer a customer.

In these instances, the awards become subject to other literature (generally the equity classification literature, ASC 815 or ASC 480) after the modification.

The accounting for stock-based compensation is discussed in detail in our FRD, *Share-based payment*.

²⁹ Entities are required to measure and classify share-based payment awards granted to a customer in a revenue arrangement that are not in exchange for a distinct good or service in accordance with ASC 718.

2.5.12 Contracts between an acquirer and a seller to enter into a business combination at a future date

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Contracts Involving an Entity's Own Equity

815-10-15-74

Notwithstanding the conditions of paragraphs 815-10-15-13 through 15-139, the reporting entity shall not consider the following contracts to be derivative instruments for purposes of this Subtopic:

- c. Any of the following contracts:
 1. A contract between an acquirer and a seller to enter into a business combination
 2. A contract to enter into an **acquisition by a not-for-profit entity**
 3. A contract between one or more NFPs to enter into a **merger of not-for-profit entities**.

A contract between an acquirer and a seller to enter into a business combination at a future date is exempt from fair value accounting under ASC 815, even if the contract met all of the characteristics of a derivative (which is unlikely).

Contingent consideration features in business combinations have to be analyzed to determine whether they meet the definition of a derivative under ASC 815. Under ASC 805, contingent consideration obligations that are an element of consideration transferred are recognized as of the acquisition date as part of the fair value transferred in exchange for the acquired business. Initial measurement of contingent consideration obligations under ASC 805 is based on fair value and takes into account the relevant circumstances and expectations that exist as of the acquisition date. Classification of contingent consideration obligations as either liabilities or equity is based on other applicable US GAAP, including ASC 815 and ASC 480.

Subsequent changes in the fair value of a contingent consideration obligation (or contingently returnable consideration) do not affect the acquisition-date fair value of the consideration transferred to the acquiree. Instead, subsequent changes in the fair value of a contingent consideration arrangement are considered to relate to post-combination events and changes in circumstances of the combined entity.³⁰ Thus, ASC 805 requires that changes in the value of contingent payment arrangements not affect the measurement of the consideration transferred on the acquisition date or the purchase price allocation but accounted for based on other applicable US GAAP, including ASC 815 and ASC 480.

The accounting for business combinations is discussed in our FRD, ***Business combinations***.

³⁰ ASC 805-30-35-1.

2.5.13 Physically settled forward contracts on a fixed number of an entity's own shares

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Contracts Involving an Entity's Own Equity

815-10-15-74

Notwithstanding the conditions of paragraphs 815-10-15-13 through 15-139, the reporting entity shall not consider the following contracts to be derivative instruments for purposes of this Subtopic:

- d. Forward contracts that require settlement by the reporting entity's delivery of cash in exchange for the acquisition of a fixed number of its equity shares (forward purchase contracts for the reporting entity's shares that require physical settlement) that are accounted for under paragraphs 480-10-30-3 through 30-5, 480-10-35-3, and 480-10-45-3.

ASC 480 provides that an entity that enters into a physically settled forward purchase contract for a fixed number of its own shares should account for the contract by recording a liability equal to the present value of the payment obligation with a concurrent charge to the shareholders' equity accounts. Accordingly, even though this contract may have all the characteristics of a derivative, its required accounting treatment is based on the obligation to settle the contract by physical delivery. As a result, this type of contract is exempt from the provisions of ASC 815.

2.5.14 Registration payment arrangements

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Registration Payment Arrangements

815-10-15-82

Registration payment arrangements within the scope of Subtopic 825-20 are not subject to the requirements of this Subtopic. The exception in this paragraph applies to both the issuer that accounts for the arrangement pursuant to that Subtopic and the counterparty.

ASC 825-20 provides guidance for issuers of registration payment arrangements and states that the contingent obligation to make future payments or otherwise transfer consideration under a registration payment arrangement, whether issued as a separate agreement or included as a provision of a financial instrument or other agreement, should be separately recognized and measured in accordance with ASC 450-20, *Contingencies – Loss Contingencies*, and, therefore, is excluded from the requirements of ASC 815. See section 5.11 in our FRDs, *Issuer's accounting for debt and equity financings (before the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)* and *Issuer's accounting for debt and equity financings (after the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)*, for further discussion of registration payment arrangements.

2.6 Special situations

2.6.1 Short sales

Short sales typically involve activities whereby the short seller (1) sells a security to the purchaser, (2) borrows a security from a lender, (3) delivers a borrowed security to the purchaser, (4) purchases a security from the market and (5) delivers the purchased security to the lender. Those five activities involve three separate contracts between the short seller and the purchaser, the short seller and the lender and the short seller and the market.

The contract that distinguishes a short sale is the one with the lender that involves borrowing a security and replacing that security by delivering an identical security (activities #2 and #5). Such a contract, which is the settlement of a short sale, has two of the three characteristics of a derivative instrument. The settlement is based on an underlying (price of the security) and a notional amount (face amount of the security or number of shares), and the settlement is made by delivery of a security that is readily convertible to cash.

However, the third characteristic, little or no initial net investment, is not present (the borrowed security is the lender's initial net investment in the contract). Therefore, the contract would not be considered a derivative instrument. The contracts related to selling a security to a purchaser (#1), delivering a [borrowed] security to a purchaser (#3) and purchasing a security from the market (#4) are regular-way securities transactions and, therefore, are excluded from the scope of ASC 815. However, if a forward purchase or sale is involved, and the contract does not qualify as a regular-way securities trade, the contract is subject to the requirements of ASC 815.

2.6.2 'Wash sales' involving repurchase agreements (updated September 2023)

Wash sales are transactions in which an entity sells a security and subsequently repurchases the same or substantially the same security at some future date (generally within a short period of time). Sale accounting under ASC 860 is generally not appropriate if, at the time the security is transferred, there is a concurrent agreement to repurchase the security.

In the unusual situation in which sale accounting is applied to the transferred security when a repurchase agreement exists, the obligation or right of the transferor to repurchase the transferred asset at a fixed or determinable price has to be analyzed to see if it meets the definition of a derivative. Assuming the initial transfer of assets (sale) will settle within the normal time frame for the security type, it represents a regular-way securities transaction that is excluded from the scope of ASC 815. However, the repurchase commitment (or right) is a forward contract that generally is treated as a derivative because it involves an underlying and a notional amount (the price of the security and its denomination), requires no initial net investment and typically requires delivery of a security that is readily convertible to cash.

2.6.3 Overallotment provisions (or 'greenshoes') (updated September 2023)

Many public debt and equity securities offerings contain features that provide the underwriter with the option to obtain more of the securities being sold (i.e., a written call option). These provisions permit the underwriter to fill orders slightly in excess of the planned amount of an offering to promote market efficiencies. These options are commonly referred to as "overallotment provisions" or "greenshoes," after the Green Shoe Manufacturing Company, which was the first company to include this type of feature in a public equity offering. Those features may be found in both equity and debt offerings.

Overallotment provisions have historically been used to accommodate potential investor demand in excess of the base offering amount, which may not be known until the issuance date. Therefore, the greenshoe provision permits the issuer to issue more securities without the time and expense of an additional filing. For example, an issuer may hope to issue \$100 million of securities but discovers at the issuance date that there is additional demand in the marketplace for the instruments. An overallotment provision permits additional securities to be sold at issuance.

The underwriter or initial investors often are also permitted to purchase additional securities at the offering price for a defined period subsequent to the closing date of the initial offering. The underwriter uses the greenshoe provision as a mechanism to facilitate market stabilization activities.

For example, if \$100 million of securities are sold into the market, the underwriter will often reserve the right with the issuer (or in some cases may commit) to enter into market transactions to buy and sell the securities to stabilize the market price for a period of time thereafter (typically 30 days). If the underwriter sells an additional \$10 million of securities (short position) and buys \$7 million (long position) during that period, the underwriter will exercise its over-allotment provision at its expiration date to cover its net \$3 million short position in the underlying securities.

Entities will sometimes include greenshoe provisions that permit the issuance manager (in some cases, an investment manager or large initial investor in a private offering) to obtain additional shares for its own purposes at a favorable price if the market price rises subsequent to the initial issuance. This approach has sometimes been referred to as a “manager’s option.” The exercise period for a manager’s option may be longer (45 or more days) than that of a more traditional greenshoe (usually 30 days or less).

Entities need to perform an analysis to determine the appropriate accounting for these options (e.g., as liabilities under ASC 480 or derivatives instruments under ASC 815). Refer to section 5.12 of our FRDs, *Issuer’s accounting for debt and equity financings (before the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity)* and *Issuer’s accounting for debt and equity financings (after the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity)*, for discussion of the accounting and financial reporting considerations related to these options.

2.7

Application of definition to common contracts

The following table, portions of which were originally published by the FASB, describes various contracts and addresses how ASC 815 would apply to them:

| Illustration 2-4: Analysis of whether common contracts meet the definition of a derivative | | | | | |
|---|--------------------|--|--------------------------------|---|---|
| Contract | Derivative? | Smaller initial investment | Underlying | Notional amount or payment provision | Net settlement |
| 1. Equity security | No | No – it requires initial net investment equal to the value of the security to purchase the security | N/A | N/A | No |
| 2. Debt security or loan | No | No – it requires initial net investment of the principal amount or (if purchased at a discount or premium) an amount calculated to yield a market rate of interest | N/A | N/A | No |
| 3. Lease | No | Yes | Yes – value of leased property | Yes – periodic rent | No – it requires payments equal to the value of the right to use property |

| Contract | Derivative? | Smaller initial investment | Underlying | Notional amount or payment provision | Net settlement |
|---|---|--|---|--|--|
| 4. Mortgage-backed security | No | No – it requires an initial net investment equal to the fair value of the item | Yes | Yes | No |
| 5. Option to purchase or sell real estate | No – because the underlying is the price of real estate, which is an excluded underlying as a unique nonfinancial asset that is not readily convertible to cash | N/A | N/A | N/A | N/A |
| 6. Option to purchase or sell an exchange-traded security | Yes | Yes – the option premium (which is significantly less than the value of the security itself) | Yes – price of the security | Yes – the specified number of securities | Yes – the underlying is readily convertible to cash |
| 7. Option to purchase or sell a security not traded on an exchange | No | Yes – the option premium | Yes – price of the security | Yes – the specified number of securities | No – the security is not readily convertible to cash (assumes cannot be net settled through a “cashless” exercise) |
| 8. Employee stock option on publicly traded shares | No – Even though the criteria in ASC 815 are met, for purposes of the issuer’s accounting, it is specifically excluded from ASC 815 by ASC 815-10-15-74(b) | Yes | Yes – price of security | Yes – the specified number of shares | Yes – if the underlying shares are readily convertible to cash |
| 9. Futures contract | Yes | Yes | Yes – price of underlying (e.g., commodity, bond or equity price) | Yes – a specified quantity, a face amount, an interest rate | Yes – a clearinghouse (a market mechanism) exists to facilitate net settlement |
| 10. Forward contract to purchase or sell exchange-traded securities | Yes | Yes | Yes – price of a security | Yes – a specified number of securities or a specified principal or face amount | Yes – the securities are readily convertible to cash |
| 11. Forward contract to purchase or sell manufactured goods | No – unless contract can be net settled (may qualify for the normal purchases and sales exception) | Yes | Yes – price of the manufactured goods | Yes – a specified quantity | No – unless contract contains symmetrical default provisions or goods are readily convertible to cash |
| 12. Forward contract to purchase or sell a commodity | Yes (may qualify for the normal purchases and sales exception) | Yes | Yes – price of the commodity | Yes – a specified quantity of the commodity | Yes – if it can be contractually net settled or commodity is readily convertible to cash |

| Contract | Derivative? | Smaller initial investment | Underlying | Notional amount or payment provision | Net settlement |
|---|--|-----------------------------------|--|---|--|
| 13. Interest rate swap | Yes | Yes | Yes – the specified interest rate index | Yes – a specified currency amount | Yes – one-way periodic net payments |
| 14. Currency swap | Yes | Yes | Yes – an exchange rate | Yes – a specified currency amount | Yes – if the currencies are readily convertible to the entity's functional currency or another form of net settlement is present |
| 15. Swaption (an option to enter into a swap) | Yes | Yes | Yes – value of the swap | Yes – the notional amount of the swap | Yes – it requires delivery of a derivative |
| 16. Stock purchase warrant for exchange-traded shares | Yes | Yes | Yes – price of stock | Yes – a specified number of shares | Yes – underlying stock is readily convertible to cash |
| 17. Casualty insurance contract | No – specifically excluded | N/A | N/A | N/A | N/A |
| 18. Traditional life insurance contract accounted for under ASC 944 | No – specifically excluded as the payment of death benefit is the result of an identifiable insurable event (death of the insured) instead of change in a variable | N/A | N/A | N/A | N/A |
| 19. Financial guarantee contract – payment occurs if a specific debtor fails to pay the guaranteed party, but the guarantor does not require that the guaranteed party have exposure to the debtor at the time the financial guarantee was executed | Yes – because the guaranteed party's direct exposure on the referenced asset must be present both at the inception of the contract and throughout its life in order to be eligible for the exception | Yes | Yes – the nonoccurrence of a scheduled payment (principal or interest) | Yes – the principal and/or scheduled interest payments of the debt subject to the guarantee | Yes – cash payment only in amount of loss |
| 20. Credit-indexed contract – payment occurs if a credit index (or the creditworthiness of a specified debtor or debtors) varies in a specified way | Yes | Yes | Yes – credit index or credit rating | Yes – a specified payment amount (which may vary depending on the degree of change or may be fixed) | Yes – payment only for change in fair value |
| 21. Royalty agreement | No – it is based on sales of one of the parties, which is an excluded underlying | N/A | N/A | N/A | N/A |

| Contract | Derivative? | Smaller initial investment | Underlying | Notional amount or payment provision | Net settlement |
|--|--|----------------------------|---------------------------------|--|----------------|
| 22. Non-exchange-traded contract – payment occurs if a weather variable occurs | No – it is based on a physical variable, specifically excluded | N/A | N/A | N/A | N/A |
| 23. Take or pay contract on items not readily convertible to cash | No | Yes | Yes – items underlying contract | Yes – quantities underlying the contract | No |
| 24. Registration payments arrangement | No – specifically excluded | N/A | N/A | N/A | N/A |

2.8 Illustration of key 'scope and definition' concepts and accompanying analysis

| Illustration 2-5: Application of key concepts to illustrative examples | | |
|--|---|---|
| Typical instrument or transaction | Analysis of significant issues | Key management considerations |
| Lack of a specified notional amount³¹ | | |
| Example 1: Company A enters into a forward contract with Company B to provide as many barrels of oil at a fixed price as are required by Company B to satisfy its needs during the next 12-month period. The contract meets all of the characteristics of a derivative under ASC 815 with the exception of a specified notional amount. | Although a notional amount is not explicitly specified in this contract, one may be able to be determined based on identifiable provisions in the contract (e.g., settlement and default provisions that quantify the penalty in the event of nonperformance) or in attachments, appendices or other legally binding side agreements. | If a notional amount can be determined, the contract is a derivative. In addition, it would not qualify as a normal purchase or sale if it contains an option with a defined notional amount not tied to the requirements of Company B. In this case, it may be able to be designated as a hedge of the forecasted purchase (or sale) of oil. |
| Example 2: Assume same fact pattern as in Example 1; however, the contract stipulates that Company B's requirement will not exceed 1,000 barrels. | Same analysis as Example 1. A maximum does not establish a notional amount. However, the notional amount – if one can be determined – cannot exceed 1,000 barrels. | Same considerations as in Example 1. |
| Example 3: Assume same fact pattern as in Example 1; however, the contract stipulates that Company B's requirement will be at least 600 barrels. | Same analysis as Example 1; however, the notional amount cannot be less than 600 barrels. A contract that specifies a minimum number of units has a notional amount at least equal to the minimum number of units. | Because there is a minimum notional amount, the contract would be subject to the requirements of ASC 815. If the portion to be transacted above 600 barrels is not determinable because it is based solely on Company B's requirements, the contract would be considered a derivative (with a notional amount of 600 barrels) that would be eligible for the NPNS scope exception. If Company B can "swing" into an additional notional amount greater than the minimum number of units and that additional amount is not dependent on Company B's requirements, the contract is not eligible for the normal purchases and sales exception. |

³¹ See ASC 815-10-15-92, 55-5 through 55-7 and 815-10-15-44 and 55-24 through 55-30.

| Typical instrument or transaction | Analysis of significant issues | Key management considerations |
|--|--|--|
| <p>Example 4: Assume same fact pattern as in Example 1; however, the contract stipulates that Company B's requirement will be at least 600 barrels and will not exceed 1,000 barrels.</p> | <p>Same analysis as in Examples 1 through 3; however, the notional amount cannot be less than 600 barrels and cannot exceed 1,000 barrels. A contract that specifies a minimum number of units has a notional amount at least equal to the minimum number of units.</p> | <p>Same considerations as in Examples 1 through 3. The presence of a maximum amount does not establish a notional amount but would provide an upper boundary to the extent that a notional amount can be determined.</p> |
| <p>Net settlement: Permitted or required by contractual terms</p> | | |
| <p>Example 5: Company A enters into a swap agreement to receive 50 megawatt hours (MwHr) of electricity at a fixed price from Company B and pay for the 50 MwHr of electricity at the daily quote for the applicable location as published by Megawatt Daily to Company B with monthly net cash settlement. Exchanges will occur over the next three months.</p> | <p>Under the swap arrangement, neither party is required to deliver the underlying commodity. The contract calls for net settlement of the swap arrangement (i.e., only the net price difference is transferred between the parties). In addition, the contract has a notional amount (50 MwHr) and no initial investment.</p> | <p>The contract meets the definition of a derivative and is subject to ASC 815. However, it could be designated as a hedge of the anticipated purchase (or sale) of electricity.</p> |
| <p>Example 6: Company A enters into a forward fixed-price contract to buy 20 tons of a specific grade of coal from Company B six months from now. The contract contains a symmetrical penalty for nonperformance based on changes in the price of coal (i.e., the party in a loss position is required to pay the party in a gain position if either party fails to perform). There is no market mechanism to facilitate net settlement and this specific grade of coal is not readily convertible to cash.</p> | <p>The nonperformance penalty is considered a net settlement provision under ASC 815 because the amount of the penalty is based on changes in the price of the items that are the subject of the contract, and it is symmetrical. In addition, the contract has an underlying and a notional amount (20 tons of coal), and there was no initial investment. (In contrast, a fixed penalty for nonperformance or an asymmetrical penalty provision, as is common in energy contracts, would not be considered a net settlement provision.)³²</p> | <p>The contract meets the definition of a derivative and is subject to ASC 815. However, if it contained only a fixed penalty, or both a variable penalty and a fixed incremental penalty that is sufficiently large to make the possibility of nonperformance remote, or if the default provision was asymmetrical (i.e., a provision that provides the defaulting party the obligation to compensate its counterparty's loss but not the right to demand any gain), the contract would not contain a net settlement provision and would not be considered a derivative subject to ASC 815-10-15-103.</p> |
| <p>Net settlement: Existence of a market mechanism</p> | | |
| <p>Example 7: Company A enters into fixed-price exchange-traded futures contracts to buy 20,000 MMBtu of natural gas to be delivered at Henry Hub each month during the next calendar year. The terms of the contracts (including the default provisions) do not provide for net settlement.</p> | <p>Even though the terms of the contracts do not provide for net settlement, the futures exchange represents a market mechanism that facilitates net settlement of the futures contracts. The futures exchange stands ready to relieve an entity of all rights and obligations under its contracts and to liquidate the net position without incurring significant transaction costs. Therefore, the contracts have a net settlement provision. In addition, they have an underlying and a notional and a small initial investment.</p> | <p>The contracts are subject to ASC 815. They are not eligible for the NPNS scope exception, unless Company A intends to physically settle the futures contracts. Futures contracts that will not be physically settled could be designated as a hedge of the forecasted purchase (or sale) of the natural gas.</p> |

³² See ASC 815-10-15-103 and 55-10 through 55-18.

| Typical instrument or transaction | Analysis of significant issues | Key management considerations |
|---|---|--|
| <p>Example 8: Company A enters into a five-year commodity supply contract with a supplier that requires monthly delivery of specified quantities. Although a spot market exists at the inception of the contract, the forward market only exists for the next 12 months.</p> | <p>The contract has a notional and an underlying and a small initial investment. In addition, the commodity is readily convertible to cash because of an active spot market that could rapidly absorb the quantities specified for monthly delivery.³³ Note that the contract in this example does not meet the market mechanism net settlement characteristic at inception because a market mechanism would not likely exist to net settle the entire five-year contract.</p> | <p>The contract meets the definition of a derivative under ASC 815 because the commodity is readily convertible to cash when it is delivered. The evaluation of whether a contract meets the net settlement characteristics of the existence of a market mechanism and readily convertible to cash is an ongoing assessment that must be made throughout the life of each contract.³⁴</p> |
| Net settlement: Readily convertible to cash | | |
| <p>Example 9: In exchange for services provided, Company A issues Company B warrants to purchase its stock. The stock is not yet publicly traded (pre-IPO).</p> | <p>The stock purchase warrants do not call for the delivery of an asset that is readily convertible to cash. In addition, there is no opportunity to net settle the stock nor is there a market mechanism to facilitate net settlement.</p> | <p>The stock purchase warrants do not meet the definition of a derivative under ASC 815 for either Company A or Company B.</p> |
| <p>Example 10: In exchange for services provided, Company A issues Company B warrants to purchase its stock. The stock is publicly traded (post-IPO).</p> | <p>The stock purchase warrants call for the delivery of an asset that is readily convertible to cash because the stock is publicly traded on an exchange. As a result, the contract meets the net settlement criteria. In addition, the contract has an underlying and a notional (the stock) and a small initial investment (presumably the value of the options).</p> | <p>The stock purchase warrants meet the definition of a derivative and, for Company B, are subject to ASC 815. The warrants may not be subject to ASC 815 for Company A because of specific exceptions for share-based payments and because the warrants would be classified in stockholders' equity.</p> |
| <p>Example 11: Same as Example 10, except that Company A places restrictions on Company B, such that the shares received upon exercise cannot be sold by Company B for a period of at least 32 days after the warrants are exercised.</p> | <p>The stock purchase warrants call for the delivery of an asset that is convertible to cash, but not readily so, due to the 32-day trading restriction placed on the shares by the issuer. In addition, there is not a market mechanism to facilitate net settlement of the warrants, nor do the warrants provide for net settlement.</p> | <p>The stock purchase warrants do not meet the definition of a derivative because they cannot be net settled.</p> |

³³ See ASC 815-10-55-111 through 55-117.

³⁴ See ASC 815-10-15-3, 25-2 and 25-3, 30-3, 45-8, 55-84 through 55-89, 815-20-55-44A through 55-44C.

| Typical instrument or transaction | Analysis of significant issues | Key management considerations |
|---|--|--|
| <p>Example 12: Same as Example 10, except that the stock purchase warrants received by Company B, if exercised, would result in Company B owning a large block of the entire outstanding shares of Company A, and Company B must exercise the warrants simultaneously as a unit. Company B will not be able to liquidate the entire block of shares rapidly without significantly affecting the price of the shares.</p> | <p>Since the stock purchase warrants must be exercised as a block, Company B would receive shares in Company A that represent a sizable position relative to the total investor market for Company A shares that could not be sold without significantly affecting the price of the shares. Therefore, the shares are not readily convertible to cash, and none of the other forms of net settlement exist.</p> | <p>The stock purchase warrants do not meet the definition of a derivative because they do not have the net settlement characteristic.</p> |
| <p>Example 13: Same as Example 12, except that the stock purchase warrants can be incrementally exercised at different times if Company B so chooses. The shares received on each exercise could be liquidated rapidly without significantly affecting the price of the shares. There are no trading restrictions on Company B after the warrants are exercised.</p> | <p>Company B can exercise the stock purchase warrants in small enough increments that the shares can then be immediately sold without significantly affecting the share price. Therefore, the warrants have the net settlement characteristic. In addition, the warrants have an underlying and a notional (the shares) and a small initial value.</p> | <p>The stock purchase warrants meet the definition of a derivative and should be accounted for under ASC 815 by Company B. The warrants may not be subject to ASC 815 by Company A because of specific exceptions for share-based payments and because the warrants would be classified in stockholders' equity.</p> |
| <p>Normal purchases and normal sales³⁵</p> | | |
| <p>Example 14: An electric utility has a forward contract to purchase electricity at a price tied to a natural gas index. The utility generates electricity through water-based (hydroelectric) means. Overall, market dynamics keep the price of electricity correlated with the price of natural gas because it represents an important factor in the production of electricity in the economy as a whole. The contract has all the characteristics of a derivative.</p> | <p>The primary factor in the generation of the electricity sold under this particular contract is not the consumption of natural gas. However, because the natural gas adjustment factor is not extraneous to changes in the fair value of electricity (due to characteristics of the electricity market as a whole), the pricing adjustment is deemed clearly and closely related to the electricity being purchased, provided that the magnitude and direction of the adjustment are relevant to the value of electricity.</p> | <p>The contract is eligible for the NPNS scope exception. However, other factors, including the probability of being settled with gross physical delivery of the commodity, have to be documented and evaluated in determining whether the contract itself qualifies for the NPNS scope exception.</p> |
| <p>Example 15: A hog farmer enters into forward sales contracts for hogs in which the sales price is tied to corn prices. Corn is used by the farmer to feed its hogs. The sales contract has all of the characteristics of a derivative.</p> | <p>A certain quantity of corn is used to feed hogs until they are sold in the market. Accordingly, the cost of corn is a component of the cost of the hog inventory. As a result, the pricing adjustment wouldn't be considered extraneous to the changes in the market price of hogs, provided that it is for the appropriate magnitude and direction, and therefore, would not disqualify the contract from being eligible to receive the NPNS scope exception.</p> | <p>The contracts are eligible for the NPNS scope exception. Other considerations are the same as Example 14.</p> |

³⁵ See ASC 815-10-15-22 through 15-51.

| Typical instrument or transaction | Analysis of significant issues | Key management considerations |
|---|---|--|
| <p>Example 16: A paper company enters into forward sales contracts, in which the sales price is tied to the consumer price index (CPI).</p> | <p>The CPI is a broad market index that reflects the general level of price changes of certain items in the economy as a whole and is not a direct factor in the production of paper. However, its presence as an adjustment feature is intended to make the ultimate transaction price more reflective of the pricing conditions at the time the paper is sold. Accordingly, provided that in the specific facts and circumstances, it is for an appropriate magnitude and direction designed to reflect inflation's impact on the final transaction price, a CPI-based price adjustment would not be considered extraneous to change the fair value of the paper that is an underlying to the contract and would not disqualify the contract from being considered a normal purchase or sale.</p> | <p>The contracts are eligible for the NPNS scope exception. Other considerations are the same as Example 14.</p> |
| <p>Example 17: An entity has negotiated purchase contracts for the main ingredient, high fructose corn syrup, used in a product it makes. The price in those purchase contracts is indexed to corn futures.</p> | <p>Provided that the adjustment is for an appropriate magnitude and direction, the change in the price of corn would not be considered extraneous to the cost of the contracted high fructose corn syrup and would not disqualify the contract from being considered a normal purchase or sale.</p> | <p>The contracts are eligible for the NPNS scope exception. Other considerations are the same as Example 14.</p> |
| <p>Example 18: An entity enters into forward purchase contracts for high fructose corn syrup that it uses to manufacture beverages. The purchase price is composed of (1) a variable sugar cane index plus (2) certain fixed charges (comprising fixed-cost components of the end fructose product) plus (3) fixed shipping charges per unit.</p> | <p>If the magnitude and direction of the adjustment for changes in the sugar cane index are appropriate and the adjustment is not extraneous to the cost or fair value of the contracted high fructose corn syrup, the adjustment would not disqualify the contract from being considered a normal purchase or sale.</p> | <p>The contracts are eligible for the NPNS scope exception. Other considerations are the same as Example 14.</p> |
| <p>Example 19: An agricultural processor enters into a forward sales contract, which has all the characteristics of a derivative, in which the sales price of soybean meal is tied to changes in the S&P 500 index. To fund the purchase of the soybeans, the entity borrows on a variable-rate line of credit that the bank requires to be collateralized by the processor's diversified equity investment portfolio.</p> | <p>Changes in the S&P 500 are extraneous (not pertinent) to the changes in the cost or fair value of soybean meal. The fact that the entity may have to post more collateral for the line of credit if its equity investment portfolio deteriorates is not related to the cost or fair value of soybean meal. Accordingly, the underlying in the price adjustment feature is not clearly and closely related to the asset being sold.</p> | <p>The contracts are not eligible for the NPNS scope exception.</p> |

| Typical instrument or transaction | Analysis of significant issues | Key management considerations |
|--|--|--|
| <p>Example 20: An entity enters into a forward contract, which has all the characteristics of a derivative, to purchase on a specified date a specified quantity of a raw material that is readily convertible to cash. The purchase price is the current market price on the date of purchase, not to exceed a specified maximum price (a cap), nor to be less than a specified minimum price (a floor).</p> | <p>The optionality feature affects the price to be paid for the raw material but not the quantity that can be purchased.</p> | <p>The contract is eligible for the NPNS scope exception. Other considerations are the same as Example 14.</p> |
| <p>Example 21: An entity enters into a forward contract, which has all the characteristics of a derivative, to purchase on a specified date a specified quantity of a raw material. The contract's purchase price is a fixed amount per unit. However, if the market price on the date of purchase has fallen below the fixed purchase price, the entity is not obligated to purchase the raw material.</p> | <p>The optionality feature (lack of an obligation to purchase the raw material if prices fall) modifies the quantity to be delivered; thus, the contract is an option contract for which it would not be probable that physical delivery will occur.</p> | <p>The contract is not eligible for the NPNS scope exception. The option contract may qualify as a cash flow hedge if it is probable that the entity will acquire the raw material (from some source) even if its market price declines. (See chapter 6.)</p> |
| <p>Example 22: An entity enters into a forward contract, which has all the characteristics of a derivative that obligates it to purchase 100,000 barrels of crude oil at \$55/barrel and the right, but not the obligation, to purchase up to an additional 50,000 barrels at \$57/barrel for delivery at a specified date in the future.</p> | <p>The optionality feature modifies the quantity to be delivered.</p> | <p>The contract is not eligible for the NPNS scope exception. The entity could instead enter into two legal contracts: a regular forward contract for 100,000 barrels and a freestanding option contract to obtain up to 50,000 barrels to achieve a different result. In that case, the forward contract could be eligible for the NPNS scope exception, and only the option contract would have to be accounted for as a derivative.</p> |

3 Embedded and compound derivatives

3.1 Overview

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Overview and Background

General

815-15-05-1

Contracts that do not in their entirety meet the definition of a **derivative instrument** (see paragraphs 815-10-15-83 through 15-139), such as bonds, insurance policies, and leases, may contain **embedded derivatives**. The effect of embedding a derivative instrument in another type of contract (the host contract) is that some or all of the cash flows or other exchanges that otherwise would be required by the host contract, whether unconditional or contingent on the occurrence of a specified event, will be modified based on one or more **underlyings**.

The FASB considers it important to keep an entity from avoiding the recognition and measurement requirements of ASC 815 by embedding a derivative instrument in a nonderivative financial instrument or other contract. Therefore, certain embedded derivatives are included in the scope of ASC 815. Instruments that contain embedded derivatives are referred to as hybrid instruments under ASC 815. A hybrid instrument is viewed as consisting of a “host contract” into which one or more derivative terms have been embedded. This chapter discusses how to identify those embedded derivatives that must be accounted for separately from the “host contract,” as well as those that are not subject to ASC 815.

3.2 What is an embedded derivative?

ASC 815 defines an embedded derivative as implicit or explicit terms within a contract (that does not in its entirety meet the definition of a derivative instrument) that affect in a manner similar to a derivative instrument some or all of the cash flows or the value of other exchanges required by the contract. More simply, an embedded derivative is a derivative within another contract that is not a derivative. For example, a debt instrument that has interest payments that fluctuate with the changes in Standard & Poor’s (S&P) 500 index (i.e., an equity-indexed note) would be considered a debt instrument with an embedded derivative.

ASC 815 requires that in certain circumstances embedded derivatives be bifurcated (separated) from the host contract and accounted for separately. Embedded derivatives that are required to be bifurcated and accounted for separately are treated in the same manner as freestanding derivatives under ASC 815. ASC 815-15-30-2 and 35-3 require the embedded derivative to be recorded at fair value, with the difference between the basis of the hybrid financial instrument and the fair value of the embedded derivative recorded as the carrying value of the host contract. Therefore, the allocation method described in ASC 815-15-30-2 would not result in recognition of a Day 1 gain or loss on a bifurcated derivative. Any potential Day 1 gains or losses associated with the bifurcated derivative would not be recognized immediately in earnings but rather included in the basis of the host contract. Depending on the nature of the host contract, the gain (or loss) may be amortized into earnings over the life of the host contract (e.g., host is a debt instrument). ASC 820 did not amend ASC 815-15-30-2 and 35-3.³⁶

³⁶ If an entity elects to fair value the entire hybrid financial instrument under ASC 815-15 (see discussion in section 3.13) or ASC 825-10 and, therefore, is not required to bifurcate the embedded derivative, a Day 1 gain or loss may be recognized on the hybrid instrument if the transaction price is determined not to represent the fair value of the entire instrument. However, it is not typical for a transaction price to be significantly different from a fair value premised on exit price.

In determining whether a hybrid instrument contains an embedded derivative that warrants separate accounting, ASC 815 focuses on whether the economic characteristics and risks of the embedded derivative are clearly and closely related to economic characteristics and risks of the host contract. If the host contract encompasses a residual interest in an entity, its economic characteristics and risks should be considered those of an equity instrument and an embedded derivative would need to possess principally characteristics of that equity to be considered clearly and closely related to the host contract. However, most commonly, a financial instrument host contract will not embody a claim to the residual interest in an entity and, thus, the economic characteristics and risks of the host contract would be considered that of a debt instrument.

Additionally, in evaluating whether an embedded derivative must be bifurcated and accounted for separately from the host instrument, one must consider the criteria previously discussed in chapter 2, including the four characteristics of a derivative (i.e., underlying, notional amount, no initial net investment and net settlement), as well as the various exceptions (e.g., regular-way security trades, NPNS).³⁷ The derivative-like features embedded in a nonderivative instrument would be considered a derivative under ASC 815 only if such features would meet the definition of a derivative, considering all the special exceptions, if those features alone were embodied in a freestanding contract. However, features embedded in a host instrument will not have to be bifurcated and accounted for separately from the host if they are clearly and closely related to the host. In addition, if the entire hybrid instrument is carried at fair value with changes in value included in earnings, ASC 815 does not require separate accounting for any embedded derivatives.

3.2.1 Exceptions

It is important to remember that not all embedded derivatives have to be bifurcated and accounted for separately. A call option within a fixed-rate bond is an example of an embedded derivative that typically does not require bifurcation and separate accounting. The host contract – the bond – is not a derivative because it requires an initial net investment on the part of the bondholder. However, the call option is an embedded derivative. The underlyings to the call option are market interest rates and the issuer's credit spread. If the issuer's borrowing rate decreases, the entity will call the debt so that it can refinance its debt at lower rates. The fair value of the embedded derivative increases as interest rates fall and decreases as interest rates rise. The presence of an embedded derivative also affects the fair value of the entire contract. However, because the fair values of both components of the hybrid contract are related to the same underlying economic characteristic – market interest rates for the issuer – the embedded call option is viewed as clearly and closely related to the bond host, and therefore the option is not required to be bifurcated and accounted for separately.

Alternatively, consider an equity-indexed note for which the embedded derivative is required to be bifurcated and accounted for separately under ASC 815. The host contract is an interest-bearing debt instrument, and an option or a forward contract on the S&P 500 index is embedded in the instrument. The fair value of the embedded option or forward fluctuates as the underlying S&P 500 index fluctuates. Therefore, because the host contract is a debt instrument and the embedded derivative has equity characteristics, the embedded derivative would not be considered clearly and closely related to the host contract.

³⁷ It should be noted that the initial net investment criterion from chapter 2 has a special interpretation related to embedded derivatives discussed later in this chapter.

How we see it

The provisions related to embedded derivatives are one of the areas that cause entities considerable difficulty. Entities should have controls in place that ensure all new contracts are evaluated for potential embedded derivatives.

The following are characteristics of potential embedded derivatives that are often overlooked:

- ▶ Renewal, extension, cancellation and prepayment options in debt arrangements
- ▶ Contracts that can be settled through multiple means (e.g., gross physical, net shares, cash)
- ▶ Transactions and contracts (e.g., forward purchase and sale contracts) denominated in or referenced to a foreign currency that is not characteristic of either party to the transaction
- ▶ Investments in convertible, exchangeable or indexed debt
- ▶ “If ... then” provisions within contracts, such as:
 - ▶ A contract that requires additional payments if a particular index, such as an interest rate, equity or foreign currency index, moves above a predetermined cap or floor
 - ▶ A contract for which the cash flows can fluctuate based on the occurrence or nonoccurrence of a specified event, such as a change in control
 - ▶ A contract for which the cash flows can fluctuate based on a sliding scale or index

Entities should pay particular attention to financial instrument contracts (e.g., notes, bonds, preferred stock) because, by their nature, many of these contracts may meet the net settlement criterion (i.e., they are readily convertible to cash). However, embedded derivatives may also be present in leases, inventory purchase contracts, service contracts, insurance contracts or other unsuspecting locations.

While an embedded derivative is a derivative within a contract that is not a derivative, a compound derivative (discussed in more detail later in section 3.11) is a derivative contract containing another embedded derivative. An example of a compound derivative is a swap agreement that can be canceled by one party prior to the expiration date. There is no nonderivative host instrument; instead, a swap and an option to cancel are combined into a derivative instrument, creating a compound derivative. ASC 815 does not permit the bifurcation and separate accounting for the components of a compound derivative. Therefore, it is important to understand the subtle difference between a compound and embedded derivative up front.

3.3

Criteria for bifurcation of embedded derivatives

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

General

815-15-25-1

An **embedded derivative** shall be separated from the host contract and accounted for as a **derivative instrument** pursuant to Subtopic 815-10 if and only if all of the following criteria are met:

- a. The economic characteristics and risks of the embedded derivative are not clearly and closely related to the economic characteristics and risks of the host contract.

- b. The **hybrid instrument** is not remeasured at **fair value** under otherwise applicable generally accepted accounting principles (GAAP) with changes in fair value reported in earnings as they occur.
- c. A separate instrument with the same terms as the embedded derivative would, pursuant to Section 815-10-15, be a derivative instrument subject to the requirements of Subtopic 815-10 and this Subtopic. (The initial net investment for the hybrid instrument shall not be considered to be the initial net investment for the embedded derivative.)

Embedded derivatives should be separated from their host nonderivative contracts and accounted for as derivative instruments pursuant to ASC 815 if, and only if, *each* of the three criteria above is met. These criteria are discussed in more detail in the following sections.

The FASB has concluded that the initial bifurcation of an embedded derivative from the host contract should never result in a total fair value for the components added together that differs from the hybrid instrument's fair value as a whole. Additionally, when an embedded derivative is bifurcated from the host, the embedded derivative generally should be valued at fair value first, and the host would be allocated the remainder of the difference between the fair value of the hybrid instrument and the fair value of the embedded derivative.³⁸

How we see it

Some market participants have raised questions about how the embedded derivative guidance in ASC 815 should be applied to new contracts that reference SOFR, including whether certain interest rate reset features in these contracts would meet the definition of an embedded derivative requiring bifurcation.

In response to an inquiry from the Alternative Reference Rates Committee (ARRC), the Securities and Exchange Commission (SEC) staff stated that it would not object to the ARRC's view that the various SOFR interest rate reset features described in the inquiry were terms of the host contract and did not represent embedded derivatives that required further assessment of bifurcation under the embedded derivatives guidance.³⁹

The ARRC's inquiry included interest rate reset conventions based on Term SOFR (i.e., SOFR for a specified period of time greater than overnight), compounded SOFR "in-arrears," compounded SOFR "in-advance" and average SOFR "in-advance." The ARRC expressed the view that these interest rate reset features are normal market conventions that could be viewed as terms of the host contract and, therefore, did not represent embedded derivatives requiring further assessment (i.e., they would not be subject to the "double-double" test discussed in section 3.3.1 below).

The ARRC highlighted that these SOFR-based reset features are intended to provide a market-based solution to the discontinuation of LIBOR and are not meant to provide leveraged returns to investors. In addition, the ARRC noted that certain of the features will be required for specific products because, under consumer protection laws, advance notice of interest rate changes must be provided to borrowers.

The SEC staff said its conclusion was based on current expectations of how markets for certain SOFR-based products will develop and noted that entities would need to evaluate any new interest rate features as markets continue to develop and changes in factors or circumstances occur.

³⁸ See ASC 815-15-30-2 and ASC 815-15-35-3.

³⁹ See remarks by Jillian Pearce at the 2020 AICPA National Conference on Current SEC and PCAOB Developments.

3.3.1 Criterion no. 1 – ‘Clearly and closely related’

If the economic characteristics and risks of the embedded derivative are clearly and closely related to the economic characteristics and risks of the host contract, ASC 815 would not require bifurcation of the derivative (except as described below), and there is no separate accounting for the derivative. The accounting for the instrument as a whole prevails.

On the other hand, when the economic characteristics and risks of the embedded derivative are not clearly and closely related to the economic characteristics and risks of the host instrument, the embedded derivative should be separated and accounted for as a derivative instrument under ASC 815.

The clearly and closely related evaluation can be challenging, though ASC 815-15-25-16 through 25-51 provide a number of examples that can assist preparers in making the determination. Very simply, the “clearly and closely related” evaluation generally refers to a comparison of the nature of the underlying in the embedded derivative to the host instrument. In other words, the underlying, which causes the value of the derivative to fluctuate, must be related to the inherent economic nature of the host instrument to be considered clearly and closely related.

For example, if the host contract is a debt instrument (or a share that is deemed to have a debt host), the embedded derivative’s underlying must relate to economic characteristics and risks that affect debt, such as inflation, credit considerations or interest rates.

Therefore, a note with interest payments tied to changes in the debtor’s credit rating would meet the “clearly and closely related” test and would not have to be accounted for as a derivative because interest rates are closely aligned with the credit rating of the debtor.

Similarly, typical call and put features embedded in debt instruments issued at or near their face amount generally will not be subject to ASC 815 because the changes in value of the call and put features are clearly and closely related to market interest rate changes, just like the bond itself. (See further discussion of embedded calls and puts in debt instruments in section 3.10.3.)

Alternatively, in the case of an equity indexed note (e.g., principal repayment indexed to the S&P 500 index), changes in the stock indexes are not clearly and closely related to the interest rate-based economic characteristics of debt, so the embedded derivative (e.g., the S&P forward or option) would have to be bifurcated and separately accounted for under ASC 815.

As a “boundary” to the “clearly and closely related” criterion, the FASB provided some additional guidance in ASC 815-15-25-26 through 25-29 for interest-rate derivatives embedded in debt instruments. Although these items, on the surface, appear to pass the “clearly and closely related” test, ASC 815 provides criteria when such embedded derivatives would not be considered clearly and closely related. ASC 815-15-25-26 indicates that if the embedded derivative’s *only* underlying is interest-rate related and it can alter a net interest payment that otherwise would be paid or received on an interest-bearing host contract, the embedded derivative meets the “clearly and closely related” criterion unless one of the following conditions is present:

- ▶ The hybrid instrument could be *contractually settled* in such a way that the investor would not recover *substantially all* of its initial recorded investment (e.g., inverse floater bonds and leveraged inverse floater bonds – see chart in section 3.9 for further discussion of these instruments).
- ▶ The embedded derivative meets both of the following conditions (double/double test):
 - (1) There is a possible future interest rate scenario (even though it may be remote) under which the embedded derivative would at least double the investor’s initial rate of return on the host contract.

- (2) For any of the possible interest rate scenarios under which the investor's initial rate of return on the host contract would be doubled (as discussed in (1) above), the embedded derivative would at the same time result in a rate of return that is at least twice what otherwise would be the then-current market return (under the relevant future interest rate scenario) for a contract that has the same terms as the host contract and that involves a debtor with a credit quality similar to the issuer's credit quality at inception.

Though the conditions above are stated in terms of the investor, the existence of either of the conditions for the investor results in the embedded derivative not being clearly and closely related to the host for both parties to the contract. Note that the first criterion includes two important terms: "contractually settled" and "substantially all." The words "contractually settled" in this criterion mean that the instrument could be legitimately settled in compliance with all provisions of the instrument in such a way that the investor would not recover its initial recorded investment. The possibility that recovery may not occur due to credit or default risk is not at issue. The words "substantially all" in this criterion imply that if the possibility is only that a slight negative yield or an insignificant failure to recover principal might occur is not enough for the embedded derivative to fail the "clearly and closely related" criterion.

The FASB has concluded that this first criterion applies only in a situation where the investor (creditor) could be forced by the contractual terms of the hybrid instrument (i.e., by the issuer) to accept settlement at an amount that causes the investor not to recover substantially all of its initial recorded investment.⁴⁰ However, if the *investor* has the option to settle prior to maturity in a manner in which it would not recover substantially all of its investment (e.g., because of market interest rate fluctuations), the "clearly and closely related" presumption would not be invalidated.

To meet the second criterion, the embedded derivative must be able to double the initial rate of return *and* result in a rate of return that is at least twice what would otherwise be expected for a similar host contract at the time it takes effect. If it only meets one but not the other part of this condition, the embedded derivative is still considered to be clearly and closely related to the host and is not required to be bifurcated and accounted for separately.

For the second part of the condition to be present, the phrase "investor's initial rate of return" refers to the yield at issuance of the host contract (e.g., a plain-vanilla bond without optionality). If at issuance the host contract is earning a yield of 8.5% and the terms of the hybrid contract are such that the investor's yield over the life of the contract could exceed 17%, such a contract would violate the first part of this condition. If it were possible for the yield of this same contract to increase to double the market yield during the life of the instrument, the "boundary" of the "clearly and closely related" concept would be violated. Many contracts violate the first part of the condition (double the initial return) but not the second part (double the then-current market return).

How we see it

In the determination of whether the "initial rate of return" of the embedded derivative would be at least twice what would be expected for each of the possible interest rate scenarios, we do not believe that an entity must consider whether the rate on the debt host is fixed or floating. Whether an entity expects to issue fixed or floating rate debt, the *initial rate of return* estimate should be the same because the entity is looking to the same forward yield curve for the expected term of the debt. By using the term "initial rate of return" rather than "initial return," we believe the FASB was focusing on the initial forward curve for a particular issuer off of which the debt instrument was constructed. This approach relieves the pressure from the determination of whether the debt host is a floating-rate host or a fixed-rate host, which can sometimes be difficult to determine in exotic hybrid instruments.

⁴⁰ See ASC 815-15-25-29 and 55-128 through 55-136.

Others believe that the initial rate of return on a floating rate host instrument is merely the observable floating rate on Day 1. As noted above, we disagree and believe that the observable floating rate on Day 1 is the “initial return,” not the “initial rate of return.” The FASB staff has never formally commented as to which view about the “initial rate of return” is intended, and at one time, we understand there was disagreement among the staff, explaining why the FASB has never illustrated the application of ASC 815-15-25-26 through 25-29.

The FASB has concluded that this second criterion does not apply to an embedded call option in a hybrid instrument containing a debt host contract if the right to accelerate the settlement of the debt can be exercised only by the debtor (issuer/borrower).⁴¹ This guidance does not affect the application of the first criterion or to other embedded derivative features that may be present in the same hybrid instrument.

The conditions of the double/double test were intended to apply only to situations that meet the two conditions and for which the investor has the unilateral ability to obtain the right to receive the high rate of return specified in those tests. When the embedded derivative is an option rather than a forward contract, it is important to analyze whether the investor is the holder of that option. For an embedded call option, the issuer or borrower (and not the investor) is the holder, and thus only the issuer (borrower) can exercise the option. Consequently, the investor does not have the unilateral ability to obtain the right to receive the high rate of return, which is contingent on the issuer’s exercise of the embedded call option.

It would be unusual for the contractual terms of a debt instrument, absent an embedded derivative, to result in the investor failing to recover substantially all of its initial investment or to achieve an abnormally large yield (e.g., 25% or more). Thus, if the embedded derivative could cause either one of these results to occur, it may not be clearly and closely related.

3.3.1.1 Illustration of the double/double test

An example of how we believe the double/double test would result in bifurcation is best illustrated by contemplating a “step-up” bond – one that launches with an introductory below-market yield but includes a reset feature that could double both the initial rate of return and the *then-current market return* for those scenarios in which the initial rate of return would be doubled.

Consider a five-year bond that initially pays a 2% coupon, but at the end of Year 2, resets to pay 2.5 times six-month Term SOFR minus 3% (or 300 bps) for the three remaining years (with a floor of 0%), resetting every six months during that remaining period. The issuer can borrow for five years at the five-year Term SOFR swap rate plus 1.00%. The issuer can borrow for three years at the three-year Term SOFR rate plus 0.90%. At origin, the five-year Term SOFR swap rate is 4%.

This instrument would first be analyzed to see whether the embedded derivative should be analyzed under the double/double test as follows:

The only underlying is interest rate or interest rate index (such as an interest rate cap or an interest rate collar) that alters net interest payments that otherwise would be paid or received on an interest-bearing host contract that is considered a debt instrument.

Condition met: The host contract is a debt instrument by its legal terms (i.e., legally it is not an equity instrument, though legal equity instruments accounted for as debt also would be included in this category). The step-up feature does alter the net interest payments. Finally, the only underlying that affects the feature is interest rate related. There is no contingency (e.g., step-up only if the issuer files for an IPO) or other underlying that affects the feature. As a result, the feature should be evaluated under the double/double test.

⁴¹ See ASC 815-15-25-37 through 25-39 and 55-25.

This instrument would be analyzed under the double/double test as follows to see whether the embedded derivative meets both of the following conditions:

- (1) *There is a possible future interest rate scenario (even though the possibility may be remote) under which the embedded derivative would at least double the investor's initial rate of return on the host contract.*

Condition met: The host contract is a bullet maturity instrument that pays a fixed coupon equal to the issuer's five-year borrowing rate. Therefore, the initial rate of return for the five-year horizon is 5.00%, equal to the original five-year Term SOFR swap rate of 4.00% plus the issuer's specific credit spread for a five-year borrowing of 1.00%. It is mathematically possible for the investor's initial rate of return to be doubled going forward by the embedded derivative feature if six-month Term SOFR at the end of Year 2 is at least 5.2% or higher for the remaining term. Coupon would increase to 10.0% [(2.5 x 5.2%) – 3.00%] which is double the initial rate of return of 5.00%.

- (2) *For any of the possible interest rate scenarios under which the investor's initial rate of return on the host contract would be doubled, the embedded derivative would at the same time result in a rate of return that is at least twice what otherwise would be the then-current market return (under the relevant future interest rate scenario) for a contract that has the same terms as the host contract and that involves a debtor with a credit quality similar to the issuer's credit quality at inception.*

Condition met: If at the end of Year 2 six-month Term SOFR is at least 5.2%, then assuming for ease of analysis that the SOFR curve is flat, the three-year Term SOFR swap rate at the same time would also be 5.2%. The investor's *then-current market return* for a contract that has the same terms as the host contract (three remaining years) and that involves a debtor with a credit quality similar to the issuer's credit quality at inception (0.90% credit spread for a three-year borrowing) would be 6.1% (equal to the three-year Term SOFR swap rate of 5.2% plus the original three-year credit spread of 0.9%). The new rate of return would only be 10.0%, which is not double 6.1%. However, the analysis is not complete; it must contemplate even higher levels of SOFR, much like the table below (assumes a flat yield curve):

| New 3-year Term SOFR swap rate | "At inception" 3-year credit spread | Then-current market return of host | New rate of return |
|---------------------------------------|--|---|---------------------------|
| 5.2% | 0.9% | 6.1% | 10.0% |
| 8.0% | 0.9% | 8.9% | 17.0% |
| 9.6% | 0.9% | 10.5% | 21.0% |
| 10.0% | 0.9% | 10.9% | 22.0% |

For levels where the new three-year Term SOFR swap rate is 9.6% or above, however unlikely that might be, Condition #2 would be met. The insertion of the leverage feature in the coupon reset (2.5 times six-month Term SOFR) creates this mathematical possibility.

3.3.2 Criterion no. 2 – Hybrid instrument is already remeasured at fair value through earnings

The second provision for determining whether an embedded derivative must be bifurcated from the host contract and accounted for separately as a derivative instrument is the requirement that the hybrid instrument is not already being recognized on the balance sheet at fair value with changes in fair value being reported in earnings. The FASB believes that in this case, there is no need to bifurcate the embedded derivative from the host. This provision is particularly advantageous for entities that have trading portfolios and entities that are required to account for investments at fair value with changes in fair value reported in earnings (e.g., investment companies, employee benefit plans, broker-dealers). However, this exception for bifurcation does not apply to available-for-sale debt securities because changes in fair value are recorded in OCI, not earnings.

If an entity elects to apply the fair value option in either ASC 825 or ASC 815-15 to a financial liability, it must present the portion of the total change in fair value resulting from instrument-specific credit risk separately in AOCI. However, this presentation does not change the bifurcation considerations noted above (i.e., the financial liability is still deemed to be measured at fair value through earnings).

How we see it

ASC 815-15-25-4 permits both issuers of and investors in hybrid financial instruments that would otherwise require bifurcation of an embedded derivative to elect at acquisition, issuance or a new basis event to carry such instrument at fair value with all changes in fair value reported in earnings. ASC 825-10 expands and permits the fair value option to nearly all hybrid financial instruments, including those that would *not* otherwise require bifurcation of an embedded derivative, rendering the ASC 815-15-25-4 limitation effectively moot.

3.3.3 Criterion no. 3 – Embedded derivative has characteristics of ‘freestanding derivative’

The last provision of determining whether an embedded derivative should be bifurcated and accounted for separately is the requirement that the embedded derivative meet the characteristics of a freestanding derivative as defined in ASC 815 and be subject to its requirements. Section 2.4 discussed the characteristics of a derivative instrument and defined such terms as the *underlying*, *notional amount*, *no or smaller initial net investment* and *net settlement*. In order for a provision within a contract to be considered an embedded derivative, it must have those same characteristics.

ASC 815-15-25-1(c) specifically states that the initial net investment for the hybrid instrument should not be considered to be the initial net investment for the embedded derivative. The embedded feature’s presence undoubtedly affected the amount of the initial net investment in and/or the terms of the hybrid contract. However, this influence on the total initial net investment is not the same as establishing that the embedded feature on a freestanding basis would require more than an insignificant initial net investment.

For example, an equity conversion option embedded in a debt instrument will have affected the initial coupon of the hybrid instrument (i.e., the debt instrument probably pays a lower coupon than the market coupon for a similar debt instrument without the conversion option at the date of issuance). However, the reduction in the coupon paid by the issuer related to the conversion option is still less than the initial investment required to purchase the underlying equity securities on a stand-alone basis (see convertible debt example below). In general, we do not believe the evaluation of whether an embedded derivative has a small initial investment is a significant consideration in evaluating potential embedded derivatives.

How we see it

Net settlement must also be considered for an embedded derivative. In ASC 815-10-15-107 through 15-109, the FASB clarified that a put option or a call option (including a prepayment option) embedded in a debt instrument meets the net settlement criterion in ASC 815-10-15-100. ASC 815-10-15-107 through 15-109 refutes an argument that the act of surrendering a debt instrument in response to a call or a put is a *gross* settlement of the debt instrument, so therefore ASC 815-10-15-119 through 15-138 (the “readily convertible to cash” guidance) are the paragraphs to be evaluated to determine whether the put or call was net settleable if it were freestanding.

3.3.3.1 Evaluating exceptions for embedded derivatives

In determining whether an embedded derivative meets the characteristics of a freestanding derivative as defined in ASC 815, consideration should be given to certain contracts that are exempt from the requirements of the standard.

In addition to describing the characteristics of a derivative, chapter 2 also discussed the different exceptions to ASC 815's definition of a derivative. Applying these exceptions to embedded derivatives requires an evaluation as if the derivative in question were freestanding. For example, convertible debt is classified as debt on the issuer's balance sheet and frequently as an available-for-sale debt security by the investor. However, if the convertible debt was issued by a public company and the conversion feature were freestanding, it would be a derivative (an equity option). It has an underlying (the issuer's own stock price)⁴² and a notional amount (number of shares), and is net settled by delivery of equity securities that are readily convertible to cash. However, the equity option, if it existed on a freestanding basis, may be classified in shareholders' equity by the issuer⁴³ and thus qualify for one of the exceptions discussed in chapter 2. As a result, it would not be considered a derivative to the issuer and does not have to be bifurcated under ASC 815. (The option, however, would be a derivative to its holder if no other exceptions are applicable and, therefore, would have to be bifurcated by the investor.)

Illustration 3-1: Investor accounting for convertible debt under ASC 815

BeanCo buys a \$10,000,000 XYZ Company convertible bond, with a 10-year maturity, at par. The convertible bond pays 2% interest and is convertible into 1,000,000 shares of XYZ Company common stock, shares of which are publicly traded. Under ASC 815, BeanCo must determine the value of the conversion option embedded in the debt instrument and separately account for it as a derivative.

Assume that the \$10 per share conversion price exceeds the fair value of the XYZ shares at the date of issuance of the convertible bond. Therefore, the contractual terms of the embedded equity option indicate that it has no intrinsic value. The fair value of the conversion option (all of which represents time value) is determined to be \$500,000 (the fair value of an option would normally be determined using an option-pricing model). (Note the value of the derivative is substantially less than what the value would be to purchase 1,000,000 shares of XYZ Company.)

BeanCo would record the following entry at the date the convertible bond is purchased:

| | | |
|-----------------------------------|---------------|---------------|
| Bond | \$ 10,000,000 | |
| Conversion option (at fair value) | 500,000 | |
| Cash | | \$ 10,000,000 |
| Discount on bond | | 500,000 |

To the extent the conversion option is not being utilized in a hedging relationship, the bifurcated conversion option will have to be marked to market with changes in fair value recognized in earnings. The host bond, assumed to be available for sale, would have its changes in fair value reflected in OCI in accordance with ASC 320. In addition, the BeanCo will accrete the discount (\$500,000) on the bond into earnings over the 10-year life of the bond using the effective interest method, enhancing the yield. If the conversion option is never exercised, at maturity of the bond, the fair value of the conversion option will be zero. The \$500,000 change in fair value of the option will have been recognized as a loss in earnings as the fair value of the option declined over time and as an increase in interest income as the discount on the bond was amortized.

⁴² See the indexation guidance (ASC 815-40-15-5 through 15-8 and related implementation guidance in ASC 815-40-55-7 through 55-48).

⁴³ See the equity classification guidance (ASC 815-40-25-1 through 25-43 and related interpretative guidance in ASC 815-40-55-1 through 55-18).

How we see it

While ASC 815 does not specifically address the classification of embedded derivatives (i.e., on the balance sheet and classification in the statement of operations), the SEC staff⁴⁴ shared the following example in comments made at the 2000 AICPA National Conference on Current SEC Developments:

An entity issued a debt obligation with an interest rate that was indexed to the Standard & Poor's 500. Since this embedded equity derivative was not considered clearly and closely related to the debt host, the equity derivative was measured at fair value separate from the debt obligation. The host debt contract was accounted for in accordance with generally accepted accounting principles applicable to debt instruments. While measured separately, the embedded derivative and the host contract together will result in principal and interest payments to the debtholder. The entity asked if the embedded derivative could be netted with the host contract for financial statement presentation purposes. In this case, the staff believes presenting the embedded derivative and the host contract on a combined basis is an appropriate presentation of the entity's overall future cash outflows for that debt instrument as the requirements in US GAAP for legal right of offset would be met. The staff believes Statement 133's bifurcation requirements for embedded derivatives do not extend beyond measurement to presentation in the financial statements.

As a result of the SEC staff comments, practice has generally combined the presentation of a bifurcated embedded derivative with the host contract, but the individual facts and circumstances should be considered.

In a scenario in which a hybrid instrument is determined to consist of an equity host, but with an embedded derivative that is required to be bifurcated because it is not clearly and closely related to equity, we believe that separate presentation on the balance sheet for the equity host and the bifurcated derivative is appropriate. A derivative must be either an asset or a liability, and if it is required to be bifurcated, it should not be displayed in equity on the balance sheet.

3.3.4

Unit of analysis

The unit of analysis is important when evaluating potential derivatives because each embedded feature identified in a contract generally is evaluated for bifurcation. There are different approaches in practice in determining whether embedded features require bifurcation. Under one approach, each embedded feature is evaluated individually, while under another approach, similar embedded features may be (or in some cases must be) combined. The approach followed for the unit of analysis (i.e., embedded features evaluated individually or in a group) may affect whether some or all of those embedded features should be bifurcated.

For example, consider a typical contingently convertible preferred stock instrument that may be converted in four different situations (e.g., based on the trading price, parity, a notice of redemption, a specified corporate transaction), with each situation representing the resolution of a contingency in the instrument. The contractual conversion features in a contingently convertible preferred share could be analyzed in two ways. Under one approach, the instrument would have a single conversion option with four separate triggers that permit conversion (e.g., based on the trading price of the common stock, parity, a notice of redemption, a specified corporate transaction). Under another approach, the instrument could be viewed to have four conversion options for bifurcation, each of which is exercisable only upon the occurrence of a certain event (e.g., the trading price of the common stock, parity, a notice of redemption, a specified corporate transaction).

If the instrument were viewed to have one option with multiple exercise triggers, the entire conversion option would be bifurcated if any individual trigger or related settlement met the requirements for bifurcation. Under the second approach (four options, each with its own exercise trigger), only each individual trigger or related settlement requiring separate accounting would be bifurcated. The valuation

⁴⁴ See remarks by E. Michael Pierce at the AICPA National Conference on Current SEC Developments in 2000.

of that bifurcated derivative would be based on the value of a conversion option (or options, if several required bifurcation) that included an input for the probability of the trigger (or triggers) occurring. The remaining conversion options would not be bifurcated.

We generally believe either approach is acceptable in evaluating embedded derivatives. The approach followed should be consistently applied. However, the second approach may not be applied in all circumstances. For example, ASC 815-15-25-7 states that a single freestanding derivative may not be split into multiple derivatives. Therefore, a freestanding warrant that has four exercise contingencies should be viewed as a single equity contract.

Judgment will be required to determine when it is appropriate (or necessary) to combine terms into a single embedded feature to be evaluated for bifurcation. Factors to be considered include the commonality of the underlyings, a detailed analysis of the calculation of related settlement amounts, the situations in which settlements may be required and default provisions related to the terms. Once the appropriate unit of analysis is determined, each unit should be evaluated in accordance with the criteria in ASC 815-15-25-1.

3.4 Embedded derivative reassessment (updated September 2023)

Embedded features that were not bifurcated from the host instrument upon issuance either because the embedded feature (1) did not meet the definition of a derivative under ASC 815 or (2) met that definition but also qualified for an exception from derivative accounting should be reassessed at each reporting date. Conversion options, even if they were separately accounted for under ASC 470-20, should also be evaluated.

In reassessing embedded features for bifurcation, the initial conclusion of whether that feature was clearly and closely related to the host instrument pursuant to ASC 815-15-25-1(a) is not reevaluated (by reference to ASC 815-15-25-27). Accordingly, if initially deemed clearly and closely related (and therefore not bifurcated), that feature would not be bifurcated in the future. While it is not clear in the guidance, we generally believe that reassessment for bifurcation, including the “clearly and closely related” criterion, should be performed when a contract is modified, as the modification results in a different legal arrangement. For the issuer, this would include a situation when a debt instrument is modified even when the modification of a debt instrument was not accounted for as an extinguishment pursuant to ASC 470-50-40. If there is a significant modification that results in the extinguishment of the original debt instrument pursuant to ASC 470-50-40, the new debt instrument would have to be evaluated for embedded features by the issuer (consistent with the analysis that would be performed at initial recognition).



Reference rate reform considerations

ASC 848, *Reference Rate Reform*, provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: In accordance with this guidance, contracts that are modified as a result of reference rate reform are eligible for relief from the modification accounting requirements in US GAAP, if certain criteria are met. Accordingly, an entity that modifies a contract as a result of reference rate reform is not required to reassess its original conclusion about whether that contract contains an embedded derivative that is clearly and closely related to the economic characteristics and risks of the host contract.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [A closer look at the FASB accounting relief related to reference rate reform.](#)

In reassessing the definition of a derivative, the characteristics of having an underlying or an initial net investment generally will not change with time. However, the application of the net settlement criteria may change. ASC 815 requires the reconsideration of the market mechanism and the readily convertible cash criteria pursuant to ASC 815-10-15-118 and ASC 815-10-15-139, respectively. A contract that was (or was not) net settleable by its contractual terms will likely remain as such through its life. However, a market mechanism to facilitate net settlement may emerge over time or an asset to be delivered in a physical settlement may become readily convertible to cash.

For example, a typical equity-linked embedded feature (e.g., conversion option) may not have met the definition of a derivative if gross settlement were required and the issuer was not a public company (i.e., the underlying shares were not readily convertible to cash). That condition could change if the company completed an IPO and its shares now were readily convertible to cash. In that case, the embedded feature would meet the definition of a derivative and should be further evaluated for bifurcation (i.e., evaluated for an exception from bifurcation). That initial analysis would occur on the date the feature met the definition of a derivative (i.e., on the IPO date).

As another example, a public issuer with limited transaction volume for its shares compared with the conversion shares may develop additional volume such that the conversion shares are now considered readily convertible to cash (refer to ASC 815-10-55-101 through 55-108).

With respect to the reassessment of any scope exceptions, the most common exception from bifurcation for equity-linked embedded features is under ASC 815-10-15-74(a), which requires evaluation of whether the feature is indexed to the issuer's own stock and would be classified in stockholders' equity. This reassessment should be performed at each reporting date for those features that meet the definition of a derivative, as follows:

- ▶ Reassessment of the indexation guidance – The conclusion under the indexation guidance generally would not be expected to change unless the contractual terms have changed.
- ▶ Reassessment of the equity classification guidance – In reassessing the criteria for equity classification related to settlement alternatives, a particular focus should be on the availability of shares to settle the instrument.

For an embedded equity-linked feature (e.g., conversion feature) that meets the definition of a derivative for the first time (e.g., underlying stock becomes actively traded, making it readily convertible to cash), the embedded feature should be assessed at that time for the exception pursuant to ASC 815-10-15-74(a). That assessment would be made under the then-current circumstances to determine whether the feature is considered indexed to the issuer's shares.

3.5 Embedded derivatives that cannot be identified and measured

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

Entity Unable to Reliably Identify and Measure Embedded Derivative

815-15-25-52

An entity that enters into sophisticated investment and funding strategies such as structured notes or other contracts with embedded derivatives should be able to obtain the information necessary to reliably identify and measure the separate components. It should be unusual that an entity would conclude that it cannot reliably separate an embedded derivative from its host contract.

815-15-25-53

If an entity cannot reliably identify and measure the embedded derivative that paragraph 815-15-25-1 requires be separated from the host contract, paragraphs 815-15-30-1(b) and 815-15-35-2 require that the entire contract be measured at fair value with gain or loss recognized in earnings, but that contract may not be designated as a hedging instrument pursuant to Subtopic 815-20.

The FASB recognized that there may be circumstances in which an embedded derivative cannot be reliably identified and measured for separation from the host contract. In those circumstances, ASC 815 requires that the *entire* contract, including both its derivative and nonderivative portions, be measured at fair value with changes in fair value recognized currently in earnings. That contract is also not eligible to be used as a hedging instrument.

Prohibiting an entire contract with an embedded derivative from being designated as a hedging instrument avoids the inappropriate use of nonderivative instruments as hedging instruments. The FASB believes this provision also should provide an incentive to identify and separate derivative features from their host contracts.

How we see it

This “practicability” provision will most likely be invoked in rare situations in which the hybrid contract contains multiple embedded derivatives such that the value of any one embedded derivative is contingent upon the underlying movements of several other embedded derivatives. In cases such as this, it is appropriate to evaluate and value the multiple embedded derivatives as a single compound investment, which may prove difficult and necessitate the use of this practicability provision.

3.6**Non-option embedded derivatives****Excerpt from Accounting Standards Codification****Derivatives and Hedging – Embedded Derivatives***Initial Measurement**Hybrid Instrument Acquired at Its Inception***815-15-30-4**

In separating a non-option embedded derivative from the host contract under paragraph 815-15-25-1, the terms of that non-option embedded derivative shall be determined in a manner that results in its fair value generally being equal to zero at the inception of the hybrid instrument. Because a loan and an embedded derivative can be bundled in a structured note that could have almost an infinite variety of stated terms, it is inappropriate to necessarily attribute significance to every one of the note’s stated terms in determining the terms of the non-option embedded derivative. If a non-option embedded derivative has stated terms that are off-market at inception, that amount shall be quantified and allocated to the host contract because it effectively represents a borrowing. (This paragraph does not address the bifurcation of the embedded derivative by a holder who has acquired the hybrid instrument from a third party after the inception of that hybrid instrument.) The non-option embedded derivative shall contain a **notional amount** and an **underlying** consistent with the terms of the hybrid instrument. Artificial terms shall not be created to introduce leverage, asymmetry, or some other risk exposure not already present in the hybrid instrument. Generally, the appropriate terms for the non-option embedded derivative will be readily apparent. Often, simply adjusting the referenced forward price (pursuant to documented legal terms) to be at the market for the purpose of separately accounting for the embedded derivative will result in that non-option embedded derivative having a fair value of zero at inception of the hybrid instrument.

Hybrid Instrument Acquired After Its Inception**815-15-30-5**

In separating a non-option embedded derivative from the host contract under paragraph 815-15-25-1 if the holder has acquired the hybrid instrument in a secondary market after the inception of the hybrid instrument, the terms of the embedded derivative shall be determined by the holder so as to result in the derivative instrument having a fair value generally equal to zero at the date the holder enters into (that is, acquires) the hybrid instrument. The initial accounting by the holder of the hybrid instrument shall not be affected by whether it purchased the hybrid instrument at inception or after inception in a secondary market.

ASC 815-15-30-4 requires that the terms of non-option embedded derivatives be determined such that the embedded derivative has a fair value of zero at the *inception* of the hybrid instrument.⁴⁵ This requirement adds an element of complexity to accounting for the bifurcation, although its intent is very simple. The FASB did not want a hybrid instrument creator to effectively embed financing provisions into the portion of the instrument that is accounted for as a derivative at fair value under ASC 815. If a non-option derivative in a debt instrument has off-market terms at inception, those off-market terms essentially represent a borrowing element.

Consider this example:

Illustration 3-2: Multiple ways the same cash flows may be structured

Cory Enterprises structures a one-year note receivable from Haley Company for \$900 at a 6% annual interest rate but includes a provision by which Cory will receive any increase or pay any decrease in the current market price (\$200) of Randall Corporation's common stock. This structured note would be accounted for as a debt host contract with an initial carrying amount of \$900 and a fixed annual interest rate of 6% and an embedded forward contract with a \$200 price. The forward contract would have an initial fair value of zero since the current market price of Randall is also \$200. Note, however, that the following contractual terms would result in identical cash flows to the investment described above:

1. Cory is entitled to receive at the end of one year \$954 plus any excess (or minus any shortfall) of the current per share market price of Randall's common stock over (or under) \$200 (the structure described in the previous paragraph).
2. Cory is entitled to receive at the end of one year \$755 plus any excess (or minus any shortfall) of the current per share market price of Randall's common stock over (or under) \$1.
3. Cory is entitled to receive at the end of one year \$1,060 plus any excess (or minus any shortfall) of the current per share market price of Randall's common stock over (or under) \$306.

The FASB staff has indicated that any of these investments should be accounted for identically (i.e., with the embedded forward presumed to have a fair value of zero at inception). As a result, regardless of the contractual terms of the investment or the embedded forward contract, it would be accounted for as a \$900, 6% fixed-rate debt obligation and a forward contract to purchase Randall Corporation common stock at a price of \$200 per share.

⁴⁵ See ASC 815-15-30-4 and 55-160 through 55-164.

How we see it

In ASC 815-15-30-6, the FASB also considered the application of this concept to option-based embedded derivatives. It concluded that the terms of an option-based derivative should be respected.⁴⁶ In other words, the terms of an option-based embedded derivative should not be adjusted to result in the derivative being at-the-money at the inception of the hybrid instrument.

Subsequent to the origination date, the derivative is marked to fair value pursuant to the ASC 815 model. The accounting for the host instrument (absent the derivative) will continue to follow the appropriate US GAAP guidance for that instrument.

For hybrid instruments bought and sold after their origination date, ASC 815-15-30-5 states that the initial accounting by the holder of the hybrid instrument should not be affected by whether it purchased the hybrid instrument at inception or subsequent to inception in a secondary market. Therefore, in this situation, the terms of the non-option-based embedded derivative should be determined by the holder so as to result in the derivative having a fair value generally equal to zero at the date the holder enters into (that is, acquires) the hybrid instrument (i.e., such that it complies with the above guidance at the acquisition date of the hybrid instrument).

How we see it

ASC 820 requires fair value measurements to be determined based on an exit price – the price that would be received to sell an asset or price paid to transfer a liability at the measurement date – not an entry price. Accordingly, entities that are party to a hybrid instrument that requires bifurcation of a non-option embedded derivative must use terms consistent with ASC 820's exit price principle that also are calibrated to result in the embedded derivative having a fair value of zero at the inception of the instrument. Applying the principles of ASC 820 may affect the terms ascribed to the non-option embedded derivative because market participants may use different assumptions to value the instrument in a transaction to purchase (or assume) the derivative.

3.7

Embedded option derivatives

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Initial Measurement

Separating an Option-Based Embedded Derivative

815-15-30-6

The terms of an option-based embedded derivative shall not be adjusted to result in the embedded derivative being at the money at the inception of the hybrid instrument. In separating an option-based embedded derivative from the host contract under paragraph 815-15-25-1, the strike price of the embedded derivative shall be based on the stated terms documented in the hybrid instrument. As a result, the option-based embedded derivative at inception may have a strike price that does not equal the market price of the asset associated with the underlying. The guidance in this paragraph addresses both of the following:

- a. The bifurcation of the option-based embedded derivative by a holder who has acquired the hybrid instrument from a third party either at inception or after inception of that hybrid instrument
- b. The bifurcation of the option-based embedded derivative by the issuer when separate accounting for that embedded derivative is required.

⁴⁶ See ASC 815-15-30-6 and further discussion in section 3.7.

There are substantive, fundamental differences between forward-based contracts (as discussed above) and option-based contracts. Adjusting the strike price of an option-based embedded derivative fundamentally alters the economics of the hybrid instrument, whereas adjusting the strike price of a forward-based embedded derivative does not necessarily fundamentally alter the economics of the hybrid instrument. For example, if an option-based derivative is in the money, that intrinsic value amount does not represent a lending activity since the option may never be exercised (that is, it may expire out of the money due to a change in the underlying) and, therefore, a cash flow may not occur by the end of the term. Conversely, the contractual terms of a forward contract are such that a cash flow will occur at maturity. Thus, if the terms of a forward result in a fair value other than zero, that amount effectively represents a borrowing. The foregoing fundamental distinctions warrant different guidance on accounting for option-based and non-option-based embedded derivatives.

Accordingly, ASC 815-15-30-6 prohibits the terms of an option-based embedded derivative from being adjusted at the inception of the hybrid. As a result, the option-based embedded derivative at inception may have a strike price that does not equal the market price of the asset associated with the underlying and a fair value that is not near zero.

3.8

Host contracts

The determination of whether the host contract is a debt instrument or an equity instrument (or another type of host instrument) is critical in assessing whether an embedded derivative is clearly and closely related to a host contract. While ASC 815 does not explicitly define the characteristics of a host contract, the FASB concluded that other than the exception for lease instruments, an entity should generally consider a host contract as either having debt characteristics or equity characteristics. ASC 815-15-25-21 and 25-22 indicate that a lease instrument could contain an embedded derivative, which implies that a lease instrument could be a host contract.⁴⁷

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

Host Contract After Separation

815-15-25-54

If an embedded derivative is separated from its host contract, the host contract shall be accounted for based on GAAP applicable to instruments of that type that do not contain embedded derivatives.

After an embedded derivative has been bifurcated, the host instrument is accounted for based on its characteristics. The characteristics of a debt host contract generally should be based on the stated or implied substantive terms of the hybrid instrument.⁴⁸ Those terms may include a fixed rate, floating rate, zero-coupon, discount or premium, or some combination thereof. In the absence of stated or implied terms, an entity may make its own determination whether to account for the debt host as a fixed-rate, floating-rate or zero-coupon bond. This determination requires judgment because the circumstances surrounding each hybrid instrument may be different.

However, as described in ASC 815-15-25-25, unrelated artificial terms cannot be created to introduce some other risk exposure not already present in the hybrid instrument. For example, it would be inappropriate to evaluate a straightforward fixed-rate instrument as having a floating-rate host contract

⁴⁷ As another exception, the FASB determined that the host contract in a nontraditional variable annuity contract is a “traditional variable annuity,” which is neither a debt host nor an equity host. The interpretations for nontraditional insurance products cannot be analogized to outside of insurance products. These concepts are discussed separately in Appendix C of this FRD.

⁴⁸ See ASC 815-15-25-24 and 25-25.

and an interest rate swap component that has a comparable floating-rate leg in an embedded compound derivative. In other words, entities cannot introduce fictional cash flows to manipulate the resultant debt host and embedded derivative characteristics.

ASC 815 also contains the following clarifications regarding certain types of embedded derivatives, their underlyings and certain host instruments:

Host debt instruments:

- ▶ *Interest-rate indexes* – An interest rate or interest-rate index is considered to be clearly and closely related to a host debt instrument, provided a significant leverage factor is not involved (refer to the “boundary” notion of ASC 815-15-25-26 through 25-29 related to the “clearly and closely related” criterion earlier in section 3.3.1).
- ▶ *Inflation-indexed contracts* – As discussed in ASC 815-15-25-50, interest rates and the rate of inflation in the economic environment for the currency in which a debt instrument is denominated are clearly and closely related, provided a significant leverage factor is not involved (e.g., four times the amount of interest and/or principal payments). Inflation indexes that are not consistent with the currency in which the debt is denominated may represent an embedded derivative requiring bifurcation (e.g., US dollar (USD) denominated debt that is indexed to the inflation rate in Japan).
- ▶ *Credit-sensitive payments* – As discussed in ASC 815-15-25-46 and 25-47, the creditworthiness of a debtor and the interest rate on a debt instrument are clearly and closely related. (Thus, interest rates that reset on an event of default, upon a change in the debtor’s credit rating or on a change in the debtor’s credit spread over treasury bonds or the SOFR Overnight Index Swap (OIS) rate would all be considered clearly and closely related. However, a reset based on a change in another entity’s credit rating or a default would not be considered clearly and closely related.)
- ▶ *Calls and puts on debt instruments* – As discussed in ASC 815-15-25-41 through 25-43, call or put options that can accelerate the repayment of principal on a debt instrument are clearly and closely related unless the amount paid upon settlement is indexed to an underlying other than interest rates or credit risk, or the debt involves a substantial premium or discount (such as found in zero-coupon bonds) and the option is only contingently exercisable, provided such options are also considered to be clearly and closely related to the debt host contract under ASC 815-15-25-26 (if that paragraph is applicable to the embedded feature). See further discussion in section 3.10.3.2.
- ▶ *Interest-rate floors, caps and collars* – As discussed in ASC 815-15-25-32, interest-rate floors, caps and collars (i.e., a combination of a floor and cap) within a host debt instrument are clearly and closely related unless they violate the “boundary” conditions of ASC 815-15-25-26 through 25-29.
- ▶ *Term-extending options* – As discussed in ASC 815-15-25-44 and 25-45, an embedded derivative that unilaterally enables one party to extend significantly the remaining term to maturity or automatically extends significantly the maturity when triggered by a specific event or condition is not clearly and closely related to a host debt instrument, unless the interest rate concurrently resets to the approximate current market rate for the extended term and the debt instrument initially involved no significant discounts. (While term-extending options could be viewed no differently from term-shortening options such as calls and puts, which are usually considered clearly and closely related to the host, the FASB disagreed. This provision encompasses only debt hosts, not other hosts such as leases, in which term-extending options are frequently embedded.)⁴⁹

⁴⁹ See ASC 815-15-25-45.

- ▶ *Equity-indexed interest payments* – As discussed in ASC 815-15-25-49, changes in the fair value of a specific common stock or on an index based on a basket of equities are not clearly and closely related to the interest return on a debt instrument.
- ▶ *Commodity-indexed interest or principal payments* – As discussed in ASC 815-15-25-48, changes in the fair value of a commodity are not clearly and closely related to the interest yield on a debt instrument.

How we see it

When evaluating an underlying that typically would be clearly and closely related, such as some of those discussed above, the extent of leverage should also be considered. A leveraged derivative is a derivative whereby the change in the underlying is multiplied by a factor that magnifies the effect of the change in the underlying. Leveraged derivatives can be extremely volatile and result in unusually large gains and losses. This concept of leverage, both positive and negative, is the essence of the “boundary” notion of ASC 815-15-25-26 through 25-29, even though the word “leverage” is never used. If the leverage is so great that it is reasonably possible that it will cause a return that is inconsistent with the nature of the host contract (e.g., negative yield on a debt instrument or an effective interest rate on an inflation-indexed lease that is double the lessee’s incremental borrowing rate), the embedded derivative should not be considered clearly and closely related.

Host equity instruments:

- ▶ *Calls and puts on equity instruments* – As discussed in ASC 815-15-25-20, put and call options that require the issuer of the equity instrument to reacquire the instrument or give the issuer the right to acquire the instrument are not clearly and closely related to the equity instrument. An equity instrument host is characterized by a claim to the residual ownership interest in an entity and put and call features are not considered to possess that same economic characteristic. (Although they are not clearly and closely related, calls and puts on a company’s own stock could qualify for the exception related to instruments indexed to a company’s own stock and classified within stockholders’ equity (for the issuer only) – see section 2.5.10.)

Host lease instruments:

- ▶ *Inflation-indexed rentals* – As discussed in ASC 815-15-25-21, rentals for the use of leased assets and adjustments for inflation on similar property are considered to be clearly and closely related. Thus, unless a significant leverage factor is involved (refer to the “boundary” notion related to the “clearly and closely related” concept in ASC 815-15-25-26 through 25-29), the inflation-related derivative embedded in an inflation-indexed lease contract would not be separated from the host contract. (Refer to our *FRD, Lease accounting – Accounting Standards Codification 842, Leases*, for further discussion of this issue.)
- ▶ *Contingent rentals (or variable lease payments) based on related sales* – As discussed in ASC 815-15-55-7, lease contracts that include contingent rentals (or variable lease payments) based on certain sales of the lessee would not have the contingent-rental-related (or variable-lease-payment-related) embedded derivative separated from the host contract because under ASC 815, a non-exchange-traded contract whose underlying is specified volumes of sales by one of the parties to the contract would not be subject to the requirements of ASC 815.
- ▶ *Contingent rentals (or variable lease payments) based on a variable interest rate* – As discussed in ASC 815-15-25-22, the obligation to make future payments for the use of leased assets and the adjustment of those payments to reflect changes in a variable-interest-rate index are considered to be clearly and closely related. Thus, lease contracts that include contingent rentals (or variable lease payments) based on changes in the prime rate would not have the contingent-rental-related (or variable-lease-payment-related) embedded derivative separated from the host contract.

Host preferred stock instruments:

- ▶ *Convertible preferred stock* – Changes in the fair value of an equity interest and interest rates on a debt instrument are not clearly and closely related, but changes in the fair value of one equity interest and another equity interest of the same issuer are. Therefore, the terms of the preferred stock must be evaluated to determine whether they are more akin to an equity instrument or a debt instrument. ASC 815 indicates that when a hybrid financial instrument is issued in the form of a share, an entity should determine the nature of the host contract by considering all stated and implied substantive terms and features of the hybrid financial instrument, weighing each term and feature on the basis of the relevant facts and circumstances. See the section below for further information on determining the nature of a host contract related to a hybrid financial instrument issued in the form of a share.

3.8.1 Determining the nature of a host contract related to a hybrid financial instrument issued in the form of a share

Preferred stock is a popular means of financing. Preferred stock can be issued with a variety of features, including redemption features (mandatory redemption, contingent puts or calls, elective puts or calls, etc.), dividend features (cumulative, fixed-rate or participating, fixed-rate with various caps or floors, etc.), voting or other corporate governance rights (e.g., full voting on an “as-converted” basis, protective voting as it relates to the specific instrument or specific issuer actions, no voting, representation on Board of Directors) and conversion features (e.g., mandatorily convertible, convertible at the holder’s option, or in some cases contingently convertible at the holder’s or issuer’s option).

3.8.1.1 Defining the host contract

ASC 815-15-25-17A requires an issuer or investor to consider the economic characteristics and risks of the entire hybrid instrument issued in the form of a share, including all of its stated and implied substantive terms and features, to determine whether the nature of the host contract in the share is more akin to debt or to equity. This is commonly referred to as the whole instrument approach.

Under this approach, all stated or implied features, including the embedded feature being evaluated for bifurcation, must be considered. Each term and feature should be weighed based on the relevant facts and circumstances to determine the nature of the host contract. This approach results in a single, consistent determination of the nature of the host contract, which is then used to evaluate each embedded feature for bifurcation.

The guidance further clarifies that the existence or omission of any single feature, including an investor-held, fixed-price, noncontingent redemption option, does not necessarily determine the economic characteristics and risks of the host contract. Instead, an entity must base that determination on an evaluation of the entire hybrid instrument, including all substantive terms and features.

However, an individual term or feature may be weighed more heavily in the evaluation on the basis of facts and circumstances. An entity should use judgment based on an evaluation of all relevant terms and features, including the circumstances surrounding the issuance or acquisition of the equity share, as well as the likelihood that an issuer or investor is expected to exercise any options within the host contract, to determine the nature of the host contract.

How we see it

It is important to note that ASC 815-15-25-17A applies only to a hybrid financial instrument issued in the form of a share. Accordingly, in the evaluation of other types of hybrid financial instruments, the nature of the host instrument would be determined by excluding the embedded derivative-type terms and analyzing the potential host contract that remains.

3.8.1.1.1

Weighing terms and features**Excerpt from Accounting Standards Codification****Derivatives and Hedging—Embedded Derivatives****Recognition****Applying the Clearly-and-Closely Related Criterion****815-15-25-17C**

When applying the guidance in paragraph 815-15-25-17A, an entity shall determine the nature of the host contract by considering all stated and implied substantive terms and features of the hybrid financial instrument, determining whether those terms and features are debt-like versus equity-like, and weighing those terms and features on the basis of the relevant facts and circumstances. That is, an entity shall consider not only whether the relevant terms and features are debt-like versus equity-like, but also the substance of those terms and features (that is, the relative strength of the debt-like or equity-like terms and features given the facts and circumstances). In assessing the substance of the relevant terms and features, each of the following may form part of the overall analysis and may inform an entity's overall consideration of the relative importance (and, therefore, weight) of each term and feature among other terms and features:

- a. The characteristics of the relevant terms and features themselves (for example, contingent versus noncontingent, in-the-money versus out-of-the-money)
- b. The circumstances under which the hybrid financial instrument was issued or acquired (for example, issuer-specific characteristics, such as whether the issuer is thinly capitalized or profitable and well-capitalized)
- c. The potential outcomes of the hybrid financial instrument (for example, the instrument may be settled by the issuer issuing a fixed number of shares, the instrument may be settled by the issuer transferring a specified amount of cash, or the instrument may remain legal-form equity), as well as the likelihood of those potential outcomes. The assessment of the potential outcomes may be qualitative in nature.

815-15-25-17D

The following are examples (and not an exhaustive list) of common terms and features included within a hybrid financial instrument issued in the form of a share and the types of information and indicators that an entity (an issuer or an investor) may consider when assessing the substance of those terms and features in the context of determining the nature of the host contract, as discussed in paragraph 815-15-25-17C:

- a. Redemption rights. The ability for an issuer or investor to redeem a hybrid financial instrument issued in the form of a share at a fixed or determinable price generally is viewed as a debt-like characteristic. However, not all redemption rights are of equal importance. For example, a noncontingent redemption option may be given more weight in the analysis than a contingent redemption option. The relative importance (and, therefore, weight) of redemption rights among other terms and features in a hybrid financial instrument may be evaluated on the basis of information about the following (among other relevant) facts and circumstances:
 1. Whether the redemption right is held by the issuer or investors
 2. Whether the redemption is mandatory
 3. Whether the redemption right is noncontingent or contingent
 4. Whether (and the degree to which) the redemption right is in-the-money or out-of-the-money

5. Whether there are any laws that would restrict the issuer or investors from exercising the redemption right (for example, if redemption would make the issuer insolvent)
 6. Issuer-specific considerations (for example, whether the hybrid financial instrument is effectively the residual interest in the issuer [due to the issuer being thinly capitalized or the common equity of the issuer having already incurred losses] or whether the instrument was issued by a well-capitalized, profitable entity)
 7. If the hybrid financial instrument also contains a conversion right, the extent to which the redemption price (formula) is more or less favorable than the conversion price (formula), that is, a consideration of the economics of the redemption price (formula) and the conversion price (formula), not simply the form of the settlement upon redemption or conversion.
- b. Conversion rights. The ability for an investor to convert, for example, a preferred share into a fixed number of common shares generally is viewed as an equity-like characteristic. However, not all conversion rights are of equal importance. For example, a conversion option that is noncontingent or deeply in-the-money may be given more weight in the analysis than a conversion option that is contingent on a remote event or deeply out-of-the-money. The relative importance (and, therefore, weight) of conversion rights among other terms and features in a hybrid financial instrument may be evaluated on the basis of information about the following (among other relevant) facts and circumstances:
1. Whether the conversion right is held by the issuer or investors
 2. Whether the conversion is mandatory
 3. Whether the conversion right is noncontingent or contingent
 4. Whether (and the degree to which) the conversion right is in-the-money or out-of-the-money
 5. If the hybrid financial instrument also contains a redemption right held by the investors, whether conversion is more likely to occur before redemption (for example, because of an expected initial public offering or change-in-control event before the redemption right becoming exercisable).
- c. Voting rights. The ability for a class of stock to exercise voting rights generally is viewed as an equity-like characteristic. However, not all voting rights are of equal importance. For example, voting rights that allow a class of stock to vote on all significant matters may be given more weight in the analysis than voting rights that are only protective in nature. The relative importance (and, therefore, weight) of voting rights among other terms and features in a hybrid financial instrument may be evaluated on the basis of information about the following (among other relevant) facts and circumstances:
1. On which matters the voting rights allow the investor's class of stock to vote (relative to common stock shareholders)
 2. How much influence the investor's class of stock can exercise as a result of the voting rights.
- d. Dividend rights. The nature of dividends can be viewed as a debt-like or equity-like characteristic. For example, mandatory fixed dividends generally are viewed as a debt-like characteristic, while discretionary dividends based on earnings generally are viewed as an equity-like characteristic. The relative importance (and, therefore, weight) of dividend terms among other terms and features in a hybrid financial instrument may be evaluated on the basis of information about the following (among other relevant) facts and circumstances:
1. Whether the dividends are mandatory or discretionary

2. The basis on which dividends are determined and whether the dividends are stated or participating
 3. Whether the dividends are cumulative or noncumulative.
- e. Protective covenants. Protective covenants generally are viewed as a debt-like characteristic. However, not all protective covenants are of equal importance. Covenants that provide substantive protective rights may be given more weight than covenants that provide only limited protective rights. The relative importance (and, therefore, weight) of protective covenants among other terms and features in a hybrid financial instrument may be evaluated on the basis of information about the following (among other relevant) facts and circumstances:
1. Whether there are any collateral requirements akin to collateralized debt
 2. If the hybrid financial instrument contains a redemption option held by the investor, whether the issuer's performance upon redemption is guaranteed by the parent of the issuer
 3. Whether the instrument provides the investor with certain rights akin to creditor rights (for example, the right to force bankruptcy or a preference in liquidation).

In determining the nature of a host contract, the guidance requires an entity to first identify all of the stated and implied substantive terms and features (e.g., a conversion option, a redemption option, voting rights, dividend rights, protective covenants) within the hybrid instrument and to determine whether those terms and features are debt-like or equity-like. The entity will then weigh each term and feature on the basis of the relevant facts and circumstances to determine the relative strength of the debt-like and equity-like terms and features. To assess the substance of relevant terms and features, it is important to determine not only which terms and features are debt-like or equity-like, but also the extent to which those terms and features are debt-like or equity-like.

When assessing the relative importance of the terms and features, an entity must consider their substance. In doing so, an entity may consider the following:

- ▶ The characteristics of the terms and features (e.g., contingent versus noncontingent, in-the-money versus out-of-the-money)
- ▶ The circumstances under which the hybrid instrument was issued or acquired (e.g., issuer-specific characteristics, such as whether the issuer is thinly capitalized or profitable and well capitalized)
- ▶ The potential outcomes of the hybrid instrument and the likelihood of those potential outcomes (e.g., the instrument may be settled by the issuer issuing a fixed number of shares or by transferring a specified amount of cash, or the instrument may remain legal-form equity), as well as the likelihood of those potential outcomes

The potential outcomes may be assessed qualitatively. The entity's expectation of the potential expected outcomes as well as the investor's expectation of the nature of return (i.e., debt-like or equity-like) from the investment should be considered in the assessment.

The table below presents several key features that are common in preferred stock and shows whether those terms and features are, by their nature, debt-like or equity-like. Once a determination is made as to whether the feature is debt-like or equity-like, such feature should be weighted based on the relevant facts and circumstances to determine the nature of the host contract.

| Feature | Equity-like | <----- | -----> | Debt-like |
|--------------------------|---|---|---|---|
| <i>Redemption</i> | Perpetual | Puttable (at holder's option) on contingent event | Puttable (at holder's option) with passage of time | Mandatorily redeemable |
| <i>Dividends</i> | Cumulative participating (and presumably noncumulative participating) | Noncumulative fixed rate (and presumably indexed variable rate) | | Cumulative fixed rate (and presumably cumulative indexed variable rate) |
| <i>Voting rights</i> | Votes with common on as-converted basis | Votes with common on as-converted basis on specific matters | Votes only on matters related to the specific instrument | Nonvoting |
| <i>Covenants</i> | No provisions that are substantively protective covenants | | Includes provisions that are substantively protective covenants | |
| <i>Conversion rights</i> | Mandatorily convertible | Optionally convertible | | Not convertible |

3.9 Illustrations of the application of the clearly and closely related criterion

The following chart summarizes several examples of contracts that may contain embedded derivatives and the investor's accounting treatment required under ASC 815 (the accounting treatment of the issuer may differ from that of the investor):

| Illustration 3-3: Examples of embedded features within hybrid instruments | | | |
|---|--|--|---|
| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
| Floating-rate debt – bond with interest rate tied to an interest index (i.e., SOFR, prime) | There is no embedded derivative. | N/A | N/A |
| Fixed-rate debt – bond with a fixed interest rate | There is no embedded derivative. | N/A | N/A |
| Callable debt instrument – issuer holds an option to call (prepay) the debt instrument at a predetermined price. There is no substantial premium or discount on the debt. | Call option for issuer to prepay debt instrument | Yes – the underlying to the call option is market interest rates, which are clearly and closely related to an interest-bearing host debt instrument. Note: call provisions must be within the boundaries set by ASC 815-15-25-26 through 25-29, 25-37 through 25-39 and 55-25. | No |

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|---|--|--|--|
| Convertible debt investment – investor receives the option to convert the debt instrument into the equity of the issuer at an established conversion rate | Call option on issuer's stock | No – for the investor, an equity-based underlying cannot be clearly and closely related to an interest-bearing host debt instrument. However, if the terms of conversion do not allow for net cash settlement (e.g., the shares are not publicly traded), this may not be a derivative because there is no way to net settle the conversion feature. ⁵⁰ | Yes – for the investor, the embedded derivative will be recorded at fair value on the balance sheet with subsequent changes in fair value reported in earnings. The issuer may or may not have to bifurcate the embedded derivative. ⁵¹ |
| Equity-indexed note – bond for which the return of interest, principal or both is tied to a specified equity security or index (i.e., S&P 500 index) | A series of forward exchange contracts or option contracts tied to a specified equity security or index | No – forward or option contracts for which the underlying is an equity index are not clearly and closely related to an interest-bearing host debt instrument. | Yes – embedded derivative will be recorded at fair value on the balance sheet with subsequent changes in fair value reported in earnings. |
| Variable principal redemption bond – bond whose principal redemption value at maturity depends on the change in an underlying index over a predetermined observation period (i.e., supplemental principal payment at maturity if the final S&P 500 closing value is less than its value at date of issuance and 10-year Treasury interest rates are greater than 2% as of a specified date) | Option that provides for an additional return contingent upon the relationship between the S&P 500 index and the US Treasury rates | No – an equity (S&P 500 index) underlying cannot be clearly and closely related to an interest-bearing host debt instrument. | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |

⁵⁰ The issuer's accounting depends on whether a separate instrument with the same terms as the embedded written option would be a derivative instrument under the provisions of ASC 815. Assuming the option is indexed to the issuer's own stock and a separate instrument with the same terms would be classified in stockholders' equity, the written option is not considered to be a derivative instrument for the issuer and should not be separated from the host contract (unless accounting under other guidance required separate accounting – e.g., under ASC 470-20). However, if the terms of the conversion allow for a net cash settlement rather than delivery of the issuer's shares at the investor's option, the written option would be considered a derivative instrument and the issuer would bifurcate the derivative from the host and account for it separately.

⁵¹ See preceding footnote.

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|--|--|--|---|
| <p>Inverse floater bond – bond with a coupon rate of interest that varies inversely with changes in specified general interest rate levels or indexes (i.e., interest rate equals greater of 0% or 8.75% less six-month Term SOFR). The initial rate of return for the issuer over the expected life of the bond is 4.50%.</p> | <p>Interest rate swap referenced to an interest-rate index</p> | <p>Yes – underlying to a debt host is an interest rate index. Since the swap has a floor to prevent any erosion of principal due to a negative interest rate, the investor would recover substantially all of its initial investment. In addition, the terms do not permit a doubling of the initial rate of return or provide a return twice the market yield for the investment at the same time. Separate accounting for the embedded derivative would not be required.</p> | <p>No – hybrid instrument would follow the accounting prescribed in ASC 320-10-35-38 through 35-43.</p> |
| <p>Levered inverse floater bond – bond with a coupon that varies indirectly with changes in general interest rate levels and applies a multiplier (greater than 1.0) to the specified index in its calculation of interest (i.e., interest rate equals greater of 0% or 14.55% less (2.5 times three-month Term SOFR)). The initial rate of return for the issuer over the expected life of the bond is 7.30%.</p> | <p>Leveraged fixed-for-floating interest rate swap</p> | <p>Yes – underlying to a debt host is an interest rate index. Since the swap has a floor to prevent any erosion of principal due to a negative interest rate, the investor would recover substantially all of its initial investment. In addition, the terms do not permit a doubling of the initial rate of return or provide a return twice the market yield for the investment at the same time. Separate accounting for the embedded derivative would not be required.</p> | <p>No – hybrid instrument would follow the accounting prescribed in ASC 320-10-35-38 through 35-43.</p> |
| <p>Delivered floater bond – bond with a coupon rate of interest that lags overall movements in general specified interest rate levels or indexes (i.e., interest rate equals 0.5 times 10-year constant maturity treasury (CMT) plus 1.25%)</p> | <p>Deleveraged interest rate swap or a series of forward agreements that is referenced to an interest rate index</p> | <p>Yes, if there is an explicit cap. Underlying to a debt instrument is an interest rate index. It appears impossible for the embedded derivative to achieve a negative return or to double the initial rate of return of the host contract and double the market rate of return of the host contract. However, the 10-year CMT is an index that does not reflect the market yield of an instrument at any given reset point. The deleveraging feature helps to reduce the probability that the “double/double” criterion will be violated, but it does not technically remove the mathematical possibility without an explicit cap.</p> | <p>No – hybrid instrument would follow the accounting prescribed in ASC 320-10-35-38 through 35-43.</p> |

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|---|---|---|--|
| Ratchet floater bond – bond that pays a floating rate of interest and has an adjustable cap or adjustable floor or both that move in sync with each new reset rate (i.e., interest rate equals three-month Term SOFR plus 50 basis points, subject to a lifetime 7.25% cap, collared each period between the previous rate and the previous rate plus 25 basis points). The initial rate of return for the issuer for the expected life of the bond is 3.75%. | Combination of purchased and written options that create changing caps and floors that are referenced to an interest rate index | Yes – underlying to a debt instrument is an interest rate index. It appears impossible for the embedded derivative to achieve a negative return or to double the initial rate of return of the host contract and double the market rate of return of the host contract at the same time. | No – hybrid instrument would follow the accounting prescribed in ASC 320-10-35-38 through 35-43. |
| Fixed-to-floating note – bond whose first-year coupon is fixed but subsequent coupons float based on SOFR, Treasury bills or the prime rate (i.e., interest rate equals 8.5% the first year and resets annually to SOFR, the prime rate or the Treasury bill rate thereafter) | Forward-starting interest rate swap that is referenced to an interest rate index (e.g., SOFR or prime rate) | Yes – underlying to a debt instrument is an interest rate index. It appears impossible for the embedded derivative to achieve a negative return or to double the initial rate of return of the host contract and double the market rate of return of the host contract at the same time. | No |
| Indexed amortizing note – bond that repays principal based on a predetermined amortization schedule or target value. The amortization is linked to changes in a specific mortgage-backed security index or interest rate index. The maturity of the bond changes as the related index changes. | Conditional exchange option contract that requires partial or total “early” payment of the note based on changes in a specific mortgage-backed security index or a specified change in an interest rate index | Yes – because the requirement to prepay is ultimately tied to changing interest rates, the embedded derivative is clearly and closely related to a fixed-rate note. (This assumes the return could not double the initial rate of return of the host contract and double the market rate of return of the host contract.) | No – hybrid instrument would follow the accounting prescribed in ASC 320-10-35-38 through 35-43. |
| Step-up bond – bond that provides an introductory above-market coupon and resets in the future to a rate below the forward rate projected at issuance for that reset date, or alternatively, the bond may be called in lieu of the reset in the coupon rate. The introductory coupon is not more than double the issuer’s initial rate of return for the expected life of the instrument. | Call option and a changing interest rate feature | Yes – underlying to a debt instrument is an interest rate index. The call option is related to changes in interest rates, and therefore is clearly and closely related to a fixed-rate bond. | No – hybrid instrument would follow the accounting prescribed in ASC 320-10-35-38 through 35-43. |

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|--|--|---|--|
| Credit sensitive bond – bond that has a coupon rate of interest that resets based on changes in the issuer’s credit rating | Conditional exchange option contract that entitles investor to a higher rate of interest if the credit rating of the issuer declines | Yes – creditworthiness of the debtor is clearly and closely related to the interest rate on the host debt instrument. | No |
| Third-party credit-linked note – bond that has a coupon rate of interest that resets based on changes in the credit rating of a bond that the corporation issuer owns (one of many different assets the corporation issuer owns) | Conditional exchange option contract that entitles investor to a higher rate of interest if the credit rating of the issuer declines | No – creditworthiness of the third-party entity is not clearly and closely related to the general corporate issuer’s overall creditworthiness, and therefore is not clearly and closely related to the interest rate on the debt instrument. | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |
| Inflation bond – bond with a contractual principal amount that is indexed to the inflation rate but cannot decrease below par; the coupon rate is typically lower than traditional bonds with similar maturities | Conditional exchange option contract indexed to the consumer price index or other index of inflation in the economic environment for the currency in which the bond is denominated | Yes – non-leveraged inflation rates are considered clearly and closely related to interest-bearing host debt instruments. | No |
| Disaster bond – bond that pays a coupon above that of an otherwise comparable traditional bond; however, all or a substantial portion of the principal amount is subject to loss if a specified disaster occurs | Conditional exchange option contract indexed to industry loss experience on a specified disaster (e.g., hurricane, earthquake) | No – an option contract indexed to a specified disaster experience is not clearly and closely related to an interest-bearing host debt instrument; ⁵² however, in the unusual circumstance that the embedded derivative entitles the holder of the option (i.e., issuer of disaster bond) to be compensated only for changes in the value of specified assets or liabilities for which the holder is at risk as a result of an identifiable insurable event, the embedded derivative could qualify for the insurance exception. (See section 2.5.3.) | Yes – the embedded derivative will be recorded at fair value as a separate asset on the balance sheet. |

⁵² To the extent the issuer of the disaster bond does not have an insurable risk (i.e., assets or liabilities subject to loss should the specified disaster occur), the issuer would have to bifurcate the embedded derivative and apply separate accounting under ASC 815.

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|---|--|---|--|
| Specific equity-linked bond – bond pays a coupon that is slightly below that of traditional bonds of similar maturity; however, the principal amount is linked to the stock market performance of an equity investee of the issuer. The issuer has the option to settle by delivery of the shares of the equity investee or cash. | Series of forward exchange contracts or option contracts based on an equity instrument | No – a forward or option contract for which the underlying is the price of a specific equity instrument is not clearly and closely related to an interest-bearing host debt instrument. ⁵³ | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |
| Dual currency bond – bond providing for repayment of principal in US dollars and periodic interest payments denominated in a foreign currency. The bond is issued by a US dollar functional currency entity. | There is no embedded derivative because the interest portion of the obligation must be remeasured as a transaction gain or loss under ASC 830. (See further discussion later in section 3.10.1.) | No – item is specifically excluded in ASC 815. | N/A |
| Crude oil knock-in note – bond has a 1% coupon and requires repayment of principal with upside potential based on crude oil prices. | A series of option contracts that provide the investor potential gains resulting from increases in specified crude oil prices | No – option contracts indexed to the price of crude oil (commodity) are not clearly and closely related to an interest-bearing host debt instrument. | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |
| Gold-linked bull note – bond has a fixed 3% coupon and requires repayment of principal with upside potential if the price of gold increases. | A series of option contracts that provide the investor potential gains resulting from increases in gold prices | No – option contracts indexed to the price of gold (commodity) are not clearly and closely related to an interest-bearing host debt instrument. | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |
| Short-term loan with a foreign currency option – a US lender issues a loan at an above-market interest rate. The loan is made in US dollars, the borrower's functional currency, and the borrower has the option to repay the loan in US dollars or in a fixed amount of a specified foreign currency. | Foreign currency option exposing the lender to changes in the foreign currency exchange rates during the outstanding period of the loan | No – a foreign currency underlying is not clearly and closely related to a host debt instrument. | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |

⁵³ Because the underlying referenced equity security for the bond is not the equity of the issuer, the issuer will have to bifurcate the embedded derivative and apply separate accounting under ASC 815.

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|--|-----------------------|---|--|
| Operating lease payable in a foreign currency – a US entity’s operating lease with a German lessor is payable in Japanese yen. | Foreign currency swap | No, provided the Japanese yen is not the functional currency of any substantial party to the contract. A foreign currency underlying involving a currency that is not the functional currency of either party to the contract is not clearly and closely related to a host lease instrument. (See further discussion of embedded foreign currency derivatives later in section 3.10.1, which addresses the situation whereby the derivative is denominated in a currency that matches the functional currency of one of the parties.) | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. ⁵⁴ |
| Construction contract in a foreign currency – two Mexico-domiciled entities with some US dollar transactions, but for which the Mexican peso is still the functional currency, contract to buy/sell, respectively, construction services for a new refinery, to be paid in installments of a fixed amount of US dollars. | Foreign currency swap | No – because the US dollar is not the functional currency or the local currency of any substantial party to the contract. The host instrument would be considered to be a Mexican peso-denominated contract priced at the forward peso equivalent to the forward US dollar installment amounts. | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |
| Commodity purchases in a foreign currency – a US entity enters into a contract to purchase corn from a US supplier in six months for Japanese yen. | Foreign currency swap | No – assuming the Japanese yen is not the functional currency of any substantial party to the contract. A foreign currency underlying cannot be clearly and closely related to a host commodity contract. (See further discussion of commodities that tend to transact internationally in a single currency in section 3.10.1.) | Yes – embedded derivative will be recorded at fair value on the balance sheet, with subsequent changes in fair value reported in earnings. |

⁵⁴ ASC 842 generally requires a lessee to recognize a right-of-use asset and a lease liability associated with an operating lease. For operating leases denominated in a nonfunctional currency, the lessee’s lease liability is deemed to be a monetary item governed by the provisions of ASC 830 (i.e., required to be remeasured using exchange rates at the end of each reporting period). Consistent with other monetary items that are remeasured under ASC 830, we believe that bifurcation of a foreign currency embedded derivative in an operating lease denominated in a nonfunctional currency would not be required subsequent to the adoption of ASC 842. Refer to section 3.10.1 for additional discussion.

| Hybrid instrument containing an embedded derivative | Embedded derivative | Embedded derivative clearly and closely related to host? | Bifurcation and separate accounting required for embedded derivative? |
|---|---|--|---|
| Participating mortgage – mortgage in which the investor receives a below-market interest rate and is entitled to participate in the appreciation in the market value of the project that is financed by the mortgage upon sale of the project, at a deemed sale date, or at maturity or refinancing of the loan | This feature would not be an embedded derivative because the settlement of this feature involves the price of a nonfinancial asset (real estate) of one of the parties to the contract that is not readily convertible to cash – a specific exclusion from the definition of a derivative. (See section 2.4.4.3.) | N/A | N/A |

3.10 Special embedded derivative situations

3.10.1 Foreign currency embedded derivatives

As described in ASC 815-15-15-10, embedded foreign currency derivatives should not be bifurcated from the host contract if the host contract is not a financial instrument and requires payments denominated in any of the following currencies:

- ▶ Either the functional currency or the local currency of any substantial party⁵⁵ to that contract
- ▶ The currency in which the price of the related good or service that is acquired or delivered is routinely denominated in international commerce (e.g., the US dollar for crude oil transactions)⁵⁶
- ▶ The currency used by a substantial party to the contract as if it were the functional currency because the primary economic environment in which the party operates is highly inflationary (as discussed in ASC 830-10-45-11).

The evaluation of whether a contract qualifies for any of the exceptions above should be performed only at the inception of the contract. Absent these exceptions, virtually any purchase and sale contract denominated in a foreign currency (where the host contract is not a financial instrument) would contain an embedded foreign currency derivative requiring bifurcation. However, as a result of the exceptions, these contracts would only be considered to contain a foreign currency derivative requiring bifurcation when they are significantly leveraged (as discussed below) or are not denominated in either of the parties' functional currency, local currency or the predominant international currency for that particular good or service.⁵⁷

For example, Company A (US dollar functional currency) enters into a contract to take delivery of a German-made truck from a German manufacturer (euro functional currency) in one month. The purchase price will be paid in euros. This contract does not contain a foreign currency derivative requiring bifurcation because it is denominated in the functional currency of one of the parties.

⁵⁵ The term "substantial party" should be interpreted narrowly. For example, a third-party guarantor, even if it is the parent entity of one of the contracting parties, is not considered a "substantial party" to the contract (ASC 815-15-15-14, 55-84, 55-85 and 55-91 through 55-98. However, ASC 815-15-15-12 and 55-87 through 55-90 provide guidance on when a parent entity can be a substantial party to a contract (i.e., when the parent provides the majority of resources – experience, management, knowledge, finances, infrastructure – required under the contract on behalf of its subsidiary, which is the legal party to the contract).

⁵⁶ This evaluation should be based on how similar transactions for a certain product or service are routinely structured around the world, not just in one local area (per ASC 815-15-15-14).

⁵⁷ Contracts denominated in a foreign currency can be the hedged item, even if the currency involved is the other party's functional currency.

Alternatively, if Company A (US dollar functional currency) entered into a contract to take delivery of a German-made truck from a United Kingdom distributor (whose functional currency is the British pound) for delivery in one month and denominated the contract in euros, bifurcation of a foreign currency derivative would be required. Even though the UK distributor must acquire the truck from the German manufacturer in euros, the German manufacturer is not a party to the UK distributor's contract with Company A. The contract between Company A and the UK distributor would be deemed to contain a euro derivative requiring bifurcation because the host contract is not a financial instrument and the payment is not denominated in either of the parties' functional currencies.

How we see it

In our view, ASC 815 does not require that a party to a contract confirm the functional currency of the other party. Rather, the party is required to determine the currency of the primary economic environment in which the other party operates, based on the available evidence and reasonable assumptions.

Similar to the above provisions for nonfinancial instruments, ASC 815-15-15-5 states that unsettled foreign currency transactions (e.g., foreign-denominated receivables/payables), including financial instruments, that are monetary items and have principal payments or interest payments or both denominated in a foreign currency should not be considered to contain embedded foreign currency derivatives. Rather, such monetary items are subject to ASC 830 and the transaction gains/losses related to these items must be recognized in earnings.

Because a lessee's lease obligation is deemed to be a monetary item subject to ASC 830, a lease denominated in Japanese yen would not be considered to contain a foreign currency derivative, even if the yen is not the functional currency of one of the substantial parties to the lease. Instead, the exchange gains and losses from the remeasurement of the yen denominated lease obligation and lease payments would be recognized currently in net income as required under ASC 830.⁵⁸

In addition to the parties' functional currency or the local currency requirement discussed above, the FASB has interpreted ASC 815 to require all aspects of an embedded foreign currency derivative to be clearly and closely related to the host instrument.⁵⁹ Entities are essentially precluded from exploiting the special provisions related to foreign currency by entering into foreign currency contracts based on nominal exposures with substantial derivative components due to excessive leverage or unrelated risk exposure.

For example, a contract that is significantly leveraged above the expected settlement terms (e.g., notional amount of 100,000 euros when the expected settlement is 1,000 euros) violates the "boundary" notion related to the "clearly and closely related" concept earlier in this chapter and the excess notional amount (i.e., 99,000 euros) would be bifurcated from the host and considered a derivative instrument.

However, an embedded foreign currency net purchased or zero-premium option that merely introduces a cap and/or a floor on the functional currency equivalent price under a nonfinancial contract eligible for the ASC 815 foreign currency exclusion is not required to be bifurcated from the host nonfinancial instrument contract provided all other criteria of ASC 815 are met.⁶⁰ This exception does not apply to embedded foreign currency caps and/or floors that represent written or net written options.

⁵⁸ For lessees that have not yet adopted ASC 842, *Leases*, this guidance would only apply to capital lease obligations. Prior to the adoption of ASC 842, lessees would look to the guidance in ASC 815-15-15-10 to determine whether an embedded foreign currency derivative would be bifurcated from an operating lease. Subsequent to the adoption of ASC 842, when a lessee has made an accounting policy election not to apply the recognition requirements in ASC 842 to leases with a term of 12 months or less in accordance with the guidance in ASC 842-20-25-2 through 25-3, the lessee would also look to the guidance in ASC 815-15-15-10 to determine whether an embedded foreign currency derivative would be bifurcated from such lease contract.

⁵⁹ See ASC 815-15-15-10, 55-99 and 55-100.

⁶⁰ See ASC 815-15-15-15 through 15-19 and 55-240 through 55-243.

3.10.2 Purchase contracts with a selling price subject to a cap and a floor

A manufacturer might enter into a long-term purchase contract for a specified quantity of certain raw materials or commodities. The pricing terms call for the goods to be delivered at the then-current list price but within a specified range. For instance, the goods must be sold to the manufacturer at a price no lower than \$40 per ton and no higher than \$60 per ton, no matter what the current list price might be. From the manufacturer's perspective, this contract essentially contains two embedded options: a purchased call at \$60 per ton and a written put at \$40 per ton. However, these options would not need to be bifurcated and accounted for separately. The economic characteristics and risks of the two options are clearly and closely related to the purchase contract because the options are indexed to the purchase price of the asset that is the subject of the purchase contract.⁶¹

3.10.3 Calls and puts in debt instruments

3.10.3.1 Freestanding calls and puts

The notion of an embedded derivative in a hybrid instrument refers to provisions incorporated into a single contract, and not to provisions in separate contracts between different counterparties. Likewise, two separate contracts with the same counterparty, but that can be legally settled independent of one another, should be analyzed separately, unless they have been entered into separately in an attempt to circumvent the provisions of ASC 815.⁶²

Therefore, a put or call option that is added to a debt instrument by a third party contemporaneously with or subsequent to the issuance of a debt instrument should be separately accounted for as a derivative under ASC 815; it must be reported at fair value with changes in value recognized currently in earnings unless designated in a qualifying hedging relationship. A call or put option that is added or attached to an existing debt instrument by another party results in the investor having different counterparties for the option and the debt instrument and, thus, the option should not be considered an embedded derivative.⁶³

Furthermore, if a debt instrument includes in its terms an option feature that is explicitly transferable independent of the debt instrument and thus is potentially exercisable by a party other than either the issuer of the debt instrument (the debtor) or the holder of the bond (the investor), the option should be considered an attached freestanding option, rather than an embedded derivative, by both the writer and the holder of the option.⁶⁴

3.10.3.2 Embedded calls and puts

Calls and puts that can accelerate the repayment of principal on debt must be evaluated to determine whether they require bifurcation from the debt host contract. Because most put and call options embedded in a debt instrument meet the definition of a derivative and do not qualify for a scope exception to derivative accounting in ASC 815, the determination of whether those options require bifurcation is based, primarily, on the evaluation of whether they are clearly and closely related to the host debt contract.

To assess whether the economic characteristics and risks of embedded put and call options are clearly and closely related to the debt host contract, the four-step decision sequence in ASC 815-15-25-42 through 25-43 and ASC 815-15-55-13, and the guidance in ASC 815-15-25-26 through 25-29, if such paragraphs are applicable to the embedded feature, is applied.

⁶¹ See ASC 815-15-25-19 and 55-114 through 55-116.

⁶² ASC 815-10-15-9 provides the following indicators should be considered in the aggregate and, if present, should cause the transactions to be viewed as a unit and not separately: (1) the transactions were entered into contemporaneously and in contemplation of one another, (2) the transactions were executed with the same counterparty or structured through an intermediary, (3) the transactions relate to the same risk and (4) there is no apparent economic need or substantive business purpose for structuring the transactions separately that could not also have been accomplished in a single transaction.

⁶³ See ASC 815-10-15-6, 55-67 through 55-72 and 815-15-25-2.

⁶⁴ See ASC 815-10-15-5, ASC 815-10-15-7 and ASC 815-10-55-3.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

Call Options and Put Options on Debt Instruments

815-15-25-42

The following four-step decision sequence shall be followed in determining whether call (put) options that can accelerate the settlement of debt instruments shall be considered to be clearly and closely related to the debt host contract:

Step 1: Is the amount paid upon settlement (also referred to as the payoff) adjusted based on changes in an index? If yes, continue to Step 2. If no, continue to Step 3.

Step 2: Is the payoff indexed to an underlying other than interest rates or credit risk? If yes, then that embedded feature is not clearly and closely related to the debt host contract and further analysis under Steps 3 and 4 is not required. If no, then that embedded feature shall be analyzed further under Steps 3 and 4.

Step 3: Does the debt involve a substantial premium or discount? If yes, continue to Step 4. If no, further analysis of the contract under paragraph 815-15-25-26 is required, if applicable.

Step 4: Does a contingently exercisable call (put) option accelerate the repayment of the contractual principal amount? If yes, the call (put) option is not clearly and closely related to the debt instrument. If not contingently exercisable, further analysis of the contract under paragraph 815-15-25-26 is required, if applicable.

In Step 3, the guidance requires an evaluation of whether the debt “involves” a substantial premium or discount. The guidance does not ask whether the debt was “issued at” a substantial premium or discount. As a result, we believe the FASB intended the term “involves” to be interpreted broadly. Therefore, just as debt has a substantial discount if it has a par of \$100, was issued at \$90 and is puttable at par, so too does debt involve a substantial discount if it has a par of \$100, was issued at \$100 and is puttable at \$110.

In addition, in assessing whether a substantial premium or discount exists, we believe that a preparer should consider all of the units of account that are accounted for as part of the legal instrument. The amounts associated with those units of account that would be received upon exercise of the put or call should be considered in assessing whether a premium or discount is substantial. For example, assume an entity issued convertible debt that has a separately accounted-for conversion feature (e.g., because it is bifurcated as a derivative), the “discount” that is created by the separate accounting for the conversion feature is not considered part of the call/put premium or discount if the discount/premium can't be received by the holder in addition to the conversion right.

In many scenarios, the exercise of a put/call in a convertible debt instrument would automatically cancel the conversion rights of the instrument. As a result, the discount created by the accounting model calling for separation of the conversion feature would be ignored for purposes of determining whether the debt involves a substantial premium or discount.

ASC 815-15-55-13 provides the following examples to illustrate the application of this guidance:

| Illustration 3-4: Examples from ASC 815-15-55-13 illustrating the four-step process from ASC 815-15-25-42 | | | | |
|---|--|--|---|--|
| Example | Indexed payoff? (steps 1 and 2) | Substantial discount or premium? (step 3) | Contingently exercisable? (step 4) | Embedded option clearly and closely related? |
| 1. Debt that is issued at a substantial discount is callable at any time during its 10-year term. If the debt is called, the investor receives the par value of the debt plus any unpaid and accrued interest. | No | Yes | No | The embedded call option is clearly and closely related to the debt host contract because the payoff is not indexed, and the call option is not contingently exercisable. |
| 2. Debt that is issued at par is callable at any time during its term. If the debt is called, the investor receives the greater of the par value of the debt or the market value of 100,000 shares of Company XYZ common stock (an unrelated company). | Yes, based on an equity price. | N/A. Analysis not required. | N/A. Analysis not required. | The embedded call option is not clearly and closely related to the debt host contract because the payoff is indexed to an equity price. |
| 3. Debt that is issued at par is puttable if the S&P 500 increases by at least 20%. If the debt is put, the investor receives the par amount of the debt adjusted for the percentage increase in the S&P 500. | Yes, based on an equity index (S&P 500). | N/A. Analysis not required. | N/A. Analysis not required. | The embedded put option is not clearly and closely related to the debt host contract because the payoff is indexed to an equity price. |
| 4. Debt that is issued at a substantial discount is puttable at par if LIBOR either increases or decreases by 150 basis points. | No | Yes | Yes, contingent on a movement of LIBOR of at least 150 basis points. | The put option is not clearly and closely related to the debt host contract because the debt was issued at a substantial discount and the put option is contingently exercisable. |
| 5. Debt that is issued at a substantial discount is puttable at par in the event of a change in control. | No | Yes | Yes, contingent on a change in control. | The put option is not clearly and closely related to the debt host contract because the debt was issued at a substantial discount and the put option is contingently exercisable. |
| 6. Zero-coupon debt is issued at a substantial discount and is callable in the event of a change in control. If the debt is called, the issuer pays the accreted value (calculated per amortization table based on the effective interest rate method). | No | Yes | Yes, contingent on a change in control, but since the debt is callable at accreted value, the call option does not accelerate the repayment of principal. | The call option is clearly and closely related to the debt host contract. Although the debt was issued at a substantial discount and the call option is contingently exercisable, the call option does not accelerate the repayment of principal because the debt is callable at the accreted value. |

| Example | Indexed payoff? (steps 1 and 2) | Substantial discount or premium? (step 3) | Contingently exercisable? (step 4) | Embedded option clearly and closely related? |
|--|--|---|------------------------------------|--|
| 7. Debt that is issued at par is puttable at par in the event that the issuer has an initial public offering. | No | No | N/A. Analysis not required. | The embedded put option is clearly and closely related to the debt host contract because the debt was issued at par (not at a substantial discount) and is puttable at par. Paragraph 815-15-25-26 does not apply. |
| 8. Debt that is issued at par is puttable at par if the price of the common stock of Company XYZ (a company unrelated to the issuer or investor) changes by 20%. If the debt is put, the investor will be repaid based on the value of Company XYZ's common stock. | Yes, based on an equity price (price of Company XYZ's common stock). | N/A. Analysis not required. | N/A. Analysis not required. | The embedded put option is not clearly and closely related to the debt host contract because the payoff is indexed to an equity price. |
| 9. Debt is issued at a slight discount and is puttable if interest rates move 200 basis points. If the debt is put, the investor will be repaid based on the S&P 500. | Yes, based on an equity index (S&P 500). | N/A. Analysis not required. | N/A. Analysis not required. | The embedded put option is not clearly and closely related to the debt host contract because the payoff is based on an equity index. |

3.10.4

Contingent interest features

Some debt instruments contain features that require additional interest to be paid to the holder if certain events occur (e.g., the issuer fails to file SEC reports or fails to meet certain financial covenants, or the price of its common stock exceeds a certain target).

Contingent interest features generally meet the definition of a derivative. If the economic characteristics of a contingent interest feature are not clearly and closely related to those of the debt host instrument, the contingent interest feature requires bifurcation from the host instrument. For example, a contingent interest feature that increases the interest rate on the instrument if the market price of the issuer's common stock falls (or rises) to a specified level should be bifurcated and separately accounted for pursuant to ASC 815 as the underlying (i.e., the issuer's common stock price) is not clearly and closely related to the debt host in a convertible debt instrument.

Another common example of a contingent interest feature is one requiring additional interest on a failure to comply with a debt covenant or in the event of a default, as defined in the debt agreement. Generally, an interest rate that adjusts on the creditworthiness of the issuer is clearly and closely related to a debt host instrument as discussed in ASC 815-15-25-46, which states:

The creditworthiness of the debtor and the interest rate on a debt instrument shall be considered to be clearly and closely related. Thus, for debt instruments that have the interest rate reset in the event of any of the following conditions, the related embedded derivative shall not be separated from the host contract:

- a. Default (such as violation of a credit-risk-related covenant)
- b. A change in the debtor's published credit rating
- c. A change in the debtor's creditworthiness indicated by a change in its spread over US Treasury bonds

However, some default interest provisions are still required to be bifurcated. The guidance stresses that the default should be a violation of a credit-risk-related covenant and not simply labeled a “default” provision. Many covenants are not directly credit risk related. Therefore, the nature of the underlying trigger for the contingent interest should be carefully evaluated.

In some convertible debt instruments, the trigger for the contingent interest is expressed in terms of the market price of the entire hybrid instrument (such as a \$120 market price on a \$100 par convertible bond). In these instances, although the market price is affected by the interest rate and credit risk of the issuer, it is also affected by the equity share price. In other cases, it may be even more clear that the feature is not clearly and closely related to the debt host because the contingent interest may be triggered based solely on the issuer’s share price (e.g., whenever the share price exceeds 125% of the conversion price).

A contingently convertible debt instrument that provides holders with additional interest equal to the fair value of any dividends received by the holders of the stock into which the instrument may be converted should be analyzed to determine whether this contingent interest feature constitutes an embedded derivative requiring bifurcation under ASC 815. As the underlying (i.e., dividend payments) is not clearly and closely related to the debt host instrument, the other criteria for bifurcation, including the definition of a derivative, should be evaluated. This contingently convertible instrument should also be evaluated as a potential participating security for earnings per share purposes pursuant to ASC 260.

While less frequent, some contingent interest features may qualify for an exception to derivative accounting. For example, if a debt instrument required additional interest only if the issuer’s sales volume failed to reach a specified threshold, that feature may meet the scope exception in ASC 815-10-15-59. If a contingent interest feature is not required to be bifurcated pursuant to ASC 815, interest expense related to the contingent feature generally should be recognized pursuant to the provisions in ASC 470-10-25-3 through 25-4 and 35-4 (the indexed debt guidance) or ASC 450 depending on the facts and circumstances. Judgment is required when determining whether the trigger is an index or a contingency.

The following example illustrates the accounting for a contingent interest feature:

Illustration 3-5: Convertible bonds with a contingent interest feature

On 1 January 20X4, Company A issues at par a series of convertible bonds with a face amount of \$1,000 that mature 31 December 20Y4. The bonds have a yield to maturity of 2% per annum, computed semiannually.

Each \$1,000 par value bond is convertible into 10 shares of the issuer’s common stock for a conversion price of \$100 at any time (assume the conversion option is not bifurcatable).

Beginning 31 March 20X4, if the average market price of Company A’s common stock is equal to or greater than 125% of the conversion price of the bonds (i.e., share price is \$125) for any 20 out of the last 30 trading days before such date or any 1 January or 1 July thereafter, the coupon rate will be increased to 2.5%.

The contingent interest feature in this example meets the definition of a derivative and is indexed to the value of the common stock, which is not related to the economic characteristics of the debt host. Additionally, this feature is not eligible for the exception in ASC 815-10-15-74(a) used for a conversion option because the contingent interest feature, if freestanding, would not be classified in stockholders’ equity as it is settled in cash. Accordingly, the contingent interest feature is considered an embedded derivative that should be bifurcated from the host instrument.

The contingent interest feature should be bifurcated individually at fair value (or as a component of a single compound derivative if other embedded features require bifurcation). That fair value measurement should consider the volatility of the issuer's stock and likelihood the share price would exceed the \$125 trigger as required under the instrument. It is measured in subsequent periods at fair value with changes in fair value recognized in earnings.

3.10.5 Embedded features not bifurcated from the host debt instrument

The accounting for embedded features that are not bifurcated from debt hosts is generally based on the nature of the feature. Following are common examples:

- ▶ Contingent interest – A non-bifurcated contingent interest feature in a debt instrument is accounted for pursuant to the provisions of ASC 450, or the provisions of ASC 470-10-25-3 through 25-4 and 35-4, depending on the facts and circumstances.
- ▶ Call option – A non-bifurcated call feature in debt that is callable (prepayable) by the issuer generally is not accounted for until the debt is called, at which time extinguishment accounting is applied.
- ▶ Put option – A non-bifurcated put feature in debt that is puttable (redeemable) at par by the investor generally is not accounted for until the debt is redeemed, at which time extinguishment accounting is applied. However, the put feature should generally be considered in determining the amortization period for premiums, discounts or deferred debt issuance costs.

3.10.6 Convertible debt and other convertible instruments

Instruments with conversion features continue to be popular, often as a result of a perception of “cheaper” financing. Convertible debt pays a below-market interest rate to investors in exchange for providing them an embedded call option to convert the debt instrument into the equity of the issuer at an established conversion rate. The investor has purchased (and the issuer has written) the call option, paying the premium by forgoing a portion of what would be a market interest rate, thus resulting in the below-market interest rate.

Similarly, conversion features can also be found in stock. Convertible stock provides the investor the ability to convert one equity stock of the issuer into other stock of the same issuer (or of a subsidiary of the issuer or the issuer's parent), usually at some predetermined ratio (which may be adjusted in certain circumstances). The conversion option (or forward in the case of mandatorily convertible stock) is an embedded call option (or forward to sell) written on the underlying stock by the issuer to the investor and is more often found in preferred stock than common stock.

3.10.6.1 Issuer's accounting

In general, for the issuer, convertible debt or convertible preferred stock (i.e., the hybrid instrument) is first evaluated under ASC 480. (Refer to Appendix A in our FRDs, *Issuer's accounting for debt and equity financings (before the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)* and *Issuer's accounting for debt and equity financings (after the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)*, for further discussion on ASC 480.)

If a convertible debt or convertible preferred stock is in the scope of ASC 480, an entity would classify the instrument as a liability and apply the measurement guidance in ASC 480. If it is not in the scope of ASC 480, the measurement of the hybrid instrument will be based on other relevant GAAP. The hybrid instrument's legal form will generally determine its classification. For example, a convertible debt instrument will be classified as a liability, and convertible preferred stock will be classified as equity (or perhaps temporary equity for SEC registrants).

If the entire instrument is required to be subsequently measured at fair value through earnings (e.g., in accordance with ASC 480 or if the fair value option is applied), no embedded features would need to be analyzed for bifurcation. If the subsequent measurement is other than fair value through earnings, an analysis for bifurcation of the embedded feature (e.g., conversion option) is required.

Conversion features should be evaluated under ASC 815-15-25-1 to determine whether bifurcation is required. As part of the assessment, the nature of the host instrument that contains the embedded conversion feature must be determined. We generally believe the host instrument in convertible debt is a non-convertible debt instrument that pays the issuer's market interest rate appropriate for the contractual life of the instrument. The economic characteristics of a debt host instrument and of equity call options are not clearly and closely related. This is equally applicable if the host of a convertible preferred stock instrument is considered to be debt-like. On the other hand, if the host of a convertible preferred stock instrument is considered to be equity-like, a conversion feature would generally be considered clearly and closely related to that host.

When the subsequent measurement of the convertible instrument is other than fair value through earnings and the conversion feature is not clearly and closely related to the host contract, an assessment is required under ASC 815-15-25-1(c) to determine whether the conversion feature would, if it were a separate instrument, meet the definition of a derivative instrument in ASC 815.

If the conversion feature meets the criteria for bifurcation under ASC 815-15-25-1, including meeting the definition of a derivative, the scope exception in ASC 815-10-15-74(a) (i.e., contracts indexed to the reporting entity's own stock and classified in stockholders' equity), as discussed in section 2.5.10, may apply. That is, a conversion feature that meets scope exception in ASC 815-10-15-74(a) does not require bifurcation. (Refer to Appendix B of our FRDs, *Issuer's accounting for debt and equity financings (before the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)* and *Issuer's accounting for debt and equity financings (after the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)*, for further details.) If a conversion feature does not qualify for the scope exception under ASC 815-10-15-74(a), it would require bifurcation and be separately accounted for as a derivative.

3.10.6.2

Investor's accounting

Unless an investor in convertible debt accounts for the instrument at fair value through earnings (e.g., the investor is an investment company that carries its investments at fair value in accordance with ASC 946, the instrument is classified as a trading asset under ASC 320, or the entity elects to apply the fair value option of ASC 815-15 or ASC 825-10), it would bifurcate its embedded purchased option contract from the host debt instrument and account for the equity option pursuant to ASC 815 in nearly all scenarios. One exception is when the terms of the conversion do not allow for a cash settlement and the common stock delivered on conversion is privately held (that is, not readily convertible to cash). As such, this embedded equity call option would not be net settleable under ASC 815-10-15-99 through 15-100, ASC 815-10-15-110, ASC 815-10-15-119 through 15-120, and ASC 815-10-15-128; therefore, it would lack one of the required characteristics of a derivative.

3.11 Compound embedded derivatives

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

Compound Embedded Derivative

815-15-25-7

If a hybrid instrument contains more than one embedded derivative feature that would individually warrant separate accounting as a derivative instrument under paragraph 815-15-25-1, those embedded derivative features shall be bundled together as a single, compound embedded derivative that shall then be bifurcated and accounted for separately from the host contract under this Subtopic unless a fair value election is made pursuant to paragraph 815-15-25-4.

815-15-25-8

An entity shall not separate a compound embedded derivative into components representing different risks (for example, based on the risks discussed in paragraphs 815-20-25-12[f] and 815-20-25-15[i]) and then account for those components separately.

815-15-25-9

If a compound embedded derivative comprises multiple embedded derivative features that all involve the same risk exposure (for example, the risk of changes in market interest rates, the creditworthiness of the obligor, or foreign currency exchange rates), but those embedded derivative features differ from one another by including or excluding optionality or by including a different optionality exposure, an entity shall not separate that compound embedded derivative into components that would be accounted for separately.

815-15-25-10

If some of the embedded derivative features in a hybrid instrument are clearly and closely related to the economic characteristics and risks of the host contract, those embedded derivative features shall not be included in the compound embedded derivative that is bifurcated from the host contract and separately accounted for.

The treatment under ASC 815 for compound derivatives (i.e., a derivative contract containing another embedded derivative) is quite different from that of derivatives embedded in a host contract. Embedded derivatives, unless they are clearly and closely related to the host contract, are bifurcated from the host contract and accounted for separately. In contrast, ASC 815 prohibits separating a compound derivative into components representing different elements. If a hybrid instrument has more than one embedded derivative feature that would individually warrant separate accounting as a derivative, those embedded derivative features must be bundled together as a single compound embedded derivative, which would then be bifurcated and accounted for separately from the host instrument.⁶⁵

⁶⁵ See ASC 815-15-25-7 through 25-10.

3.12 Evaluating interests in securitized financial assets for bifurcation

3.12.1 The bifurcation model for interests in securitized financial assets

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

Interests in Securitized Financial Assets—Holder’s Accounting

815-15-25-11

Paragraph 815-10-15-11 explains that the holder of an interest in securitized financial assets (other than those identified in paragraphs 815-10-15-72 through 15-73) shall determine whether the interest is a freestanding derivative instrument or contains an embedded derivative that under this Section would be required to be separated from the host contract and accounted for separately.

815-15-25-12

That determination shall be based on an analysis of the contractual terms of the interest in securitized financial assets, which requires understanding the nature and amount of assets, liabilities, and other financial instruments that compose the entire securitization **transaction**.

815-15-25-13

A holder of an interest in securitized financial assets shall obtain sufficient information about the payoff structure and the payment priority of the interest to determine whether an embedded derivative exists.

The guidance requires the holder of an interest in securitized financial assets to determine, based on an analysis of the contractual terms of its interest, whether the interest is a freestanding derivative or contains an embedded derivative that is required to be separated into a host contract and a derivative instrument. This analysis requires a thorough understanding of the nature and amount of assets, liabilities and other financial instruments (such as derivatives, financial guarantees and other guarantees that do not qualify for the financial guarantee exception of ASC 815-10-15-58) that compose the entire securitization transaction.

The Board believes that sufficient evidence for evaluating how ASC 815-15-05-1, 25-1, 25-14 and 35-2A and 815-15-25-26 through 25-29 affect the accounting can generally be obtained by analyzing the arrangements that govern a payoff structure and the subordination status of the instrument. Such analysis should include understanding the nature and amount of assets and liabilities and other financial instruments comprising the securitization transaction. Often, the formal “terms” of the interests will provide the necessary information, through the certificate, the indenture, the prospectus, the pooling and servicing agreement, and accompanying documents.

However, if such information proves insufficient to determine whether bifurcation is required, a purchaser of an interest in securitized financial assets would be obligated to obtain sufficient detailed information to complete the analysis. Presumably, a transferor who has received an interest in an ASC 860 transaction has more intimate knowledge of the structure and may not have to put forth as much effort to obtain such information as a purchaser would.

Once a sufficient understanding of the nature and amount of assets and liabilities that compose the entire securitization structure has been obtained, the bifurcation analysis includes the following steps:

- ▶ Determining whether the embedded feature is exempt from further analysis as an interest-only or a principal-only strip (see section 3.12.1.1)
- ▶ Determining whether the embedded feature is exempt from further analysis as the transfer of credit risk that is only in the form of subordination of one financial instrument to another (see section 3.12.1.2)
- ▶ Analyzing those embedded features that require further analysis to determine whether they are clearly and closely related to the nature of the host instrument (see section 3.12.1.3)

3.12.1.1

Exception for interest-only and principal-only strips

The original paragraph 14 of Statement 133 stated that interest-only and principal-only strips need not be evaluated for embedded derivatives. This paragraph, as amended by Statement 155 and ultimately included in the Codification, intends the exemption to apply to only the simplest and most direct separations of contractual interest cash flows and principal cash flows, preserving but narrowing the old exemption.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Scope and Scope Exceptions

Certain Interest-Only Strips and Principal-Only Strips

815-10-15-72

An interest-only strip or principal-only strip is not subject to the requirements of this Subtopic provided the strip has both of the following characteristics:

- a. It represents the right to receive only a specified proportion of the contractual interest cash flows of a specific debt instrument or a specified proportion of the contractual principal cash flows of that debt instrument.
- b. It does not incorporate any terms not present in the original debt instrument.

There is no conceptual basis for such an exemption other than that it simplifies ASC 815 for a narrow set of instruments.

ASC 815-10-15-73 provides the following examples:

- ▶ An allocation of a portion of the interest or principal cash flows of a specific debt instrument as reasonable compensation for stripping the instrument or to provide “adequate compensation” to a servicer (as defined in ASC 860) would meet the intended narrow scope of this exception.
- ▶ An allocation of a portion of the interest or principal cash flows of a specific debt instrument to provide for a guarantee of payments, for servicing in excess of adequate compensation or for any other purpose would not meet the intended narrow scope of this exception.

Generally, interest-only and principal-only strips in securitized financial assets should not meet the intended narrow scope of this exception. (For example, an interest-only strip or principal-only strip would not qualify for the exception if a portion of the interest or principal cash flows was allocated to provide for a guarantee of payments. Thus, an interest in a guaranteed mortgage securitization as defined in ASC 860 in the form of an interest-only strip or principal-only strip would be subject to the bifurcation requirements of ASC 815 because some of the cash flows in the underlying mortgages have been allocated to pay the guarantee fee.)

How we see it

This exception for interest-only and principal-only strips, when its use is qualified, could be valuable to constituents, because without the exception, it is likely both types of instruments would fail ASC 815-15-25-26(a). Investors in interest-only strips and principal-only strips make certain assessments about the cash flows they expect to receive over time, and those assessments influence the amount they are willing to invest at acquisition. Those initial assessments are based on certain assumptions about the prepayment speeds of the underlying loans, bonds or other instruments from which the strips are created. For example, once an underlying instrument prepays, the interest cash flows that inure from the portion of that instrument stop. If prepayments speed up to levels not anticipated at the time of investment, the cash flows expected by the investor in an interest-only strip will not occur in full, and the investor might not recover substantially all of its initial recorded investment.

However, many such strips will not be exempted, and we believe many constituents will choose to employ the fair value option for these instruments, avoiding the complexity of defining and identifying a host contract and then bifurcating out an interest rate derivative.

3.12.1.2 Exception for concentrations of credit risk

Securitization structures frequently issue multiple tranches of beneficial interests in the securitized financial assets to investors. The legal subordination of individual tranches economically redistributes the credit risk inherent in the assets of the securitization structure among the holders of beneficial interests in the securitized assets.

ASC 815-15-15-9 provides a scope exception from bifurcation for certain concentrations of credit risk in the form of subordination. Specifically, only embedded credit derivatives resulting *solely* from the transfer of credit risk between the tranche holders that creates the subordination need not be analyzed for potential bifurcation from the host contract and separate accounting as a derivative. All other embedded credit derivative features are subject to the application of ASC 815-10-15-11 and 815-15-25, which provide guidance on when embedded derivative features should be separated from the host contract and accounted for as a derivative instrument. ASC 815-15-15-9, as amended, explicitly provides that the following circumstances do not qualify for the scope exception:

- ▶ Circumstances in which the holder of a beneficial interest (that is, from a specific tranche) is exposed to the possibility (however remote) of being required to make potential future payments (not merely receive reduced cash inflows)
- ▶ Embedded derivative features relating to another type of risk (including another type of credit risk) present in the securitized financial instruments – we understand that this paragraph should never be applied to exempt interest rate, foreign currency and other derivatives that exist between tranches of a securitization because such risks are not present in the nonderivative assets of the special-purpose entity (SPE)
- ▶ An interest in a single-tranche securitized vehicle that exposes the beneficial interest holder to credit risk that is not inherent in the nonderivative assets of the SPE

The illustrations in ASC 815-15-55 identify different credit-risk-related features that are typically embedded in the beneficial interests of a structured security such as a collateralized debt obligation (CDO) or synthetic CDO and clarify that only the “waterfall” credit feature created by allocating the credit exposures between tranches due to subordination of the beneficial interests in the structure is exempt from further bifurcation analysis under ASC 815-10-15-11 and 815-15-25.

3.12.1.3 ‘Clearly and closely related’ principles and rules

ASC 815-15-25-11 through 25-13 provides a principle by which a holder of a beneficial interest in a securitization structure could determine whether an embedded derivative feature is clearly and closely related to the host instrument. The principle involves determining whether the financial instruments held by the SPE provide the necessary cash flows to pay the contractual obligations due to the holder of a beneficial interest in that securitization structure. This principle is articulated in the illustrations of ASC 815-15-55-222 through 55-226D.

There are two specific scenarios, however, for which the Board essentially established a “clearly and closely related” rule to be followed in lieu of the principle described in ASC 815-15-25-11 through 25-13:

- ▶ Freestanding written credit derivatives within a securitization structure – if a new credit risk is added to a beneficial interest by a written credit default swap in the securitization structure, the related embedded credit derivative feature is not clearly and closely related to the host contract (see Cases AA and AB in ASC 815-15-55-226C and 55-226D, respectively).

- ▶ Beneficial interest exposes an investor to making potential payments – if a beneficial interest exposes an investor to making potential payments (not merely experiencing a potential reduction in future cash inflows), that embedded feature is not clearly and closely related to the host contract (see ASC 815-15-25-51A). (Structures meeting this scenario likely meet the first scenario as well, so this scenario may be redundant.)

For those embedded features in a beneficial interest of securitized financial assets, other than those specifically deemed not “clearly and closely related” (as discussed above), an entity will need to perform a thorough analysis of the structure to determine whether the feature is required to be bifurcated from the host instrument. That analysis involves determining whether the financial instruments held by the SPE provide the necessary cash flows to pay the contractual obligations due to the holder of a beneficial interest in that securitization structure.

The following examples, based on the illustrations in ASC 815-15-55, demonstrate how an entity may evaluate whether there are any embedded derivatives requiring bifurcation:

Illustration 3-6: Dollar-denominated variable-rate interest issued by an SPE that holds yen-denominated variable-rate bonds and a cross-currency swap to pay yen and receive dollars (based on Case V in ASC 815-15-55-222)

If the variable rate reflects a current market rate and the notional amounts of the bonds and the swap correspond to the notional amount of the interests issued, the dollar-denominated variable-rate interest would not have an embedded derivative requiring bifurcation because the terms of the beneficial interest do not indicate an embedded derivative and the financial instruments held by the entity provide the necessary cash flows.

Said differently, the cross-currency risk presented by the differing currency denominations of the bond assets and the interests issued by the SPE is fully off-loaded to the cross-currency swap counterparty and therefore does not expose the beneficial interest holder to foreign currency risk.

Illustration 3-7: Variable-rate interest issued by an SPE that holds fixed-rate bonds and a pay-fixed, receive-variable interest rate swap (based on Case W in ASC 815-15-55-223)

The variable-rate interest would not have an embedded derivative requiring bifurcation because the terms of the beneficial interest do not indicate an embedded derivative and the financial instruments held by the entity provide the necessary cash flows.

Said differently, the interest rate risk presented by the pairing of fixed-rate assets with variable-rate interests issued by the SPE is fully off-loaded to the interest rate swap counterparty and therefore does not expose the holder to interest rate risk.

However, if the notional amounts of the fixed-rate bonds and the variable interest rate swap do not match, or are at risk of not matching because of the possibility of different amortization speeds, the variable-rate interest would have to be evaluated for an embedded derivative under ASC 815-15-25-26 because the interest rate swap held by the entity might not provide the necessary cash flows (e.g., fully off-load the entire interest rate risk to the swap counterparty).

Illustration 3-8: Securitization involving subordination and variable-rate tranches (based on Case X in ASC 815-15-55-224 and 55-225)

Assume a special-purpose entity that holds non-prepayable fixed-rate bonds issues (1) a senior variable-rate financial instrument (with a limited exposure to credit losses on the fixed-rate bonds), (2) a subordinated financial instrument that is entitled to 90% of the difference between the fixed rate received from the bonds and the variable rate paid to the senior financial instrument (with a limited exposure to credit losses on the fixed-rate bonds) and (3) a residual financial instrument that is entitled to the remainder of the fixed-rate payments from the bonds after any credit losses on the fixed-rate bonds.

The senior interest (Instrument #1) would not have an embedded derivative requiring bifurcation. Specifically, the embedded credit feature (i.e., the subordination of credit risk between the tranche holders) is exempt from potential bifurcation under ASC 815-15-15-9. In addition, the embedded interest rate feature (i.e., the receipt of a variable rate of interest when the underlying assets are fixed-rate bonds) is clearly and closely related to the host instrument because under ASC 815-15-25-26 it (1) cannot be settled in such a way that the investor would not recover substantially all of its investment and (2) does not violate the double/double test in ASC 815-15-25-26(b).

The subordinated financial instrument (Instrument #2) would have an embedded derivative requiring bifurcation. Specifically, the embedded credit feature (i.e., the subordination of credit risk between the tranche holders) is exempt from potential bifurcation under ASC 815-15-15-9. However, the embedded interest rate feature (i.e., the receipt of 90% of the differential between the fixed rate received on the bonds and the variable rate paid to the senior interest) is not clearly and closely related to the host instrument because under ASC 815-15-25-26 there could be a shortfall of cash flow after the senior interest holders are paid, due to the adverse changes in interest rates, and therefore the investor in the subordinated interest might not recover substantially all of its initial recorded investment in the subordinated interest.

Said differently, the interest rate risk presented by the uneven pairing of fixed-rate assets with senior floating-rate interests issued by the SPE appears to be primarily off-loaded to the subordinated interest, such that the subordinated interest would likely be required to bifurcate an interest rate swap from the debt host financial instrument. In bifurcating the embedded interest feature, the analysis would need to consider the effect of the “waterfall” subordination provisions (as it affects the cash flows resulting from the bifurcated interest rate feature) even though a separate derivative is not recognized for the embedded credit feature.

The residual financial instrument (Instrument #3) would have an embedded derivative requiring bifurcation. The residual instrument bears the credit risk of the entire securitization structure, but ASC 815-15-15-9 exempts such a concentration of credit risk from being considered an embedded derivative requiring bifurcation. However, the residual instrument, like Instrument #2, would have an embedded interest rate derivative requiring bifurcation. The residual interest holders receive the residual portion of the fixed cash flows, which have the same profile as the entity’s assets, but because the subordinated financial instrument holders have absorbed only 90% – not 100% – of the interest rate risk, the residual holders must absorb the remainder.

Illustration 3-9: A securitization involving subordination and fixed-rate tranches (based on Case Y in ASC 815-15-55-226 and 55-226A)⁶⁶

Assume a special-purpose entity that holds prepayable fixed-rate loans issues (1) a senior, fixed-rate financial instrument that is entitled to receive fixed-rate interest payments and all prepayments and repayments of principal amounts received from the debtors (with a limited exposure to credit losses on the fixed-rate loans); (2) a subordinated financial instrument that is entitled to receive fixed-rate interest payments and prepayments and repayments of principal amounts received from the debtors only after the holders of the senior financial instrument have been paid in full (with a limited exposure to credit losses on the fixed-rate loans); and (3) a residual financial instrument that is entitled to the remainder of the fixed-rate payments from the loans and the prepayments and repayments of principal amounts received from the debtors only after the holders of the senior and subordinated financial instrument have been paid in full. All credit losses on the fixed-rate loans are absorbed first by the holders of the residual financial instrument, next by the subordinated financial instrument and last by the senior instrument.

None of the tranches in the example would have an embedded derivative requiring bifurcation. Specifically, the embedded credit feature (i.e., the subordination of credit risk between the tranche holders) is exempt from potential bifurcation under ASC 815-15-15-9.

Illustration 3-10: Partially funded synthetic collateralized debt obligation with multiple tranches (based on Case Z in ASC 815-15-55-226B)

Assume a special-purpose entity that holds guaranteed investment contracts and that wrote a credit default swap on a referenced credit to a third party, with a significantly larger notional amount than the guaranteed investment contracts, issues various tranches of credit-linked beneficial interests to investors that differ in terms of priority and in their potential obligation to fund any losses on the credit default swap. That is, if credit losses greater than the value of the guaranteed investment contracts are incurred under the credit default swap, the investors in each of the tranches might be required to provide additional funds to the SPE, which would then pass those funds on as payments to the holder of the credit default swap.

Each of the tranches in the example would have an embedded derivative requiring bifurcation under ASC 815-15-25-51A because the investor in each tranche can be exposed to making potential future payments. In addition, the credit risk introduced by the freestanding written credit default swap held by the special-purpose entity is deemed not clearly and closely related to the host contract under ASC 815-15-15-9, so would require bifurcation even if the SPE were fully funded (and therefore the tranche holders were not exposed to making payments).

⁶⁶ While not noted in this example, the fact pattern in Case Y (ASC 815-15-55-226A) states that “the investor did not pay a significant premium for the interest in the tranche.” We understand from discussions with the FASB staff that they did not want the reader of Case Y to presume that there might also be an interest rate derivative that might have to be bifurcated because of a risk that the tranche could contractually be settled in such a way that the investor would not recover substantially all of its initial recorded investment. However, based on the other facts described in Case Y, we saw no description of any contractual features in any of the tranches that would lead us to believe that there would be any embedded features requiring bifurcation of an interest rate derivative in Case Y, even if the investor paid a “substantial premium” for its interest in a tranche. Specifically, there are no terms described in Case Y for any of the beneficial interest tranches that either (1) indicate the presence of a contingently exercisable call or put option in the beneficial interest (under ASC 815-15-25-42) or (2) alter the net interest payments that otherwise would be paid or received on the beneficial interest (under ASC 815-15-25-26).

Illustration 3-11: Fully funded synthetic collateralized debt obligation with multiple tranches (based on Case AA in ASC 815-15-55-226C)

Assume a special-purpose entity that holds securities issued by AA-rated Entity A and that wrote a credit default swap on a referenced credit (BBB-rated Entity B) to a third party (with a smaller notional amount than the securities held) issues various tranches of credit-linked beneficial interests to investors that differ in terms of priority for the distribution of cash flows from the special-purpose entity. The assets of the SPE are sufficient to fund any losses on the credit default swap. Furthermore, none of the tranches expose the investor to making potential future payments related to defaults on the written credit default swap. Rather, the investor is exposed to a potential reduction in its future cash inflows.

Each of the tranches in the example would have an embedded derivative requiring bifurcation because the credit risk introduced by the freestanding written credit default swap held by the special-purpose entity is deemed not clearly and closely related to the host contract under ASC 815-15-15-9.

Illustration 3-12: Fully funded synthetic collateralized debt obligation with a single-tranche structure (based on Case AB in ASC 815-15-55-226D)

Assume a special-purpose entity that holds securities issued by AA-rated Entity C and that wrote a credit default swap on a referenced credit (BBB-rated Entity D) to a third party uses a single-tranche structure to issue credit-linked beneficial interests to multiple investors. The assets in the SPE are sufficient to fund any losses on the credit default swap. As a single-tranche structure is used, there is no subordination, and therefore the scope exception in ASC 815-15-15-9 does not apply.

The beneficial interests in the example would have an embedded derivative requiring bifurcation because the credit risk introduced by the presence of the freestanding written credit default swap held by the special-purpose entity is deemed not clearly and closely related to the host contract under ASC 815-15-15-9. Had the SPE instead purchased the actual security of the BBB-rated Entity D and issued credit-linked beneficial interests to multiple investors, there would be no embedded derivative required to be bifurcated. This example illustrates how the Board feels different about structures that are created through the use of freestanding credit derivatives than it does about structures that are not created synthetically, despite their very similar economics.

3.13

The fair value election for hybrid financial instruments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Recognition

Fair Value Election for Hybrid Financial Instruments

815-15-25-4

An entity that initially recognizes a hybrid financial instrument that under paragraph 815-15-25-1 would be required to be separated into a host contract and a derivative instrument may irrevocably elect to initially and subsequently measure that hybrid financial instrument in its entirety at fair value (with changes in fair value recognized in earnings and, if paragraph 825-10-45-5 is applicable, other comprehensive income). A financial instrument shall be evaluated to determine that it has an embedded derivative requiring bifurcation before the instrument can become a candidate for the fair value election.

815-15-25-5

The fair value election shall be supported by concurrent documentation or a preexisting documented policy for automatic election. That recognized hybrid financial instrument could be an asset or a liability and it could be acquired or issued by the entity. The fair value election is also available when a previously recognized **financial instrument** is subject to a **remeasurement event (new basis event)** and the separate recognition of an embedded derivative. The fair value election may be made instrument by instrument. For purposes of this paragraph, a remeasurement event (new basis event) is an event identified in generally accepted accounting principles, other than the recognition of an other-than-temporary impairment, or measurement of an impairment loss through earnings under Topic 321 on equity investments, that requires a financial instrument to be remeasured to its fair value at the time of the event but does not require that instrument to be reported at fair value on a continuous basis with the change in fair value recognized in earnings. Examples of remeasurement events are business combinations and significant modifications of debt as defined in Subtopic 470-50.

815-15-25-6

The fair value election shall not be applied to the hybrid instruments described in paragraph 825-10-50-8.

Pending Content:

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815-15-25-5

The fair value election shall be supported by concurrent documentation or a preexisting documented policy for automatic election. That recognized hybrid financial instrument could be an asset or a liability and it could be acquired or issued by the entity. The fair value election is also available when a previously recognized financial instrument is subject to a remeasurement event (new basis event) and the separate recognition of an embedded derivative. The fair value election may be made instrument by instrument. For purposes of this paragraph, a remeasurement event (new basis event) is an event identified in generally accepted accounting principles, other than the recording of a credit loss under Topic 326, or measurement of an impairment loss through earnings under Topic 321 on equity investments, that requires a financial instrument to be remeasured to its fair value at the time of the event but does not require that instrument to be reported at fair value on a continuous basis with the change in fair value recognized in earnings. Examples of remeasurement events are business combinations and significant modifications of debt as defined in Subtopic 470-50.

Derivatives and Hedging – Embedded Derivatives***Other Presentation Matters******General*****815-15-45-2**

If an entity has designated a **financial liability** under the fair value election in accordance with paragraphs 815-15-25-4 through 25-6, the entity shall apply the guidance in paragraph 825-10-45-5 on the presentation of changes in the liability's fair value that result from changes in instrument-specific credit risk.

Both holders and issuers of certain hybrid financial instruments may, at inception, irrevocably elect to initially and subsequently measure the instrument in its entirety at fair value, with changes in fair value recognized in earnings. The fair value election may be made on an instrument-by-instrument basis at the time the hybrid financial instrument is acquired, when it is issued or when a previously recognized financial instrument is

subject to a remeasurement (new basis) event,⁶⁷ but it is required to be supported by concurrent documentation or a preexisting documented policy for automatic election. However, the fair value election of ASC 815-15-25-4 through 25-6 (in contrast to the broader fair value election of ASC 825-10) is not available for a hybrid financial instrument unless the instrument contains an embedded derivative that would otherwise be required to be bifurcated. That is, the “clearly and closely related” evaluation and analysis has to be performed before an interest holder can avail itself of the election under ASC 815-15.

How we see it

As noted above, the fair value election in accordance with ASC 815-15-25-4 through 25-6 must be made at the time the hybrid financial instrument is acquired or issued. As a result, holders and issuers will need to have determined at that time whether the hybrid instrument contains any embedded derivatives that require bifurcation. Otherwise, an entity would have the ability to use hindsight to observe the changes in fair value of the entire hybrid instrument relative to the changes in fair value of the bifurcated derivative and “cherry-pick” the more desirable result.

An entity could elect the fair value option in accordance with ASC 825-10, for the hybrid instrument, and therefore would not need to determine whether any embedded derivatives require bifurcation.

Still, the fair value election does make ASC 815 somewhat less burdensome for those interests or other hybrid financial instruments for which the “clearly and closely related” analysis is clear cut. For example, certain debt host instruments with embedded equity or commodity terms, such as equity-indexed notes and crude oil knock-in notes cases illustrated in ASC 815-15-55-189 and 55-190 and in 815-15-55-194 and 55-195, can be quickly identified as requiring bifurcation and the fair value election would eliminate the need for time-consuming computations.

The fair value election is available on an instrument-by-instrument basis, whether the instrument is an asset or a liability.

Note that the hybrid financial instruments eligible for the fair value election are *not* limited to interests in securitized financial assets, even though those interests are the focus of the other parts of ASC 815-15.

The election to use the fair value option does not extend to nonfinancial hybrid instruments. Furthermore, derivatives embedded in the types of hosts described in ASC 825-10-50-8 would not be eligible for the fair value option provided by ASC 815-15, even though some of those hosts might represent financial instruments.⁶⁸ Additionally, the fair value election is limited to recognized financial instruments.

⁶⁷ For purposes of this Topic, a remeasurement (new basis) event is an event identified in other authoritative accounting literature, other than the recognition of an other-than-temporary impairment, that requires a financial instrument to be remeasured to its fair value at the time of the event but does not require that the instrument be reported at fair value on a continuous basis with the change in fair value recognized in earnings. Examples of remeasurement events are business combinations and significant modifications of debt as defined in ASC 470-50. Upon the adoption of ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, the recognition of an other-than-temporary impairment is replaced by the recognition of an allowance for credit losses, which would not be considered a remeasurement event.

⁶⁸ Such instruments from ASC 825-10-50-8 include pension and other postretirement obligations, stock option and purchase plans, deferred compensation arrangements, insurance contracts as discussed in ASC 944, lease contracts, warranty obligations and rights, unconditional purchase obligations, investments accounted for under the equity method, investments in equity securities without readily determinable fair values accounted for in accordance with the measurement alternative under ASC 321, and noncontrolling interests and equity investments in consolidated subsidiaries.

How we see it

The FASB's fair value election in ASC 815-15 is not a "free" election because the election is not available unless the instrument contains an embedded derivative that ASC 815-15-05-1, 25-1, 25-14 and 35-2A and 815-15-25-26 through 25-29 would require to be bifurcated. The Board even anticipated that some financial engineers desiring fair value accounting for certain debt instruments may purposefully embed minor terms into their debt instruments that are not clearly and closely related to debt in order to avail themselves of the fair value election. (Presumably, counterparties would have to be accepting of such a practice, or simultaneously be able to obtain a derivative that offsets the effect in earnings of the minor embedded derivative.) ASC 815 does not have an "immateriality exception" for its bifurcation guidance, so such a practice would not be prohibited. The Board was not concerned with such engineering efforts because it did not object to the end result of fair value accounting through earnings for the hybrid financial instrument.

4 Hedge criteria and hedge effectiveness

4.1 Three types of hedges

ASC 815 permits hedge accounting for certain items and transactions to mitigate the income statement effect of recording a derivative on the balance sheet at fair value. ASC 815 generally provides for matching the income statement timing of gain or loss recognition on the hedging instrument with the recognition of (1) the changes in the fair value of a hedged asset or liability that are attributable to the hedged risk or (2) the earnings effect of a hedged forecasted transaction.

Under ASC 815, if the criteria that permit hedge accounting are met, an entity may elect to designate a derivative in a qualifying hedging relationship as follows:

- ▶ A hedge of the exposure to changes in the fair value of a recognized asset or liability, or of an unrecognized firm commitment,⁶⁹ that are attributable to a particular risk (referred to as a fair value hedge)
- ▶ A hedge of the exposure to variability in the cash flows of a recognized asset or liability, or of a forecasted transaction (referred to as a cash flow hedge)
- ▶ A hedge of the foreign currency exposure of a net investment in a foreign operation (referred to as a net investment hedge)

Derivatives that are designated in one of the three qualifying hedging relationships above are sometimes referred to as “accounting hedges.”

How we see it

As derivatives are required to be accounted for at fair value by ASC 815, ASC 820 directly affects derivative accounting and, accordingly, hedge accounting. Among other things, the fair value measurement concepts in ASC 820 may affect an entity’s assessment of hedge effectiveness, nonperformance risk considerations in valuation methodologies and the recognition of Day 1 gains and losses.

Changes in the fair value of derivatives that do not meet the hedge accounting criteria for one of the three hedging categories above, or for which an entity chooses not to designate the derivative as an accounting hedge, must be recognized immediately in income. These derivatives are often referred to as “economic hedges” because they serve to mitigate a risk exposure of the entity even though hedge accounting is not applied. In some instances, entities may prefer to use economic hedges because there are no documentation or effectiveness assessment requirements to comply with since hedge accounting is not applied. While the use of economic hedges can result in additional GAAP earnings volatility, in some cases the change in fair value of the derivative will naturally offset (or partially offset) an item that is required to be remeasured at fair value through earnings and therefore does not qualify for hedge accounting (e.g., a debt security classified as trading). Refer to section 4.6.3 for additional discussion of items prohibited from being designated as hedged items when remeasured at fair value through earnings.

⁶⁹ When a previously unrecognized firm commitment that is designated as a hedged item is accounted for in accordance with ASC 815, an asset or a liability is recognized and reported in the statement of financial position related to the recognition of the change in value of the firm commitment. Consequently, references to an asset or a liability in ASC 815 include firm commitments.

For those relationships that meet the hedge accounting criteria, ASC 815 provides requirements for applying hedge accounting, which are further discussed here and in chapters 5, 6 and 7. This chapter addresses general criteria for the derivative and for the hedged item, as well as specific criteria for fair value hedges and for cash flow hedges and the impact of the fair value measurement concepts in ASC 820 on hedge accounting. In addition, guidance is provided for documenting the designation of the derivative as a hedge, for measuring hedge effectiveness and for satisfying the criteria in situations where a written option is being utilized or portfolio hedging is attempted.

4.2 Hedge accounting criteria

The FASB limited the use of hedge accounting by providing specific criteria that must be met in order for an entity to qualify for hedge accounting. Designated hedges qualify for fair value or cash flow hedge accounting only if all of the applicable criteria are met. Those criteria are described in this chapter. For hedges involving foreign exchange risk, refer to the additional criteria discussed in chapter 7.

4.2.1 Documentation requirement

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation...

At the inception of the hedge, there must be formal documentation of the hedging relationship (unless the hedge is specifically designated under the simplified hedge accounting approach that allows certain private companies to complete their formal hedge documentation up until the date that their first annual financial statements after hedge inception are available to be issued; see chapter 6 for further details) and the entity's risk management objective and strategy for undertaking the hedge. Because formal documentation is required at the inception of the hedging relationship, the use of hedge accounting is optional (i.e., management could elect not to designate a derivative as a hedge).

Hedge accounting cannot be retroactively applied after the changes in fair value of the derivative are known or applied based on an entity's undocumented intent. The staffs of the FASB and the SEC have emphasized this key point by reiterating that documentation must be in place at the date of adoption for any hedging relationships to which an entity wants to apply hedge accounting. However, the guidance provides timing relief to private companies that are not financial institutions and certain not-for-profit entities (i.e., those that have not issued, or are not a conduit bond obligor for, securities that are traded, listed or quoted on an exchange or an over-the-counter market) for completing certain aspects of the hedge documentation (discussed in section 4.4.5). Hedge accounting under ASC 815 is not presumed. Planning, communication and documentation are prerequisites to its use.

Section 4.4 describes the documentation requirements in detail. Briefly, the requirements include identification of the derivative, the related hedged item or transaction; the nature of the particular risk being hedged; and how the hedging instrument's effectiveness will be assessed, retrospectively and prospectively (including any decision to exclude certain components of a specific derivative's change in fair value, such as time value, from the assessment of hedge effectiveness).

4.2.2 Permissible hedging strategy requirement

ASC 815 permits the application of hedge accounting to certain hedging strategies by establishing requirements related to the hedged item and the hedging instrument (e.g., the derivative). In limiting the hedged item, the FASB also limited the risk components within the hedged item that an entity may hedge (e.g., foreign exchange risk, interest rate risk). This section summarizes a number of those requirements, and sections 4.5 and 4.6 provide additional detail regarding limitations on the hedging instrument and hedged item, respectively.

Designated hedging instruments and hedged items qualify for fair value or cash flow hedge accounting only if all of the following criteria are met, as well as those specific to fair value or cash flow hedging:

Criteria related to the hedged item – an asset, liability, a firm commitment or forecasted transaction is eligible for designation as a hedged item (fair value hedge) or hedged transaction (cash flow hedge) only if all of the following criteria are met:

- ▶ The hedged item or transaction presents an exposure that could affect reported earnings. Further, it must be with a party external to the reporting entity unless it is a forecasted intercompany foreign-currency-denominated transaction.
- ▶ The hedged item or transaction cannot be related to an asset, liability or forecasted transaction that is, or subsequently will be, remeasured with the changes in fair value reported currently in earnings (e.g., a debt security classified as trading or its interest cash flows).
- ▶ The hedged item or transaction cannot be (1) an investment accounted for by the equity method in accordance with ASC 323 or accounted for in accordance with ASC 321, (2) a noncontrolling interest in one or more consolidated subsidiaries, (3) an equity investment in a consolidated subsidiary, (4) a business combination subject to the provisions of ASC 805, (5) a transaction to acquire or dispose of a subsidiary, noncontrolling interest or equity method investee, (6) an equity instrument issued by the entity and classified in stockholders' equity in the statement of financial position or (7) a transaction with stockholders as stockholders (e.g., projected purchase of treasury stock or payments of dividends).
- ▶ If the hedged item or transaction relates to all or a portion of a debt security or a portfolio of similar debt securities that is classified as held to maturity under ASC 320, the designated risk being hedged is the risk of changes in its fair value or cash flows attributable to credit risk or foreign exchange risk or both. The risk being hedged cannot be the risk of changes in the fair value or cash flows attributable to interest rate risk.
- ▶ With the exception of certain foreign currency transactions, a nonderivative instrument, such as a Treasury bond, cannot be designated as a hedging instrument.

Criteria related to the hedging instrument – a derivative is eligible for designation as a hedging instrument if:

- ▶ For a written option designated as a hedging instrument, the combination of the hedged item (i.e., embedded purchased option) and the written option must provide at least as much potential for gains as a result of favorable changes in the fair value of the combined instrument (i.e., combination of the written option and hedged item or transaction) as exposure to losses from unfavorable changes in their combined fair value. The test is met if all possible percentage favorable changes in the underlying (from zero to 100%) would provide at least as much gain as the loss that would be incurred from an unfavorable change in the underlying of the same percentage. (In general, written options infrequently qualify to be hedging instruments.)

In addition to the general criteria identified above, the following criteria are specific to fair value hedges:

- ▶ For a fair value hedge of a *nonfinancial* asset or liability, the designated risk being hedged must be the risk of changes in fair value for the entire hedged asset or liability and not the price risk of a similar asset in a different location or of a major ingredient.⁷⁰ Note that this limitation does not apply to hedges of foreign exchange risk. The foreign exchange risk of the hedged nonfinancial item (or forecasted purchase or sale thereof) can be separated from the entire change in the fair value or cash flows for the hedged item and be hedged separately.
- ▶ If the hedged item is a financial asset or liability, a recognized loan servicing right or the financial component of a nonfinancial firm commitment, the designated risk being hedged must be (1) the risk of changes in the overall fair value for the entire hedged asset or liability, (2) the risk of changes in the fair value attributable to changes in the designated benchmark interest rate (referred to as interest rate risk), (3) the risk of changes in the fair value attributable to changes in the related foreign currency exchange rates (referred to as foreign exchange risk), (4) the risk of changes in the fair value attributable to both changes in the obligor's creditworthiness and changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at the inception of the hedge (referred to as credit risk) or (5) some combination of the risks described in numbers (2) through (4).

When hedging an individual risk in a fair value hedge (i.e., not the risk of the overall change in the fair value of the financial instrument), an entity must consider the effect of any embedded derivatives within the same risk in the designation.⁷¹ However, when hedging interest rate risk in a prepayable financial instrument, an entity is allowed to consider under ASC 815-20-25-6B only how changes in the designated benchmark interest rate will affect the decision to prepay the instrument. For example, when hedging callable debt, an entity has to consider the effect of changes in the benchmark interest rate on the issuer's decision to exercise a noncontingent call option, but does not have to consider other factors that would affect the issuer's decision to call the debt (e.g., changes in the issuer's credit spread). (Refer to section 5.3.2 for additional discussion on fair value hedges of interest rate risk in prepayable financial instruments). In addition, an entity may not designate prepayment risk as the risk being hedged, but it can designate the option component of a prepayable instrument as the hedged item in a fair value hedge of the entity's exposure to changes in the fair value of that prepayment option, perhaps achieving the objective of its desire to hedge prepayment risk.

- ▶ For a closed portfolio of prepayable financial assets (prior to the adoption of ASU 2022-01⁷²) or any financial assets (after the adoption of ASU 2022-01) or one or more beneficial interests secured by financial assets in such a portfolio, an entity may designate as the hedged item(s) a stated amount(s) of the asset(s) that is not expected to be affected by prepayments, defaults and other factors affecting the timing and amount of cash flows, as long as the relationship is designated in conjunction with the partial-term hedging election discussed in section 5.3.1.

⁷⁰ When hedging the price exposure for gasoline inventory, for example, an entity cannot designate the risk of changes in the crude oil component of gasoline as the risk being hedged. However, crude-oil-based derivative instruments can still be used to hedge in fair value hedges of gasoline, but only to the extent that changes in the entire fair value or cash flows of the crude oil derivative are effective in hedging against the risk of changes in the entire fair value or cash flows of the hedged gasoline inventory. Because crude oil prices do not correlate precisely with gasoline prices, the hedging relationship will not be perfectly effective and earnings volatility will be recognized as a result of the mismatch.

⁷¹ For example, the effect of an embedded prepayment option must be considered when designating a fair value hedge of interest rate risk. The entity cannot hedge the risk assuming the embedded derivative does not affect the fair value of the instrument. We believe this provision applies only to embedded derivatives that have not been bifurcated from the host. Once bifurcated, the embedded derivative and the host are separate instruments for accounting purposes.

⁷² ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, is effective for public business entities for fiscal years beginning after 15 December 2022, and for all other entities for fiscal years beginning after 15 December 2023.

- ▶ For a fair value hedge of a firm commitment, the designation documentation must include a reasonable method for recognizing in earnings the asset or liability representing the gain or loss on the hedged firm commitment.
- ▶ The hedged item is specifically identified as either all or a specific portion of a recognized asset or liability or of an unrecognized firm commitment. The hedged item is a single asset or liability (or a specific portion thereof) or is a portfolio of similar assets or a portfolio of similar liabilities (or a specific portion thereof), in which circumstance:
 - ▶ If similar assets or similar liabilities are aggregated and hedged as a portfolio, the individual assets or individual liabilities must share the risk exposure for which they are designated as being hedged. The change in fair value attributable to the hedged risk for each individual item in a hedged portfolio must be expected to respond in a generally proportionate manner to the overall change in fair value of the aggregate portfolio attributable to the hedged risk. Refer to discussion in section 4.6.9.1.
 - ▶ If the hedged item is a specific portion of an asset or a liability (or of a portfolio of similar assets or a portfolio of similar liabilities), the hedged item is one of the following:
 - ▶ A percentage of the entire asset or liability (or of the entire portfolio)
 - ▶ One or more selected contractual cash flows (such as the portion of the asset or liability representing the present value of the interest payments in any consecutive two years of a four-year debt instrument)
 - ▶ A put option, a call option, an interest rate cap or an interest rate floor embedded in an existing asset or liability that is not an embedded derivative accounted for separately under ASC 815
 - ▶ The residual value in a lessor's net investment in a direct financing or sales-type lease
- ▶ If the hedged item is an option component of a held-to-maturity debt security that permits its prepayment, the designated risk being hedged is the risk of changes in the entire fair value of that option component. If the hedged item is other than an option component that permits its prepayment, the designated hedged risk may not be the risk of changes in its overall fair value.

In addition to the general criteria identified above, the following criteria are specific to cash flow hedges:

- ▶ For a forecasted purchase or sale of a nonfinancial asset, the designated risk being hedged must be (1) the risk of changes in cash flows for the entire purchase price or sales price, (2) the risk of changes in functional currency-equivalent cash flows attributable to changes in the related foreign currency exchange rates (referred to as foreign exchange risk) or (3) the risk of variability in cash flows attributable to changes in a contractually specified component.
- ▶ If the hedged item is the forecasted purchase or sale of a financial asset or liability, the interest payments on that financial asset or liability, or the forecasted cash flows of an existing financial asset or liability, the designated risk being hedged must be (1) the risk of changes in the overall cash flows for the entire hedged asset or liability, (2) the risk of changes in cash flows attributable to changes in the contractually specified interest rate (referred to as interest rate risk),⁷³ (3) the risk of changes in functional currency-equivalent cash flows attributable to changes in the related foreign currency exchange rates (referred to as foreign exchange risk), (4) the risk of changes in cash flows attributable to default, changes in the obligor's creditworthiness and changes in the spread over the contractually specified interest rate or benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge (referred to as credit risk) or (5) some combination of the risks described in numbers (2) through (4).

⁷³ For a forecasted issuance or purchase of a debt instrument, the hedged risk may be either changes in cash flows attributable to changes in the benchmark interest rate or the expected contractually specified interest rate. This concept is discussed further in section 6.4.1.1.

- ▶ For cash flow hedges, the designation documentation must also include the date on or period within which the forecasted transaction is expected to occur, the specific nature of the asset or liability involved and the expected currency amount (for foreign currency hedges) or quantity of the forecasted transaction.
- ▶ The forecasted transaction is specifically identified as a single transaction or a group of individual transactions. If the hedged transaction is a group of individual transactions, those individual transactions must share the same risk exposure for which they are designated as being hedged. Thus, a forecasted purchase and a forecasted sale cannot both be included in the same group of individual transactions that constitute the hedged transaction.
- ▶ If a hedging instrument is used to modify the interest receipts or payments associated with a recognized financial asset or liability from one variable rate to another variable rate, the hedging instrument must be a link between an existing designated asset (or group of similar assets) with variable cash flows and an existing designated liability (or group of liabilities) with variable cash flows and be highly effective at achieving offsetting cash flows. (These instruments, known as *basis swaps*, are discussed further in section 6.10.2.)
- ▶ The occurrence of the forecasted transaction is probable.

4.2.3 Effectiveness requirement

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- b. Documentation requirement applicable to fair value hedges, cash flow hedges, and net investment hedges:
 - iv. The method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's **fair value** (if a fair value hedge) or hedged transaction's variability in cash flows (if a cash flow hedge) attributable to the hedged risk. There shall be a reasonable basis for how the entity plans to assess the hedging instrument's effectiveness.
 01. An entity shall perform an initial prospective assessment of hedge effectiveness on a quantitative basis (using either a dollar-offset test or a statistical method such as regression analysis) unless one of the following applies:
 - A. In a cash flow or fair value hedge, the entity applies the shortcut method in accordance with paragraphs 815-20-25-102 through 25-117.
 - B. In a cash flow or fair value hedge, the entity determines that the critical terms of the hedging instrument and the hedged item match in accordance with paragraphs 815-20-25-84 through 25-85.

- C. In a cash flow hedge, the hedging instrument is an option, and the conditions in paragraphs 815-20-25-126 and 815-20-25-129 through 25-129A are met.
- D. In a cash flow hedge, a **private company** that is not a financial institution as described in paragraph 942-320-50-1 applies the simplified hedge accounting approach in paragraphs 815-20-25-133 through 25-138.
- E. In a cash flow hedge, the entity assesses hedge effectiveness under the change in variable cash flows method in accordance with paragraphs 815-30-35-16 through 35-24, and all of the conditions in paragraph 815-30-35-22 are met.
- F. In a cash flow hedge, the entity assesses hedge effectiveness under the hypothetical derivative method in accordance with paragraphs 815-30-35-25 through 35-29, and all of the critical terms of the hypothetical derivative and hedging instrument are the same.
- G. In a net investment hedge, the entity assesses hedge effectiveness using a method based on changes in spot exchange rates, and the conditions in paragraph 815-35-35-5 (for derivative instruments) or 815-35-35-12 (for nonderivative instruments) are met.
- H. In a net investment hedge, the entity assesses hedge effectiveness using a method based on changes in forward exchange rates, and the conditions in paragraph 815-35-35-17A are met.

Hedge Effectiveness Criteria Applicable to both Fair Value Hedges and Cash Flow Hedges

815-20-25-75

To qualify for hedge accounting, the hedging relationship, both at inception of the hedge and on an ongoing basis, shall be expected to be highly effective in achieving either of the following:

- a. Offsetting changes in fair value attributable to the hedged risk during the period that the hedge is designated (if a fair value hedge)
- b. Offsetting cash flows attributable to the hedged risk during the term of the hedge (if a cash flow hedge), except as indicated in paragraph 815-20-25-50.

815-20-25-76

If the hedging instrument (such as an at-the-money option contract) provides only one-sided offset of the hedged risk, either of the following conditions shall be met:

- a. The increases (or decreases) in the fair value of the hedging instrument are expected to be highly effective in offsetting the decreases (or increases) in the fair value of the hedged item (if a fair value hedge).
- b. The cash inflows (outflows) from the hedging instrument are expected to be highly effective in offsetting the corresponding change in the cash outflows or inflows of the hedged transaction (if a cash flow hedge).

ASC 815 limits hedge accounting to those qualifying relationships that are expected to be “highly effective” in achieving offsetting changes in fair value or cash flows attributable to the hedged risk during the period that the hedge is designated.

Section 4.8 describes the hedge effectiveness criteria in detail. Generally, an assessment of effectiveness is required at the inception of the hedge, as described in section 4.2.3.1, and whenever financial statements or earnings are reported, or at least every three months. The assessment step includes both a prospective assessment of hedge effectiveness and a retrospective assessment of hedge effectiveness.

4.2.3.1

Timing of initial prospective effectiveness assessment

Excerpt from Accounting Standards Codification**Derivatives and Hedging – Hedging-General***Recognition**Formal Designation and Documentation at Hedge Inception***815-20-25-3**

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- b. Documentation requirement applicable to fair value hedges, cash flow hedges, and net investment hedges:
 - iv. The method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's **fair value** (if a fair value hedge) or hedged transaction's variability in cash flows (if a cash flow hedge) attributable to the hedged risk. There shall be a reasonable basis for how the entity plans to assess the hedging instrument's effectiveness.
- 02. The initial prospective quantitative hedge effectiveness assessment using information applicable as of the date of hedge inception is considered to be performed concurrently at hedge inception if it is completed by the earliest of the following:
 - A. The first quarterly hedge effectiveness assessment date
 - B. The date that financial statements that include the hedged transaction are available to be issued
 - C. The date that any criterion in Section 815-20-25 no longer is met
 - D. The date of expiration, sale, termination, or exercise of the hedging instrument
 - E. The date of dedesignation of the hedging relationship
 - F. For a cash flow hedge of a forecasted transaction (in accordance with paragraph 815-20-25-13(b)), the date that the forecasted transaction occurs.

ASC 815 requires that an initial prospective assessment of hedge effectiveness be performed on a quantitative basis (e.g., based on a regression analysis) except in the following situations:

- ▶ In a cash flow or fair value hedge, where an entity applies the shortcut method or determines that the critical terms of the hedging instrument and hedged item match
- ▶ In a cash flow hedge, where an entity assesses hedge effectiveness based on an option's terminal value or where a private company applies the simplified hedge accounting approach
- ▶ In a cash flow hedge, where an entity assesses hedge effectiveness under (1) the change-in-variable-cash-flow method, and all the conditions to assume the hedge is perfectly effective are met or (2) the hypothetical-derivative method, and all of the critical terms of the hypothetical derivative and hedging instrument are the same
- ▶ In a net investment hedge, where the conditions to assume perfect effectiveness under either the spot or forward method are met

In accordance with ASC 815-20-25-3(b)(2)(iv)(02), an entity's initial prospective quantitative hedge effectiveness assessment is considered to be performed at hedge inception if it is completed by the earliest of the following dates:

- ▶ The first quarterly hedge effectiveness assessment date
- ▶ The date that financial statements are available to be issued
- ▶ The date that the hedging relationship no longer meets the hedge accounting criteria in ASC 815-20-25
- ▶ The date of expiration, sale, termination or exercise of the hedging instrument
- ▶ The date that the hedging relationship is dedesignated
- ▶ For a cash flow hedge of a forecasted transaction, the date that the forecasted transaction occurs

Depending on the timing of the execution of the hedge, an entity may have as long as three months to perform their initial quantitative effectiveness test. However, an entity will need to use information as of the date of hedge designation when performing the initial quantitative assessment. The following example illustrates a situation when an entity would be required to perform this assessment before the end of the quarter in which the hedge was designated.

Illustration 4-1: Timing of initial quantitative prospective effectiveness assessment

Assume that on 16 October 20X1, Company A determines that it is probable it will purchase 100 bushels of corn on 16 December 20X1 at the spot price in location Y on that day. To lock in the base corn price associated with this forecasted purchase, Company A purchases a two-month corn futures contract on the Chicago Mercantile Exchange on 16 October 20X1. This futures contract will net settle on 16 December 20X1.

Company A designates the futures contract as the hedging instrument in a cash flow hedge of the variability in the total price of its forecasted purchase of corn at location Y. On 16 December 20X1, the forecasted purchase occurs.

While Company A would need to document its hedging relationship on 16 October 20X1 (the hedge inception date), it would have until 16 December 20X1 (the date the forecasted transaction occurs) to perform its initial prospective quantitative assessment to validate that the hedge was expected to be highly effective. The information used for this assessment would be as of 16 October 20X1.

How we see it

Giving entities more time to perform their initial prospective quantitative assessment may provide relief to entities that have resource constraints that make it challenging to complete this analysis on the date the hedge is executed. However, with the exception of certain private companies and not-for-profit entities (as discussed further in section 4.4.5), entities are still required to meet all of the other hedge documentation requirements at hedge inception, including documenting the methodology that will be used to assess hedge effectiveness both at inception and on an ongoing basis.

It should also be noted that if the initial prospective quantitative assessment of hedge effectiveness is performed at the end of the quarter in which the hedging relationship is designated, this assessment cannot also be used to conclude that the hedging relationship was effective during the quarter (i.e., as a retrospective assessment at quarter end) or is expected to be effective in future periods (i.e., as a prospective assessment at quarter end). That is, entities would be required to perform a separate analysis, based on information that existed as of the end of the quarter rather than information that existed on the date the hedge was executed.

4.3 Consequences of not meeting hedge criteria

To qualify for hedge accounting under ASC 815, the hedge and the hedged item must meet all of the applicable criteria, including the criteria specific to that hedge type (e.g., specific to a cash flow hedge). If all of the required criteria are not met, hedge accounting would not be applied, and the change in the fair value of the derivative would be recognized in income as it occurs without considering any changes in the hedged item's fair value. Similarly, hedge accounting will only be able to be applied while the criteria are met. As a result, if the criteria cease to be met during the life of a derivative or hedged item, hedge accounting as permitted by ASC 815 will cease prospectively.

A hedge could fail to continually meet the criteria for a variety of reasons. Some criteria, such as the ongoing documentation that hedge accounting continues to be applied, are elective on the part of the entity using the derivative. Other criteria, such as continuing to be highly effective, are involuntary and result from market dynamics. In addition, if the criteria fail to be met because a hedged forecasted transaction is probable of not occurring, any gains or losses from the derivative that have been deferred in AOCI are immediately charged or credited to income. See discussion in section 4.6.6.

As a result of these provisions, failure to prepare the formal and complete documentation required to qualify as a hedge, including the documentation of the method for the assessment of effectiveness, can be costly. Such deficiencies can preclude the derivative from qualifying as a hedge.

4.4 Formal hedge documentation

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- b. Documentation requirement applicable to fair value hedges, cash flow hedges, and net investment hedges:
 1. The hedging relationship
 2. The entity's risk management objective and strategy for undertaking the hedge, including identification of all of the following:
 - i. The hedging instrument.
 - ii. The hedged item or transaction.
 - iii. The nature of the risk being hedged.
 - iv. The method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's **fair value** (if a fair value hedge) or hedged transaction's variability in cash flows (if a cash flow hedge) attributable to the hedged risk. There shall be a reasonable basis for how the entity plans to assess the hedging instrument's effectiveness.
 - v. Subparagraph superseded by Accounting Standards Update No. 2017-12.
 - vi. If the entity is hedging foreign currency risk on an after-tax basis, that the assessment of effectiveness will be on an after-tax basis (rather than on a pretax basis).

Risk management objective and strategy. The first formal documentation requirement is of an entity's risk management objectives and strategy for undertaking each hedge. To adequately control hedging activities, an entity will want to make certain that its hedge strategies are synchronized with its overall stated risk management philosophy.

In ensuring that this synchronization occurs, an entity should allow for adequate flexibility in stating its risk management objective. For example, an entity might not want to establish an overall policy that says it seeks to adjust its fixed-rate debt exposure to a variable-rate exposure if, in future periods, the entity wants the flexibility to seek out fixed-rate exposures in low market-interest-rate environments. Instead, the entity might state that its risk management policy is always to maintain within a certain range a debt exposure that is 20%-40% fixed rate and 60%-80% floating rate. A policy stated in this manner would preserve the entity's flexibility to change the direction of its interest rate swap program as market conditions change.

Interrelationship of hedge designation, hedge effectiveness and hedge accounting. The implications of hedge designation and hedge effectiveness are among the most significant basic concepts that must be understood to apply hedge accounting. Designation, effectiveness and the resulting accounting are all intertwined.

While preparing the formal documentation necessary to qualify for hedge accounting, an entity must determine how the hedging instrument's effectiveness will be assessed. This includes anticipating how the hedging relationship between the derivative and the hedged item is expected to play out since ASC 815 requires an initial prospective assessment of hedge effectiveness. While this initial assessment is generally performed quantitatively, the hedging relationship is presumed to be highly effective if one of the situations described in ASC 815-20-25-3(b)(2)(iv)(01) exists (refer to section 4.2.3).

In addition, to maximize hedge effectiveness, entities need to consider precisely how to define the risk being hedged and which, if any, elements of the derivative should be excluded from the assessment of hedge effectiveness.

How we see it

The process of documenting and identifying the hedging relationship, the derivative, the hedged item, the nature of the particular risk being hedged and how the hedging instrument's effectiveness will be assessed can be extensive. How a hedge is designated at inception can affect how it is reflected in the financial statements. In some cases, the same derivative could be used as either a fair value or cash flow hedge, and the entity will have to decide whether to designate the derivative as a fair value hedge or as a cash flow hedge. Because the accounting for each type of hedge is different, the designation decisions are important.

For example, an entity that keeps a portfolio of short-term variable-rate investments and has long-term fixed-rate debt outstanding would be able to designate an interest rate swap entitling it to receive a fixed interest rate and to pay a variable interest rate as either a cash flow hedge of the future interest income from its short-term investments or as a fair value hedge of its long-term debt obligation. In either case, the derivative would protect the entity from the effects of declining interest rates. In addition to considering the impact on the entity's equity, the decision may depend on whether the entity seeks to hedge its interest income or interest expense line item on the income statement.

The specificity required in designating the hedged item can also have an effect as discussed further in section 4.4.1 below. In addition, hedge documentation must be performed at the inception of the hedge accounting relationship to qualify for hedge accounting under ASC 815. Management cannot wait to see how the fair value of the derivative changes and retrospectively designate the hedge.

Hedge designations need to be carefully tailored to match the derivative for which hedge accounting is sought. For example, option-based strategies by their very nature only provide hedging offset in one direction. In such cases, the hedged risk needs to be documented as only pertaining to a certain range of changes in the underlying variable. For example, a 5% interest rate cap is only hedging the risk of interest rate movements above 5%, not all interest rate movements.

At the 2006 AICPA National Conference on Current SEC and PCAOB Developments, an SEC staff member noted⁷⁴ that Statement 133, which was later codified in ASC 815, does not specify the form of the documentation required in order to qualify for hedge accounting. In fact, the SEC staff acknowledged it has been presented with, and has accepted, a variety of approaches. The SEC staff noted that if the documentation includes all of the required elements such that it is clear what the registrant has done, then the documentation could be deemed sufficient to qualify for hedge accounting at inception. Because there is no bright-line for determining whether the relationship is sufficiently clear, the SEC staff indicated that registrants and their auditors must apply judgment in evaluating the sufficiency of the documentation. The SEC staff stated that certain elements of the hedge designation should be quite clear, citing as an example the identity of the hedged item and hedging instrument. However, if any of the required elements are missing, the SEC staff stated that hedge accounting would be inappropriate.

4.4.1 Additional requirements for documenting cash flow hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- d. Documentation requirement applicable to cash flow hedges only:
 - 1. For a cash flow hedge of a **forecasted transaction**, documentation shall include all relevant details, including all of the following:
 - i. The date on or period within which the forecasted transaction is expected to occur.
 - ii. The specific nature of asset or liability involved (if any).
 - iii. Either of the following:
 - 01. The expected currency amount for hedges of foreign currency exchange risk; that is, specification of the exact amount of foreign currency being hedged

⁷⁴ See remarks by Joseph D. McGrath at the AICPA National Conference on Current SEC and PCAOB Developments in 2006.

- 02. The quantity of the forecasted transaction for hedges of other risks; that is, specification of the physical quantity (that is, the number of items or units of measure) encompassed by the hedged forecasted transaction.
- iv. If a forecasted sale or purchase is being hedged for price risk, the hedged transaction shall not be specified in either of the following ways:
 - 01. Solely in terms of expected currency amounts
 - 02. As a percentage of sales or purchases during a period.
- v. The current price of a forecasted transaction shall be identified to satisfy the criterion in paragraph 815-20-25-75(b) for offsetting cash flows.
- vi. The hedged forecasted transaction shall be described with sufficient specificity so that when a transaction occurs, it is clear whether that transaction is or is not the hedged transaction. Thus, a forecasted transaction could be identified as the sale of either the first 15,000 units of a specific product sold during a specified 3-month period or the first 5,000 units of a specific product sold in each of 3 specific months, but it could not be identified as the sale of the last 15,000 units of that product sold during a 3-month period (because the last 15,000 units cannot be identified when they occur, but only when the period has ended).
- vii. If the hedged risk is the variability in cash flows attributable to changes in a **contractually specified component** in a forecasted purchase or sale of a nonfinancial asset, identification of the contractually specified component.
- viii. If the hedged risk is the variability in cash flows attributable to changes in a contractually specified interest rate for forecasted interest receipts or payments on a variable-rate financial asset or liability, identification of the contractually specified interest rate.

The requirement to specifically identify the hedged item can become complex when dealing with cash flow hedges of forecasted transactions. The key is that the designation must be specific enough so that when the forecasted transaction occurs, the transaction can be unmistakably identified as the item that was previously designated as being hedged. That is, after the derivative is designated, there should be no subjectivity in determining which transactions were hedged and which were not.

This information is necessary to (1) assess the likelihood that the transaction will occur, (2) determine whether the cumulative cash flows of the designated derivative are expected to be highly effective at offsetting the change in expected cash flow of the forecasted transaction attributable to the risk being hedged and (3) assess the hedge's effectiveness on an ongoing basis. (See section 6.4.3 for additional discussion regarding the interaction between the hedged item and the risk being hedged.)

In interpreting ASC 815-20-25-3(d)(1)(vi) above, the FASB concluded that it is not permissible to specify a percentage of *all* sales during a period, although a percentage of the first 15,000 units of sales would be permitted.⁷⁵

⁷⁵ This concept, commonly referred to as the "first-payments-received" technique, is discussed in ASC 815-20-55-89 through 55-99 and ASC 815-30-55-56. In practice, this concept has also been applied to the first units sold during a defined period.

How we see it

ASC 815-20-25-45 allows two or more derivative instruments to be jointly designated as a hedging instrument. When more than one derivative is used to hedge a series of forecasted cash flows, it is important for each hedge designation to indicate which derivative is in the “first position” (e.g., which one hedges the first 15,000 units sold) and which one is in the “second (or third, et al.) position” (e.g., which one hedges the next 10,000 units sold after the units allocated to the derivative in the first position). Historically, the SEC staff has identified through its comment letter process situations where “sufficient specificity” was not provided in the description of the hedged forecasted transaction in cash flow hedges involving more than one hedging derivative, resulting in the complete loss of hedge accounting and restatement. In theory, hedge effectiveness cannot be assessed properly if one does not know the proper pairing of each individual derivative to the set of hedged cash flows.

The issue of lack of “sufficient specificity” in cash flow hedge designations is not particularly new, and many entities understand its importance when hedging a series of cash flows that occur on different dates within a set range and/or when they decide to “layer on” new derivatives to supplement cash flow hedges already in place to cover later cash flows in the series.

However, when two or more derivatives are used to hedge identical cash flows that occur on the same date (e.g., coupon payments on variable rate debt), it may not occur to some entities to designate the order of the hedging instruments. One possible explanation is that when ASC 815 cites the “sufficient specificity” requirement it is in the context of a series of cash flows occurring on different dates and, therefore, conceivably representing different variability from day to day. However, the SEC staff has historically found fault whenever two (or more) derivatives are linked to the same hedged cash flow occurring on the same date but the derivative in the first position and the derivative in the second position are not identified.

The phenomenon of two or more derivatives hedging the same forecasted cash flow or flows is common. Entities pursuing a particular hedge strategy will split their derivative business among two or more derivative counterparties to comply with sound risk management policies that call for diversification of counterparty credit risk and the pursuit of competitive rate bids. Often the two (or more) derivatives are traded and priced with the different counterparties at the same moment, resulting in identical or near-identical rates. It may not naturally occur to the hedging entity to indicate which derivative is first or second, because in the entity’s view, the derivatives are essentially identical and were entered into virtually simultaneously.

Entities may have reasoned that the position of each derivative is irrelevant. Because there is more than a sufficient amount of probable hedged cash flows to link with both derivatives, and because all the cash flows are identical (e.g., reset to the same interest rate index at the same time, translate at the same end-of-day foreign currency spot rate), which derivative is in first or second position will not affect the assessment of effectiveness.

However, the SEC staff has historically raised concerns with the possibility of an event that an entity may not be contemplating. Even though there may be no effect on the ongoing assessment of effectiveness as long as the hedged cash flows remain probable, the SEC staff believes that an entity’s initial documentation needs to contemplate what might occur if a portion of the hedged cash flows becomes no longer probable of occurring, or probable of not occurring, while a portion still remains probable of occurring. The staff reasons that in such an event, the entity’s preexisting documentation needs to indicate which derivative is affected by the reduction in probable cash flows and which derivative remains unscathed. If an entity had originally indicated which derivative is in the first position and which is in the second position, then that determination can be made. If not, the SEC staff has found that the documentation was deficient and such deficiency led to the loss of hedge accounting in certain circumstances.

In addition, the staff has historically not been sympathetic to a “default logic” that the derivatives entered into chronologically second, third and fourth, for example, must be in the second, third and fourth positions. Instead, the staff believes such positioning must be explicit in the documentation. However, the staff has not insisted that all elements of a hedge designation exist in a single document. The staff does allow an entity to consider the entirety of hedge documentation that is evident, even if in more than one location or prepared by different individuals or departments, as long as it was contemporaneous to the inception of each hedge.

4.4.2

Additional requirements for documenting fair value hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- c. Documentation requirement applicable to fair value hedges only:
 1. For a fair value hedge of a **firm commitment**, a reasonable method for recognizing in earnings the asset or liability representing the gain or loss on the hedged firm commitment.
 2. For a hedging relationship designated under the last-of-layer method, an analysis to support the entity’s expectation that the hedged item is anticipated to be outstanding as of the hedged item’s assumed maturity date (see paragraph 815-20-25-12A(a) for additional guidance).

Pending Content:

Transition Date: (P) December 16, 2022; (N) December 16, 2023 | **Transition Guidance:** 815-20-65-6

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- c. Documentation requirement applicable to fair value hedges only:
 1. For a fair value hedge of a **firm commitment**, a reasonable method for recognizing in earnings the asset or liability representing the gain or loss on the hedged firm commitment.
 2. For one or more interest rate risk hedging relationships designated under the portfolio layer method, an analysis to support the entity’s expectation that the **hedged layer** or layers is anticipated to be outstanding for the designated hedge period (see paragraph 815-20-25-12A for additional guidance).

Fair value hedges of firm commitments require documentation of the method for recognizing the gain or loss on the firm commitment, which would otherwise not be recognized for accounting purposes absent its designation as the hedged item in fair value hedge. See chapter 5 for discussion of firm commitments in a fair value hedge.

Separately, if an entity designates a hedging relationship under the portfolio layer method (or last-of-layer method prior to the adoption of ASU 2022-01), it must perform and document an analysis at hedge inception supporting its expectation the hedged item or items (that is, the hedged layer or layers in aggregate) are anticipated to be outstanding for the designated hedge period(s). See section 5.3.4A for discussion of the portfolio layer method (after the ASU 2022-01) and section 5.3.4 for discussion of the last-of-layer method (before the ASU 2022-01).

4.4.3 Changing hedge designations (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Implementation Guidance and Illustrations

Changes in Quantitative Assessment Methods

815-20-55-56

This Subtopic permits a hedging relationship to be dedesignated (that is, discontinued) at any time. (See paragraphs 815-25-40-1(c) and 815-30-40-1(c).) If an entity wishes to change any of the critical terms of the hedging relationship (including the method designated for use in assessing hedge effectiveness), as documented at inception, the mechanism provided in this Subtopic to accomplish that change is the dedesignation of the original hedging relationship and the designation of a new hedging relationship that incorporates the desired changes. However, as discussed in paragraph 815-30-35-37A, a change to the hedged risk in a cash flow hedge of a forecasted transaction does not result in an automatic dedesignation of the hedging relationship if the hedging instrument continues to be highly effective at achieving offsetting cash flows associated with the hedged item attributable to the revised hedged risk. The dedesignation of an original hedging relationship and the designation of a new hedging relationship represents the application of this Subtopic and is not a change in accounting principle under Topic 250, even though the new hedging relationship may differ from the original hedging relationship only with respect to the method designated for use in assessing the hedge effectiveness of that hedging relationship. Although paragraph 815-20-35-19 refers to discontinuing an existing hedging relationship and then designating and documenting a new hedging relationship using an improved method for assessing effectiveness, that reference was not meant to imply that the perceived improved method had to be justified as a preferable method of applying an accounting principle under Topic 250.

815-20-55-56A

For the purposes of applying the guidance in paragraph 815-20-55-56, a change in the counterparty to a derivative instrument that has been designated as the hedging instrument in an existing hedging relationship would not, in and of itself, be considered a change in a critical term of the hedging relationship.

Derivatives and Hedging – Cash Flow Hedges

Subsequent Measurement

Change in Designated Hedged Risk

815-30-35-37A

If the designated hedged risk changes during the life of a hedging relationship, an entity may continue to apply hedge accounting if the hedging instrument is highly effective at achieving offsetting cash flows attributable to the revised hedged risk. The guidance in paragraph 815-20-55-56 does not apply to changes in the hedged risk for a cash flow hedge of a forecasted transaction.

Entities can change their hedge designations or the terms of a hedging relationship, but these changes cannot be applied retroactively to previous periods. For example, if an entity wishes to change any of the critical terms of a hedging relationship or identifies an improved method of assessing effectiveness and

wants to apply that method prospectively, it must discontinue the existing hedging relationship and designate the relationship anew under the new method⁷⁶. The redesignation must be fully documented in the same manner as the original designation. Similarly, a derivative can be redesignated in a hedging relationship involving a different asset, liability or forecasted transaction.



Reference rate reform considerations

ASC 848 provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: For all types of hedging relationships (i.e., fair value, cash flow and net investment), this guidance allows an entity to change the reference rate in the hedging instrument and/or hedged item, as well as other critical terms, without having to dedesignate the hedging relationship, if certain criteria are met. In addition, the guidance allows entities to change the designated hedging instrument in a fair value or cash flow hedge by combining one or more derivatives to be jointly designated and subsequently removing one or more of the derivatives added without dedesignating the hedging relationship. Entities may also change the designated benchmark interest rate (in a fair value hedge) or hedged interest rate risk (in a cash flow hedge), as well as the method used to assess hedge effectiveness in cash flow hedges (and to a lesser extent fair value hedges), in certain situations without having to dedesignate the hedge.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [***A closer look at the FASB accounting relief related to reference rate reform.***](#)

In addition, if a derivative is not designated in a hedging relationship when it is first entered into, it can be subsequently designated as a hedge but, again, only on a prospective basis. Appropriate, timely documentation for these designations (and dedesignations, if applicable) is essential. Also, when either redesignating a hedging instrument or designating a derivative in a hedging relationship sometime after entering the derivative, the entity must consider the fact that the derivative is likely now “off market,” or no longer has a fair value of zero. This has ramifications in assessing prospective effectiveness in both fair value (i.e., hedges of benchmark interest rate risk using benchmark component cash flows) and cash flow hedges.⁷⁷

The requirements for the derivative to be highly effective and to be designated to a specific hedged item are the most essential hedge accounting criteria pertaining to the derivative itself.

See section 4.9.5.1 for discussion of the effect of novations on hedging relationships.

4.4.4 Rollover hedging strategies

When an entity designates a hedging relationship that uses a derivative with a maturity that extends approximately to the date the forecasted transaction is expected to occur, the derivative “locks in” a price or rate for the entire term of the hedge, provided the hedging instrument is held for the hedged period. However, entities commonly use a rollover strategy that involves continuously establishing short-term derivatives (such as futures or options) in consecutive contract months to hedge a forecasted

⁷⁶ As part of its existing project on hedge accounting improvements, the FASB is considering potential improvements to clarify the application of the change in designated hedged risk guidance. Interested parties should monitor developments in this area.

⁷⁷ See discussion in section 6.3.2 on designating a non-zero fair value derivative in a cash flow hedging relationship.

transaction. In a rollover strategy, the complete series of derivatives is not acquired at the inception of the hedge; rather, short-term derivatives are acquired throughout the hedging period such that maturing derivatives are replaced with new short-term derivatives.

Originally, the FASB was opposed to allowing this strategy because a single short-term derivative by itself is not effective at locking in a specific price or rate over the entire period the forecasted transaction is expected to occur. Because of the commonality of rollover hedging strategies and because, from a risk management perspective, the results are similar to the results of using a single long-term derivative, the FASB has permitted the use of rollover hedging strategies.

4.4.5 Considerations for certain private company and not-for-profit entities

ASC 815 provides additional relief to private companies that are not financial institutions and certain not-for-profit entities (i.e., those that have not issued, or are not a conduit bond obligor for, securities that are traded, listed or quoted on an exchange or an over-the-counter market). These entities have until the date on which the next interim (if applicable) or annual financial statements are available to be issued⁷⁸ to document and/or perform the following:

- ▶ The method that will be used to assess hedge effectiveness
- ▶ The initial hedge effectiveness assessment
- ▶ Subsequent quarterly hedge effectiveness assessments

Because the method of assessing hedge effectiveness does not need to be documented at hedge inception, private companies and not-for-profit entities that qualify for this documentation relief are not precluded from electing a qualitative assessment method, such as the shortcut or critical terms match method, after hedge inception but before the date on which the next interim (if applicable) or annual financial statements are available to be issued.

However, these entities must complete their initial and ongoing assessment of hedge effectiveness using information as of each assessment date. For example, a calendar-year private company that issues only annual financial statements and enters into a hedging relationship on 3 January 20X8 could wait more than a year to complete its initial and quarterly subsequent assessments. However, prior to the date on which its financial statements are available to be issued, the entity would need to complete five separate assessments using information as of hedge inception and each quarterly assessment date to determine whether the hedging relationship was highly effective throughout the year.

Private companies and not-for-profit entities that qualify for this relief are still required to document the following information at hedge inception:

- ▶ The hedging relationship
- ▶ The hedging instrument
- ▶ The hedged item⁷⁹
- ▶ The nature of the risk being hedged

⁷⁸ Financial statements are considered available to be issued when they are complete in a form and format that comply with US GAAP and all approvals necessary for issuance have been obtained (e.g., from management, the board of directors, significant shareholders). The process involved in creating and distributing the financial statements will vary depending on an entity's management and corporate governance structure, as well as statutory and regulatory requirements.

⁷⁹ ASC 815-20-25-139 (c) indicates that, if applicable, the required analysis supporting a portfolio layer method hedge designation (or last-of-layer hedge designation prior to the adoption of ASU 2022-01) should be part of the documentation of the hedged item completed at hedge inception.

It should be noted that this relief differs from the relief provided in the simplified hedge accounting approach that certain private companies can elect for hedges of variable-rate debt (discussed in section 4.8.3.3). Under the simplified hedge accounting approach,⁸⁰ a qualifying company has until the date on which the first annual financial statements are available to be issued to complete all of its hedge documentation. However, given the broader applicability of the relief provided in ASU 2017-12, the FASB determined that private companies and certain not-for-profit entities should be required to document their intent to hedge (along with other basic information about the hedging relationship) at the inception of the hedge so that these entities would not have the benefit of hindsight when determining whether to designate a derivative instrument as part of a hedging relationship.

4.5 Permissible hedging strategies and limitations on hedging instruments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Eligibility of Hedging Instruments

815-20-25-45

Either all or a proportion of a derivative instrument (including a compound embedded derivative that is accounted for separately) may be designated as a hedging instrument. Two or more derivative instruments, or proportions thereof, may also be viewed in combination and jointly designated as the hedging instrument. A proportion of a derivative instrument or derivative instruments designated as the hedging instrument shall be expressed as a percentage of the entire derivative instrument(s) so that the profile of risk exposures in the hedging portion of the derivative instrument(s) is the same as that in the entire derivative instrument(s). Subsequent references in the Derivatives and Hedging Topic to a derivative instrument as a hedging instrument include the use of only a proportion of a derivative instrument as a hedging instrument. Whether a written option may be designated as a hedging instrument depends on the terms of both the hedging instrument and the hedged item as discussed beginning in paragraph 815-20-25-94.

ASC 815 permits separation of a hedged item or transaction by risk and allows management to define how it will assess hedge effectiveness. Accordingly, the FASB decided that it was important that, to the extent possible, the gain or loss on the derivative be an objectively determined, market-based amount rather than an amount “separated out” of an overall gain or loss on the derivative as a whole. The FASB believed that the cost of increased complexity caused by separating compound derivatives exceeded the benefits.

Therefore, compound derivatives must be treated as a single derivative for purposes of ASC 815. However, they can still be used as hedging instruments, but they must be highly effective in their entirety at hedging a specific item. Consider the following example: If an entity has 10-year fixed-rate debt with a call option at the end of three years, it could use a 10-year receive-fixed/pay-variable interest rate swap with a cancellation option after three years as a hedging instrument. The cancellation option makes this instrument a compound derivative, often referred to as a “cancelable swap.” The cancelable swap is highly effective at hedging the callable debt in this example, and therefore, could be designated in a fair value hedge of the callable fixed-rate debt. In contrast, a cancelable swap would not be highly effective at hedging noncallable debt.

An index-amortizing swap is a swap agreement where the notional amount of the swap declines at predetermined increments if an interest rate index (e.g., SOFR) declines in a future period. Under ASC 815, these are considered compound derivatives that combine a swap with a series of cancellation options. An index-amortizing swap may be highly effective as a fair value hedge of an index-amortizing debt instrument, such as a mortgage-backed instrument, if the swap notional amortizes in a manner that is consistent with the instrument’s principal paydowns.

⁸⁰ Provided for certain private companies under ASU 2014-03, *Derivatives and Hedging (Topic 815): Accounting for Certain Receive-Variable, Pay-Fixed Interest Rate Swaps – Simplified Hedge Accounting Approach*.

How we see it

Some swaps are structured such that the interest rate on the entity's "pay fixed" leg is lower than the plain vanilla market swap rate because the bank counterparty is able to cancel the swap for no value at the bank's discretion.

Entities may believe they have legitimate economic reasons to enter such swaps, perhaps because they accepted a calculated risk that the interest rate ranges that would motivate the bank to cancel, or "knock out," the swap were unlikely to occur, but the presence of cancellation or knockout features eliminates the hedging symmetry of the swap. These features effectively represent options written by the entity because they give the bank the right to cancel the swap. Based on the guidance in ASC 815-20-25-88, that combining a written option with any other non-option derivative instrument results in a derivative instrument that is considered a written option, the presence of these cancellation features makes the entire contract a written option from the entity's perspective. Therefore, these instruments can only be designated as hedging instruments under ASC 815 if they pass the written option test discussed in section 4.5.1 below.⁸¹

These types of instruments would likely only be effective in hedges of instruments (e.g., callable debt) in which the entity holds an economically offsetting option. The implication of this limited hedging purpose is that nearly all such instruments must be marked to market through earnings.

4.5.1 Hedge limitations involving written options

A written option is an option contract whereby the issuer of the contract receives a premium for selling to the holder the right to exercise the option. If the option is exercised by the holder, the option writer must effectively make a payment to the option holder or settle its liability in a similar fashion (e.g., by purchasing the underlying at a price greater than the current market price). An option contract is always a written option to one party and a purchased option to another.

In most written option situations, the writer has given up control and is being compensated up front (i.e., through a premium) for remaining exposed to risk. The maximum gain potential for an option writer is equal to the initial premium received and will be realized if the option expires worthless and no subsequent payment is required. In a typical scenario, the purchaser acquires the option to offset a possible future risk exposure, while the seller of the option is compensated up front for assuming the possible future risk exposure from the purchaser.

For example, if an entity sells a call option on its fixed-rate bond portfolio, the entity has given away its rights to benefit from certain increases in value due to an overall decrease in market interest rates. If interest rates decline, the holder of the option will most likely exercise its right to purchase the portfolio from the issuer of the option, forcing the issuer to sell the bonds to the holder at a below-market price, the strike price of the option. If interest rates rise, the option will go unexercised. The fair value of the bonds will decrease, and the issuer of the option will earn a below-market yield on its investment in the bonds. Because the writer has no control over the exercise of the option, the option does not help it control interest rate risk regardless of the direction of change in value of the underlying.

Some would argue that the premium received was, in effect, a partial hedge against an interest rate increase for the writer. This notion conflicts with ASC 815 which requires that the derivative's change in value, not the premium received, offsets the change in the hedged item.

⁸¹ As part of its existing project on hedge accounting improvements, the FASB is considering potential amendments to the written option guidance that could broaden the ability for entities to hedge with written options in certain circumstances. Interested parties should monitor developments in this area.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedge Effectiveness of Written Options

815-20-25-94

If a written option is designated as hedging a recognized asset or liability or an unrecognized firm commitment (if a fair value hedge) or the variability in cash flows for a recognized asset or liability or an unrecognized firm commitment (if a cash flow hedge), the combination of the hedged item and the written option provides either of the following:

- a. At least as much potential for gains as a result of a favorable change in the fair value of the combined instruments (that is, the written option and the hedged item, such as an embedded purchased option) as exposure to losses from an unfavorable change in their combined fair value (if a fair value hedge)
- b. At least as much potential for favorable cash flows as exposure to unfavorable cash flows (if a cash flow hedge).

815-20-25-95

The written-option test in the preceding paragraph shall be applied only at inception of the hedging relationship and is met if all possible percentage favorable changes in the underlying (from zero percent to 100 percent) would provide either of the following:

- a. At least as much gain as the loss that would be incurred from an unfavorable change in the underlying of the same percentage (if a fair value hedge)
- b. At least as much favorable cash flows as the unfavorable cash flows that would be incurred from an unfavorable change in the underlying of the same percentage (if a cash flow hedge).

815-20-25-96

The time value of a written option (or net written option) may be excluded from the written-option test if, in defining how hedge effectiveness will be assessed, the entity specifies that it will base that assessment on only changes in the option's intrinsic value. In that circumstance, the change in the time value of the options would be excluded from the assessment of hedge effectiveness in accordance with paragraph 815-20-25-82(a).

815-20-25-97

When applying the written-option test to determine whether there is symmetry of the gain and loss potential of the combined hedged position for all possible percentage changes in the underlying, an entity is permitted to measure the change in the intrinsic value of the written option (or net written option) combined with the change in fair value of the hedged item.

ASC 815 limits the use of written options as hedges. A written option is permitted to be designated as a hedging instrument under ASC 815 only if the combination of the hedged item and the written option provides at least as much potential for gains as a result of favorable changes in the fair value of the combined instruments⁸² as exposure to losses from unfavorable changes in their combined fair value. In other words, a percentage favorable change in the fair value of the combined instruments provides at least as much gain as would the loss incurred from an unfavorable change of the same percentage. This analysis is referred to as the "written option test" and is illustrated in ASC 815-20-55-230 through 55-234 below.

⁸² "Combined instruments" refers to the written option and the hedged item, such as an embedded purchased option.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Implementation Guidance and Illustrations

Example 30: Application of the Net Written Option Test to Collar-Based Hedging Relationships

815-20-55-230

This Example illustrates the application of paragraph 815-20-25-95.

815-20-55-231

Entity X has LIBOR-indexed floating-rate debt. To hedge its exposure to variability in expected future cash outflows attributable to changes in **LIBOR swap rate** (the contractually specified interest rate), it enters into an interest rate collar with a bank when the current LIBOR swap rate is 6 percent. The collar also is indexed to LIBOR and consists of a purchased cap with the strike rate equal to 8 percent and a written floor with the strike rate equal to 5 percent. The purchased cap goes into effect when LIBOR increases above 8 percent, and the written floor goes into effect when LIBOR decreases below 5 percent. Thus, the interest collar has the effect of limiting the interest rate of the floating-rate debt to a range between 5 percent and 8 percent. On the basis of market conditions as of the collar transaction date, Entity X received a net premium from the bank.

815-20-55-232

In accordance with paragraphs 815-20-25-88 through 25-90, the combination of options in the collar in this Example is a net written option from Entity X's perspective. Therefore, the written-option test in paragraphs 815-20-25-94 through 25-95 must be applied to determine whether the hedging relationship between the debt and the collar qualifies for cash flow hedge accounting. That test requires that the combination of the hedged item and the written option provides at least as much potential for favorable cash flows as exposure to unfavorable cash flows for all possible percentage changes (from zero percent to 100 percent) in the LIBOR index.

815-20-55-233

The following table shows the calculation of the favorable cash flows and unfavorable cash flows for LIBOR changes of 50 percent.

Potential Cash Flows of the Combination of the Hedge Item and the Net Written Option If LIBOR Moves Each Direction by the Same Percentage

| | LIBOR at Inception | LIBOR Increase 50% | LIBOR Decrease 50% |
|---|-----------------------|-----------------------|-----------------------|
| Cash outflows on LIBOR-indexed debt | 6.00% | 9.00% | 3.00% |
| Cash outflows on written floor | 0.00 | 0.00 | 2.00 |
| Less: Cash inflows on purchased cap | 0.00 | 1.00 | 0.00 |
| Net cash flow (outflows + / inflows -) | <u>6.00%</u> | <u>8.00%</u> | <u>5.00%</u> |
| | | Unfavorable | Favorable |
| Cash in cash flows of combination from inception (in basis points) | | 200 | -100 |
| Percentage change in cash flows of combination from inception | | 33.33% | -16.67% |

815-20-55-234

The calculations in the table in paragraph 815-20-55-233 demonstrate that for a 50 percent fluctuation in the LIBOR rate, the collar would fail the written-option test in paragraph 815-20-25-94 because a 50 percent favorable change in LIBOR (that is, a decrease) would not provide at least as much favorable cash flows as unfavorable cash flows that would result from a 50 percent unfavorable change in LIBOR (that is, an increase). Therefore, the combination of options would not be an eligible hedging instrument.

A written option by itself (that is not working in combination with another purchased option) will generally not qualify as a hedge under ASC 815. In addition, as shown in the example above, even when the written option is used in combination with another purchased option, the combination of options may not qualify as an eligible hedging instrument when the combination is viewed as a net written option. As a result, many written (and net written) options will have to be recorded at fair value, with the changes in fair value recognized in income each period without offset. However, if the written option is combined in a hedging relationship with a recognized asset or liability such that the combination of the hedged item and the written option provides at least as much gain potential (as a result of a favorable change in the fair value of combined instruments) as loss potential (from an unfavorable change in their combined fair value), the written option can qualify for hedge accounting.

For this to be the case, there generally will need to be a purchased option embedded in the hedged item whose terms mirror those of the written option. The most common example of written options qualifying for hedge accounting under ASC 815 are options (1) used in collars, in which written and purchased options are combined to hedge an exposure, and (2) written as hedges of purchased options embedded but not bifurcated from existing assets and liabilities, such as callable debt.

4.5.1.1

Collars

Collars are very common derivative instruments that involve combining a purchased option, which on a standalone basis would require an entity to pay a premium, with a written option, which on a standalone basis would result in an entity receiving a premium.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Determining Whether a Combination of Options Is Net Written

815-20-25-88

This guidance addresses how an entity shall determine whether a combination of options is considered a net written option subject to the requirements of paragraph 815-20-25-94. A combination of options (for example, an interest rate collar) entered into contemporaneously shall be considered a written option if either at inception or over the life of the contracts a net premium is received in cash or as a favorable rate or other term. Furthermore, a derivative instrument that results from combining a written option and any other non-option derivative instrument shall be considered a written option. The determination of whether a combination of options is considered a net written option depends in part on whether strike prices and notional amounts of the options remain constant.

Strike Prices and Notional Amounts Remain Constant

815-20-25-89

For a combination of options in which the strike price and the notional amount in both the written option component and the purchased option component remain constant over the life of the respective component, that combination of options would be considered a net purchased option or a zero cost collar (that is, the combination shall not be considered a net written option subject to the requirements of paragraph 815-20-25-94) provided all of the following conditions are met:

- a. No net premium is received.
- b. The components of the combination of options are based on the same underlying.
- c. The components of the combination of options have the same maturity date.
- d. The notional amount of the written option component is not greater than the notional amount of the purchased option component.

815-20-25-90

If the combination of options does not meet all of those conditions, it shall be subject to the test in paragraph 815-20-25-94. For example, a combination of options having different underlying indexes, such as a collar containing a written floor based on three-month U.S. Treasury rates and a purchased cap based on three-month London Interbank Offered Rate (LIBOR), shall not be considered a net purchased option or a zero cost collar even though those rates may be highly correlated.

Combinations that result in no net premium (i.e., a “costless” or zero-cost collar) or result in a net premium paid by the entity intending to hedge can generally be used as hedging instruments. Combinations that result in a net premium received, on the other hand, may fail the test and would be considered a *net written option*, generally ineligible for hedge accounting under ASC 815. Also considered net written options are any compound derivatives consisting of a written option embedded in another derivative, such as a cancelable swap or an index-amortizing swap. Note that in these cases the net premium received consists of a favorable rate or term, instead of cash. Such combinations are considered to have greater downside risk than upside potential; otherwise, the counterparty would not have compensated the holder of the combination.

In addition to no net premium received, ASC 815-20-25-89 and 25-90 clarifies that for a combination of options to be considered a net purchased option or a zero-cost collar, the components of the option combination must be based on the same underlying and have the same maturity date. In addition, the notional amount of the written option component cannot be greater than the notional amount of the purchased option component.

For example, financial institutions might use interest rate collars to manage their interest expense risk within certain rate corridors, and/or their interest income risk. With respect to interest expense, the “cap” is the purchased option and the “floor” is the written option. With respect to interest income, the “floor” is the purchased option and the “cap” is the written option. Other entities in the business of purchasing or selling commodities may use commodity derivative collars to manage the price “highs” and “lows” at which such purchases and sales will be transacted.

Sometimes it is difficult to tell which party wrote the option and which party purchased the option, particularly when a combination of options is present. To assist in the determination, ASC 815 specifically states that a combination of options entered into contemporaneously is considered a written option if a net premium is received in cash or as a favorable rate or other term.

As a result, some collar strategies that contain a purchased option in combination with a written option will not be considered a net written option because a higher premium was paid for the purchased option than was received for the written option. If so, these collar strategies or combination of options are not subject to the requirements of the written option test in ASC 815.⁸³

The FASB has also clarified that the test can be performed considering only changes in intrinsic value and excluding an option’s time value. In some cases, if the time value of the option were included in the test, the potential gains or losses would not be equivalent or symmetrical. This can result when the purchased put and written call have different time values, and for a specific change in the underlying, the relative change in time value for each option is different. If the FASB had not permitted time value to be excluded from the written option test, many hedging relationships would have likely failed the test.

⁸³ ASC 815-20-25-91 through 25-93 and ASC 815-20-25-10 address more complex collar hedging arrangements. ASC 815-20-25-91 through 25-93 describes how to apply the written option test to option combinations where the strike prices and the notional amounts (or both) do not remain constant over the life. ASC 815-20-25-10 discusses how a hedge should be designated in a zero-cost collar when the notional amount of the purchased option component exceeds that of the written option component.

How we see it

ASC 815-20-25-96 states that an entity may elect to exclude the time value of the net written option from the written option test. For example, consider a fair value hedge of gold inventory with a current fair value of \$50. An entity purchases a put with a strike price of \$40 (ensuring that it can always sell the gold for \$40 if necessary) but writes a call option with a strike price of \$60 (whereby the counterparty can call the gold from the entity at \$60).

If the underlying inventory increases in value by 50% to \$75, the intrinsic value of the written call will decrease from zero to a loss of \$15 ($\$75 - \60). If the underlying gold inventory decreases in value by 50% to \$25, the intrinsic value of the purchased put will increase from zero to a gain of \$15. However, despite the symmetrical behavior of the relationship described above, the market may view the likelihood that the underlying gold price will increase as greater than the likelihood that it will decrease, so a counterparty to both the put and the call is willing to pay a net premium to the entity – a fact pattern that makes this purchased put/written call combination a “net written option.”

However, if the entity elects to exclude consideration of the time value of this net written option from the written option test, it will be able to demonstrate that the combination of the hedged gold inventory's price change and the net written option's *intrinsic value* provides at least as much potential for gains as a result of a favorable change in their respective prices as exposure to losses from an unfavorable change in their respective prices.

4.5.1.2

Call monetization

This is a strategy sometimes used by entities that have issued fixed-rate debt with an embedded call option (i.e., a purchased call option from the debt issuer's perspective). The embedded option enables the issuer of the debt to call (i.e., retire) the debt early if market interest rates are advantageous (i.e., interest rates decline). The issuer must “pay” for this option, typically by compensating the investor through a higher coupon rate of interest than would be required for non-callable debt at the same maturity.

Under the call monetization strategy, the debt issuer sells (writes) an option on an interest rate swap that requires it to pay a stipulated fixed interest rate. Some entities may wish to apply hedge accounting to this strategy by designating the written option as a hedge of changes to the overall fair value of the embedded purchased option. The embedded option in the debt is “clearly and closely” related to the debt host and, therefore, is not ordinarily bifurcated. However, if the issuer sells an option and is able to designate it as a hedge of the embedded option in a fair value hedging relationship, the embedded option is effectively bifurcated as a consequence of applying fair value hedge accounting.

Under fair value hedge accounting, changes in the fair value of both the written option and the embedded purchased option would be reflected in earnings. For example, a decrease in interest rates would result in both options increasing in value, while an increase in interest rates would cause both options to decrease in value. Because the debt issuer records the written option as a liability and the purchased option as an asset (reflected as a contra-liability), changes in interest rates could result in offsetting gains and losses and, therefore, result in an effective hedge, all else being equal. In either case, the carrying value of the debt will change because changes in the value of the embedded call option are being recorded by adjusting the carrying amount of the debt on the balance sheet.

To the extent the carrying value of the debt has been reduced to reflect increases in the value of the embedded option, an entity will typically recognize a loss when it calls the debt since it will generally be required to call the debt at an amount (such as par) that exceeds the carrying value (which has been adjusted downward as the value of the hedged embedded call increased).⁸⁴ If the carrying value of the debt has been increased to reflect decreases in the value of the embedded option, then it is likely the debt will not be called.

⁸⁴ Note that the written option can be exercised independently of the entity's decision to call its debt.

In this situation (i.e., when the debt is not called on the call date), the carrying value would need to be amortized down to par value over the remaining life of the debt, which would result in a reduction of interest expense over the life of the debt after the call date.

How we see it

While the call monetization strategy is discussed in ASC 815 and an example is provided in ASC 815-25-55-27 through 55-29, constituents have noted that applying hedge accounting to this strategy is very complex and nearly unachievable in practice.

This is because ASC 815 requires an entity to hedge the *overall* change in fair value of the embedded purchased option, and that change reflects changes in the debt issuer's credit spread in addition to changes in interest rates. This creates complexity when applying the written option test discussed in section 4.5.1. It can also result in the hedge not being highly effective because changes in the fair value of the written option are generally only affected by changes in the benchmark interest rate.

The FASB recently declined a request to add a project to its technical agenda to address the application of hedge accounting to this strategy. In that request, a constituent had asked that the FASB consider amending the guidance in ASC 815 to allow entities to hedge changes in the fair value of the embedded purchased option due solely to changes in the benchmark interest rate, consistent with the approach allowed for fair value hedges of fixed-rate callable debt. The Board stated that this issue was not pervasive enough to address in a separate project but agreed to consider whether to address the call monetization strategy as part of its Hedge Accounting–Phase 2 research project.

4.5.1.3

Covered calls

ASC 815 does not permit hedge accounting for what is commonly referred to as a covered call. In a covered call, an entity writes a call option on one of its assets. Thus, if the holder exercises the option, the entity does not have to go into the market to purchase the asset because it already owns the asset in sufficient quantities to cover the call without incurring an accounting loss. Typically, the call option locks in a profit because the exercise price is high enough that if it were exercised, the entity would recognize a gain.

However, under ASC 815, changes in the fair value of the option do not offset changes in the fair value of the asset if the fair value of the asset decreases. Therefore, hedge accounting is not allowed.

4.6 Permissible hedging strategies and limitations on hedged items

4.6.1 The hedged item could affect earnings

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- c. The forecasted transaction meets both of the following conditions:
 2. It presents an exposure to variations in cash flows for the hedged risk that could affect reported earnings.

Hedged Item Criteria Applicable to Fair Value Hedges Only***815-20-25-12***

An asset or a liability is eligible for designation as a hedged item in a fair value hedge if all of the following additional criteria are met:

- c. The hedged item presents an exposure to changes in fair value attributable to the hedged risk that could affect reported earnings. The reference to affecting reported earnings does not apply to an entity that does not report earnings as a separate caption in a statement of financial performance, such as a not-for-profit entity (NFP), in accordance with paragraph 815-20-15-1.

This provision eliminates the possibility of hedging undeclared dividends between subsidiaries and the parent (i.e., for foreign exchange risk). It also eliminates any transactions that are permanently recognized in equity, such as the anticipated cash flows of a stock offering. It does not eliminate hedging transactions that are only temporarily recognized in equity, such as the change in fair value of an available-for-sale debt security, that when sold will be recognized through earnings.

4.6.2**Hedged forecasted transaction must be with an external third party****Excerpt from Accounting Standards Codification****Derivatives and Hedging – Hedging-General*****Recognition******Hedged Transaction Criteria Applicable to Cash Flow Hedges Only******815-20-25-15***

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- c. The forecasted transaction meets both of the following conditions:
 1. It is a transaction with a party external to the reporting entity (except as permitted by paragraphs 815-20-25-30 and 815-20-25-38 through 25-40).

As discussed in detail in chapter 7, the FASB decided to accommodate cash flow hedges of the foreign exchange risk in forecasted intercompany foreign currency transactions. However, for other than foreign currency hedges, ASC 815 requires that the forecasted transaction be with a party external to the reporting entity to qualify as a hedged transaction. Forecasted transactions between members of a consolidated entity, except for intercompany transactions denominated in a foreign currency, are not hedgeable transactions except for purposes of separate standalone subsidiary financial statements.

Thus, a consolidated entity cannot apply hedge accounting to forecasted intercompany transactions unless the risk being hedged is a foreign currency exposure. A subsidiary could, however, apply hedge accounting to a hedge of a forecasted intercompany transaction in its separate, standalone financial statements because those transactions are with a party “external to” the reporting entity in those standalone statements.

How we see it

As noted in ASC 815-20-25-46A, there is no requirement that the operating unit with the interest rate, market price or credit risk exposure be a party to the hedging instrument. Thus, for example, a parent company's central treasury function can enter into a derivative contract with a third party and designate it as the hedging instrument in a hedge of a subsidiary's interest rate risk for purposes of the consolidated financial statements. However, if the subsidiary wishes to qualify for hedge accounting of the interest rate exposure in its separate entity financial statements, the subsidiary (as the reporting entity) must be a party to the hedging instrument, which can be an intercompany derivative obtained from the central treasury function. Thus, an intercompany derivative for interest rate risk can qualify for designation as the hedging instrument in separate entity financial statements but not in consolidated financial statements.

4.6.3

The hedged item cannot be remeasured through earnings

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- d. The forecasted transaction is not the acquisition of an asset or incurrence of a liability that will subsequently be remeasured with changes in fair value attributable to the hedged risk reported currently in earnings.
- e. If the forecasted transaction relates to a recognized asset or liability, the asset or liability is not remeasured with changes in fair value attributable to the hedged risk reported currently in earnings.

Items Specifically Ineligible for Designation as a Hedged Item or Transaction

815-20-25-43

Besides those hedged items and transactions that fail to meet the specified eligibility criteria, none of the following shall be designated as a hedged item or transaction in the respective hedges:

- c. With respect to fair value hedges only:
 - 3. An asset or liability that is remeasured with the changes in fair value attributable to the hedged risk reported currently in earnings

This provision precludes hedging a security accounted for at fair value through earnings under ASC 320 (e.g., a debt security held in a trading portfolio). In addition, as discussed in section 4.6.11, ASC 815-20-25-43 precludes all equity investments in the scope of ASC 321 from being an eligible hedged item, including equity investments without readily determinable fair values accounted for under the measurement alternative in ASC 321-10-35-2. However, hedging an available-for-sale debt security is not precluded. Changes in the available-for-sale debt security are recorded in OCI (equity) and not directly in earnings in accordance with ASC 320. This provision also precludes hedging any financial instrument for which the fair value option of either ASC 815-15-25-4 through 25-6 or ASC 825 has been elected.

ASC 815 allows the foreign exchange risk of foreign-currency-denominated assets and liabilities (e.g., bonds, loans, receivables and payables) to be hedged items in a fair value or cash flow hedge. See section 7.9 for further discussion. This provision also applies to hedges of forecasted transactions. ASC 815 precludes hedging the anticipated purchase of a trading security under ASC 320 or an anticipated purchase of an equity security subsequently accounted for at fair value. Further, forecasted purchases of assets where the asset itself is not remeasured at fair value through earnings would not be considered the incurrence of a transaction that is ultimately remeasured at fair value through earnings. This provision applies only to the item being purchased and sold and not to the receivable or payable incurred.

It should be noted that even though items that are remeasured at fair value through earnings cannot qualify for hedge accounting (e.g., a debt security classified as trading), a derivative can be entered into that may naturally offset (or partially offset) the change in fair value of the item. The item will be adjusted to fair value through earnings at the same time the derivative, which does not qualify as a hedge for accounting purposes, is also adjusted to fair value through earnings. If the adjustments substantially offset one another, the effect is often referred to as an “economic hedge.”

4.6.4 Hedging financial risk components

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- j. If the hedged transaction is the forecasted purchase or sale of a financial asset or liability (or the interest payments on that financial asset or liability) or the variable cash inflow or outflow of an existing financial asset or liability, the designated risk being hedged is any of the following:
 1. The risk of overall changes in the hedged cash flows related to the asset or liability, such as those relating to all changes in the purchase price or sales price (regardless of whether that price and the related cash flows are stated in the entity’s functional currency or a foreign currency)
 2. For forecasted interest receipts or payments on an existing variable-rate financial instrument, the risk of changes in its cash flows attributable to changes in the contractually specified interest rate (referred to as interest rate risk). For a forecasted issuance or purchase of a debt instrument (or the forecasted interest payments on a debt instrument), the risk of changes in cash flows attributable to changes in the benchmark interest rate or the expected contractually specified interest rate. See paragraphs 815-20-25-19A through 25-19B for further guidance on the designation of interest rate risk in the forecasted issuance or purchase of a debt instrument.
 3. The risk of changes in the functional-currency-equivalent cash flows attributable to changes in the related foreign currency exchange rates (referred to as foreign exchange risk)
 4. The risk of changes in its cash flows attributable to all of the following (referred to as credit risk):
 - i. Default
 - ii. Changes in the obligor’s creditworthiness

- iii. Changes in the spread over the contractually specified interest rate or benchmark interest rate with respect to the related financial asset's or liability's credit sector at inception of the hedge.

Hedged Item Criteria Applicable to Fair Value Hedges Only

815-20-25-12

An asset or a liability is eligible for designation as a hedged item in a fair value hedge if all of the following additional criteria are met:

- f. If the hedged item is a financial asset or liability, a recognized loan servicing right, or a nonfinancial firm commitment with financial components, the designated risk being hedged is any of the following:
 - 1. The risk of changes in the overall fair value of the entire hedged item
 - 2. The risk of changes in its fair value attributable to changes in the designated benchmark interest rate (referred to as interest rate risk)
 - 3. The risk of changes in its fair value attributable to changes in the related foreign currency exchange rates (referred to as foreign exchange risk)
 - 4. The risk of changes in its fair value attributable to both of the following (referred to as credit risk):
 - i. Changes in the obligor's creditworthiness
 - ii. Changes in the spread over the benchmark interest rate with respect to the hedged item's credit sector at inception of the hedge.
 - 5. If the risk designated as being hedged is not the risk in paragraph 815-20-25-12(f)(1), two or more of the other risks (interest rate risk, foreign currency exchange risk, and credit risk) may simultaneously be designated as being hedged.

For financial instruments, ASC 815 permits hedge accounting for hedges of changes in fair value or variability of future cash flows resulting from changes in the following types of risk: market price risk, interest rate risk (i.e., changes in the designated benchmark interest rate for fixed-rate financial instruments or changes in a contractually specified interest rate for variable-rate financial instruments), foreign exchange risk or credit risk. The last three types of risk are all subcomponents of market price risk, which relates to the entire hedged item.

ASC 815 focuses on these four risks because the FASB believes that changes in the price associated with any of these risks will directly affect the fair value of an asset or a liability (or the cash flows of a forecasted transaction) in a determinable or predictable manner, unlike other possible subcomponents of market price risk (e.g., strategic risk). However, hedges of subcomponents of interest rate risk, foreign exchange risk or credit risk are not permitted unless the subcomponents are embodied in a separable portion of a financial instrument. For example, prepayment risk is a subcomponent of interest rate risk, but since it is most often embedded in a written call option within a financial instrument, it can be hedged separately. However, because prepayment risk is a subcomponent of interest rate risk, any hedge of interest rate risk is required to take prepayment risk into account.

4.6.4.1

Hedging interest rate risk (updated September 2023)**Excerpt from Accounting Standards Codification****Master Glossary*****Interest Rate Risk***

For recognized variable-rate financial instruments and forecasted issuances or purchases of variable-rate financial instruments, interest rate risk is the risk of changes in the hedged item's cash flows attributable to changes in the contractually specified interest rate in the agreement.

For recognized fixed-rate financial instruments, interest rate risk is the risk of changes in the hedged item's fair value attributable to changes in the designated benchmark interest rate. For forecasted issuances or purchases of fixed-rate financial instruments, interest rate risk is the risk of changes in the hedged item's cash flows attributable to changes in the designated benchmark interest rate.

Derivatives and Hedging – Hedging-General***Recognition******Hedged Items Involving Interest Rate Risk******815-20-25-6***

Hedges involving a **benchmark interest rate** are addressed in paragraphs 815-20-25-12(f) and 815-20-25-12A (for fair value hedges) and paragraph 815-20-25-15(j) (for cash flow hedges). Hedges involving a contractually specified interest rate are addressed in paragraph 815-20-25-15(j) (for cash flow hedges). The benchmark interest rate or the contractually specified interest rate being hedged in a hedge of **interest rate risk** shall be specifically identified as part of the designation and documentation at the inception of the hedging relationship. Paragraphs 815-20-25-19A through 25-19B provide guidance on the interest rate risk designation of hedges of forecasted issuances or purchases of debt instruments. An entity shall not simply designate prepayment risk as the risk being hedged for a financial asset. However, it can designate the option component of a **prepayable** instrument as the hedged item in a fair value hedge of the entity's exposure to changes in the overall fair value of that prepayment option, perhaps thereby achieving the objective of its desire to hedge prepayment risk. The effect of an **embedded derivative** of the same risk class shall be considered in designating a hedge of an individual risk. For example, the effect of an embedded prepayment option shall be considered in designating a hedge of interest rate risk.

Benchmark Interest Rate***815-20-25-6A***

In the United States, the interest rates on direct Treasury obligations of the U.S. government, the **London Interbank Offered Rate (LIBOR) swap rate**, the **Fed Funds Effective Rate Overnight Index Swap Rate**, the **Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Rate**, and the **Secured Overnight Financing Rate (SOFR) Overnight Index Swap Rate** are considered to be benchmark interest rates. In each financial market, generally only the most widely used and quoted rates may be considered benchmark interest rates.

For variable-rate financial instruments, ASC 815 allows an entity to designate any contractually specified interest rate in the instrument as the hedged risk. For example, an entity could hedge the variability in cash flows of a variable-rate financial instrument due to changes in the prime rate, as long as this rate is contractually specified in the instrument. This guidance applies to cash flow hedges of existing variable-rate financial instruments, as well as the forecasted issuance or purchase of a variable-rate financial instrument.

For fixed-rate financial instruments, the guidance allows an entity to designate changes in the hedged item's fair value attributable to changes in the designated benchmark interest rate as the hedged risk. The "benchmark" interest rate is defined in the Master Glossary of the Codification as "a widely recognized and quoted rate in an active financial market that is broadly indicative of the overall level of interest rates attributable to high-credit-quality obligors in that market." A benchmark interest rate is one that is widely used in a given financial market as an underlying basis for determining the interest rates of individual financial instruments and commonly referenced in interest-rate-related transactions. In theory, a benchmark rate should be a risk-free rate, such as government borrowing rates in some markets. In other markets, the benchmark interest rate may be an interbank offered rate. In each financial market, only the most widely used and quoted rates that meet the above criteria may be considered benchmark interest rates.

ASC 815 explicitly identifies the following US benchmark interest rates that are eligible to be hedged:

- ▶ Rates on direct Treasury Obligations of the US government
- ▶ The London Interbank Offered Rate (LIBOR) Swap Rate⁸⁵
- ▶ The Fed Funds Effective Rate Overnight Index Swap Rate
- ▶ The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Rate
- ▶ The Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate

ASC 815 does not provide any specific guidance about determining benchmark interest rates outside of the US. Accordingly, in these circumstances, entities must rely on the definition of a benchmark interest rate in the Master Glossary of the Codification to determine the foreign currency interest rates that are deemed to qualify for designation as the hedged risk in hedges of non-US-dollar interest rate risk.

How we see it

As part of its project to defer the sunset date in ASC 848, the FASB had proposed amending the Master Glossary to redefine the SOFR Swap Rate so that it would no longer be limited to the SOFR OIS rate. This would have allowed all SOFR-based swap rates, including Term SOFR, to be considered benchmark interest rates eligible to be hedged. However, the Board ultimately decided against changing the definition, noting that the US marketplace continues to be in a state of transition with respect to reference rates.

As a result, the SOFR OIS rate continues to be the only SOFR-based swap rate eligible to be designated as the hedged risk in a fair value hedge of a recognized fixed-rate financial instrument or in a cash flow hedge of a forecasted issuance or purchase of a fixed-rate financial instrument.

The concept of a "benchmark" interest rate came about from constituents' desire to be able to hedge the "risk-free" subcomponent of an interest rate. The interest rate on most financial instruments consists of a risk-free component plus a credit spread. The risk-free component is often considered the rate at which a sovereign government (e.g., the US Treasury) will borrow funds. Because of its taxing authority, a sovereign government is often deemed to have no default risk; therefore, its debt is generally considered risk-free to the holder. Nongovernmental issuers such as corporations must pay a higher interest rate to their lenders than governments pay.

⁸⁵ Subsequent to 30 June 2023, all settings of USD LIBOR ceased being published. As a result, the LIBOR Swap Rate is no longer considered a US benchmark interest rate eligible to be hedged. Although "synthetic USD LIBOR" rates based on CME Term SOFR rates plus the respective ISDA fixed spread adjustment published in March 2021 are expected to be published for certain tenors until 30 September 2024, the Financial Conduct Authority has indicated that synthetic LIBOR is "non-representative," and its use is limited solely and is only intended to enable the transition of certain legacy contracts.

The *credit spread* compensates the holder for the additional credit risk associated with the instrument. In most financial markets, derivative products to hedge the risk that the risk-free rate will change are separate from derivative products to hedge the risk that the credit spread will change. Constituents wanted the derivative accounting literature to permit these two components of the entire interest rate to be hedgeable separately to mirror the way most entities approached these risks.

ASC 815 generally allows for these two risks to be hedged separately. The change in the risk-free component is considered part of the *benchmark or contractually specified interest rate risk* subcomponent of *market price risk*, and the change in the credit spread is considered part of the *credit risk* subcomponent of *market price risk*.

See chapters 5 and 6 for additional discussion on hedging benchmark and contractually specified interest rates in fair value and cash flow hedges, respectively.

4.6.5 Hedging nonfinancial risk components

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- i. If the hedged transaction is the forecasted purchase or sale of a nonfinancial asset, the designated risk being hedged is any of the following:
 1. The risk of changes in the functional-currency-equivalent cash flows attributable to changes in the related foreign currency exchange rates
 2. The risk of changes in the cash flows relating to all changes in the purchase price or sales price of the asset reflecting its actual location if a physical asset (regardless of whether that price and the related cash flows are stated in the entity's functional currency or a foreign currency), not the risk of changes in the cash flows relating to the purchase or sale of a similar asset in a different location.
 3. The risk of variability in cash flows attributable to changes in a **contractually specified component**. (See additional criteria in paragraphs 815-20-25-22A through 25-22B for designating the variability in cash flows attributable to changes in a contractually specified component as the hedged risk.)

Hedged Item Criteria Applicable to Fair Value Hedges Only

815-20-25-12

An asset or a liability is eligible for designation as a hedged item in a fair value hedge if all of the following additional criteria are met:

- e. If the hedged item is a nonfinancial asset or liability (other than a recognized loan servicing right or a nonfinancial firm commitment with financial components), the designated risk being hedged is the risk of changes in the fair value of the entire hedged asset or liability (reflecting its actual location if a physical asset). That is, the price risk of a similar asset in a different location or of a major ingredient shall not be the hedged risk. Thus, in hedging the exposure to changes in the fair value of gasoline, an entity may not designate the risk of changes in the price of crude oil as the risk being hedged for purposes of determining effectiveness of the fair value hedge of gasoline.

If the hedged transaction is the forecasted purchase or sale of a nonfinancial asset, an entity is allowed under ASC 815 to designate the risk of variability in cash flows attributable to changes in a contractually specified component as the hedged risk. The Board provided this accommodation for cash flow hedging relationships because it believes that designating the variability in cash flows attributable to changes in a contractually specified component as the hedged risk is objective and relatively straightforward to apply.

The Master Glossary of the Codification defines a contractually specified component as “an index or price explicitly referenced in an agreement to purchase or sell a nonfinancial asset other than an index or price calculated or measured solely by reference to an entity’s own operations.” An example would be the NYMEX price of natural gas at the Henry Hub in Louisiana specified in a contract for the sale of natural gas at another location based on the NYMEX price, plus or minus a basis differential. (See section 6.4.2 for further discussion of nonfinancial component hedging.)

However, ASC 815 does not allow for hedging components in a fair value hedge related to nonfinancial assets or liabilities given the FASB’s concern that it would be difficult to demonstrate that the change in the price of a component that is not contractually specified has a direct and measurable effect on the total price of the nonfinancial asset.

To illustrate, in hedging the price exposure for gasoline inventory, an entity cannot designate the risk of changes in fair value of the crude oil component of gasoline as the risk being hedged. However, crude oil instruments may still be used to hedge the fair value of gasoline inventory to the extent that changes in the fair value of the crude oil instrument are effective in hedging the changes in the entire fair value of the hedged gasoline. Because crude oil prices do not correlate precisely with gasoline prices, some degree of mismatch will result and will be reflected in income.

ASC 815-20-55-46 and 55-47 addresses another matter regarding hedges of nonfinancial items. This guidance discusses commodity contracts (for which the NPNS scope exception has not been applied) that have both fixed and floating elements, such as a contract to purchase a commodity in the future at the prevailing market index price at that future date (a floating element) plus or minus a fixed basis differential (reflecting price adjustment factors such as timing, quality and location) set at the inception of the contract (a fixed element). See section 6.4.2.1 for additional discussion on the requirements related to the NPNS scope exception in order to hedge contractually specified components in the forecasted purchase or sale of nonfinancial assets.

An example is a January contract to buy 1 million barrels of a specific type of crude oil in July at the 1 July West Texas Intermediate (WTI) index price plus a fixed margin of \$1.25 per barrel above that price. The contract is primarily a floating price contract but includes a fixed element anticipating an adjustment for a higher grade of crude than WTI, as well as a passage-of-time element and a factor for delivery at a location other than the central pricing hub (collectively, the basis differential).

This type of contract meets the definition of a derivative, in that the basis differential itself is an underlying to the contract, and changes in that underlying will affect the fair value of the contract as a whole. This type of “mixed attribute” contract (i.e., part floating, part fixed) is unlikely to be able to function as the sole hedging instrument in a cash flow hedge of the anticipated purchase or sale of the commodity (from a source different from the contract) because that forecasted transaction is one whose variability in cash flows is based on changes in *both* the basis differential and the base commodity price, and this type of derivative contract would essentially be hedging only a portion of the variability in cash flows. However, this mixed attribute contract could be effective if combined with another derivative whose underlying is the base commodity price.

How we see it

Contracts to buy or sell nonfinancial items may themselves meet the definition of a derivative if the nonfinancial item is readily convertible to cash, such as with many commodities. If they are derivatives, they may be able to be designated as hedging instruments of another exposure, or even as hedges of the transaction that will consummate the derivative in a physical delivery (an “all-in-one” cash flow hedge, discussed in section 6.2.1). But it is also possible that such contracts will be eligible for the normal purchases and normal sales exception, as discussed in section 2.5.2. If they are eligible and documented as normal purchases or normal sales contracts, any contractually specified component in the contract may be designated as the hedged risk in a cash flow hedging relationship as discussed further in section 6.4.2.1. In some cases, the normal purchases or normal sales contracts would also be considered firm commitments, eligible to be the hedged item in a fair value hedge.⁸⁶ In these cases, an entity would be seeking to expose itself to fluctuations in future commodity prices rather than remain subject to the fixed price in the normal purchase or sales contract.

4.6.6

Forecasted transaction is 'probable' in a cash flow hedge (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- b. The occurrence of the forecasted transaction is **probable**.

Timing and Probability of the Hedged Forecasted Transaction

815-20-25-16

- c. Uncertainty of timing within a range. For forecasted transactions whose timing involves some uncertainty within a range, that range could be documented as the originally specified time period if the hedged forecasted transaction is described with sufficient specificity so that when a transaction occurs, it is clear whether that transaction is or is not the hedged transaction. As long as it remains probable that a forecasted transaction will occur by the end of the originally specified time period, cash flow hedge accounting for that hedging relationship would continue. See paragraph 815-30-40-4 for related guidance and Example 5 (see paragraph 815-20-55-100), which illustrates the application of this paragraph.
- e. The term *probable* requires a significantly greater likelihood of occurrence than the phrase *more likely than not*.
- f. The cash flow hedging model does not require that it be probable that any variability in the hedged transaction will actually occur—that is, in a cash flow hedge, the variability in future cash flows must be a possibility, but not necessarily a probability. However, the hedging derivative must be highly effective at achieving offsetting cash flows whenever that variability in future interest does occur.

⁸⁶ See ASC 815-20-25-7 through 25-9.

One requirement specific to cash flow hedging is that the forecasted transaction be probable of occurring. The assessment of the probability that a forecasted transaction will take place should not be based solely on management's intent because intent is not verifiable. The transaction's probability of occurrence should be supported by observable facts and circumstances. Consideration should be given to the following factors in assessing the probability that a transaction will occur:

- ▶ The frequency of similar past transactions
- ▶ The financial and operational ability of the entity to carry out the transaction
- ▶ Substantial commitments of resources to a particular activity (i.e., a manufacturing facility that can be used in the short run only to process a particular type of commodity)
- ▶ The extent of loss or disruption of operations that could result if the transaction does not occur
- ▶ The likelihood that transactions with substantially different characteristics might be used to achieve the same business purpose (e.g., an entity that intends to raise cash may have several ways of doing so, ranging from a short-term bank loan to a common stock offering)

In addition to the considerations listed above, both the length of time until a forecasted transaction is projected to occur and the quantity of the forecasted transaction are considerations in determining probability. Usually, the longer the period of time until the occurrence of the forecasted transaction, the less likely the forecasted transaction will actually occur. Similarly, the larger the amount of the forecasted transaction, the less likely it is to actually occur. For example, a transaction forecasted to occur in three years is generally less likely to occur than a transaction forecasted to occur in one year. Also, regardless of historical sales, a forecasted transaction to sell 1 million items in a quarter is less likely to occur than a forecasted transaction to sell 100,000 items in a quarter. All of the above considerations should be evaluated when assessing the probability of a forecasted transaction.

ASC 815 adopts the ASC 450, *Contingencies*, definition of "probable." For a forecasted transaction to be probable of occurrence, it must be "likely to occur." In addition, ASC 815 explicitly states that the term "probable" requires a significantly greater likelihood of occurrence than the phrase "more likely than not."

If at any time the likelihood of occurrence of a hedged forecasted transaction ceases to be probable, hedge accounting under ASC 815 will cease on a prospective basis and all future changes in the fair value of the derivative will be recognized directly in earnings. Any amounts reported in AOCI prior to the change in the likelihood of occurrence of the forecasted transaction will remain in AOCI until such time as the forecasted transaction impacts earnings or until the forecasted transaction becomes probable not to occur.



Reference rate reform considerations

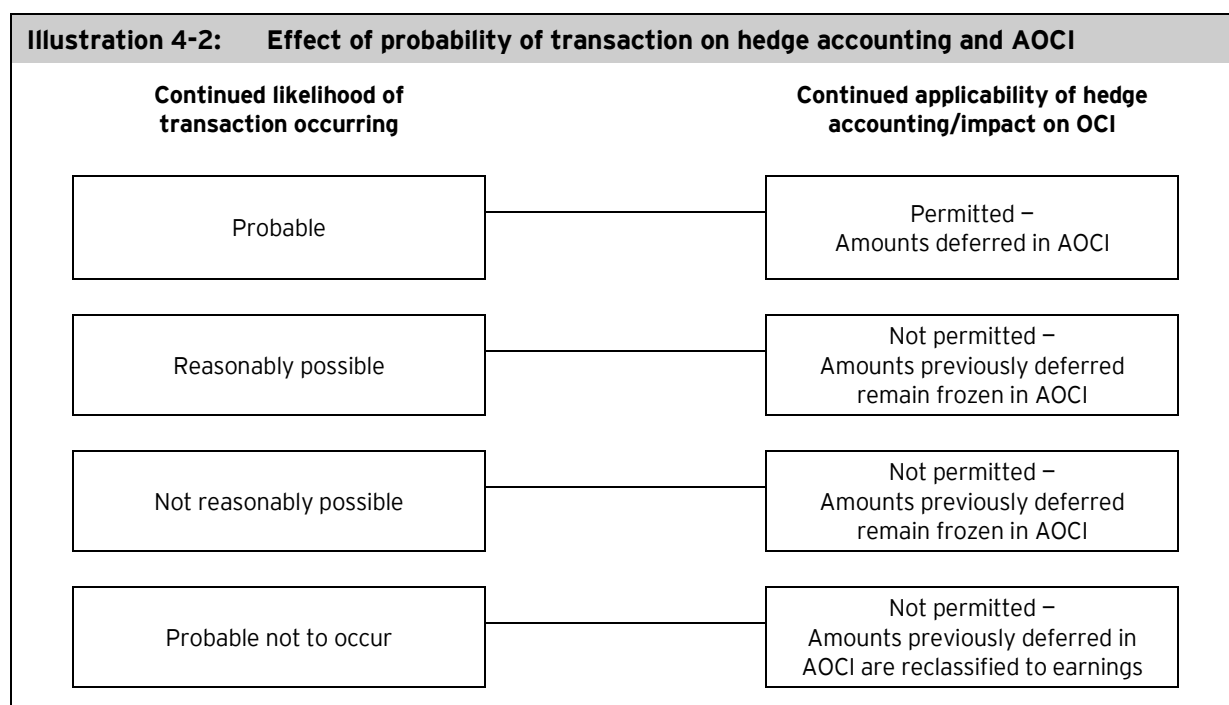
ASC 848 provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: For cash flow hedges in which the designated hedged risk is LIBOR or another rate that is expected to be discontinued as a result of reference rate reform, this guidance allows an entity to assert that it remains probable that the hedged forecasted transaction will occur regardless of whether this reference rate is modified or expected to be modified.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [**A closer look at the FASB accounting relief related to reference rate reform.**](#)

The FASB was concerned that requiring a gain or loss in AOCI to be reported in earnings when a forecasted transaction is no longer probable but still possible would provide an entity with the opportunity to manage earnings by changing its estimate of probability. If at any time the likelihood of occurrence of the forecasted transaction changes to “probable not to occur,” all amounts related to the hedging relationship previously recorded in AOCI will be reclassified into earnings. It should be noted that if an entity determines that the likelihood of occurrence of the forecasted transaction has changed to “probable not to occur,” ASC 815 does not address where to present the amounts reclassified from AOCI that relate to the missed forecasted transaction.



ASC 815-20-25-16(b) indicates that in determining whether an option or warrant designated as a hedge of the forecasted acquisition of a marketable debt security may qualify for cash flow hedge accounting, the probability of the forecasted transaction being consummated must be evaluated without consideration of whether the option or warrant designated as the hedging instrument has an intrinsic value other than zero at its expiration.

That is, an entity must be able to establish at the inception of the hedging relationship that the acquisition of the marketable debt security is probable, regardless of whether the option or warrant is in the money. In supporting this transaction as probable, the entity would have to consider all the factors discussed above. While this guidance addressed a question relating to the acquisition of a marketable debt security, it can apply to a forecasted transaction involving any type of item. If an option is used as the hedging instrument, the probability of the forecasted transaction occurring should not be influenced by whether the purchased option is in the money.

In addition, questions were raised about what happens to the derivative gain or loss that has been previously recorded in AOCI if it is probable that the hedged forecasted transaction will not occur within the originally specified time period, but it is probable that the forecasted transaction will occur at a later date. The guidance states that the derivative gain or loss must continue to be reported in AOCI unless it is probable that the forecasted transaction will not occur by the end of the originally specified time period or within two months from the original specified time period.⁸⁷

⁸⁷ See ASC 815-20-25-16(c), ASC 815-30-40-4 through 40-6, and ASC 815-30-55-100 through 55-105 (concept also discussed in chapter 6).

For example, an entity enters into a cash flow hedge for the forecasted sale of the first 1,000 widgets from 1 January to 30 June. At 30 June, the entity has sold 950 widgets during the period. The derivative gain or loss remaining in AOCI on the 50 widgets to be sold should remain in AOCI if it is possible the 50 widgets will be sold within two months (i.e., by 31 August). If it is probable that the widgets will not be sold within the two-month period, any amounts in AOCI should be reclassified into earnings on 30 June or at such time as it is determined that the forecasted transaction is probable of not occurring within the additional two-month period.

In rare circumstances, the existence of extenuating circumstances that are related to the nature of the transaction and are outside the control or influence of the reporting entity (e.g., labor strike, unique item produced such as an airplane or train engine) may cause the forecasted transaction to be probable of occurring on a date that is beyond the additional two-month period of time indicated above. In such cases, the derivative gain or loss should continue to be reported in AOCI until the forecasted transaction affects earnings.

Derivative gains and losses that are reclassified from AOCI to earnings, because the entity concluded that it was probable that a forecasted transaction would not occur, cannot later be reclassified out of earnings and back into AOCI due to a reassessment of probabilities.

How we see it

Questions were also raised about how to evaluate the two-month requirement in the event of construction delays in long-term construction projects when interim payments to subcontractors are the hedged item in a cash flow hedge. In the example in ASC 815-20-55-101 through 55-104, a general contractor enters into a long-term contract to build a power plant to be completed within five years. As part of the construction project, the general contractor expects to subcontract a portion of the construction to a foreign company with a functional currency different from its own. Because the subcontractor will be paid in its functional currency, the general contractor will have a foreign currency exposure that it desires to hedge.

At the start of the project, the general contractor forecasts that the subcontract work will be completed and paid for at the end of year two. Therefore, to hedge the foreign currency exposure related to the forecasted transaction (that is, the risk being hedged is foreign exchange rate changes through the date of the subcontractor payment), the general contractor enters into a two-year foreign currency forward contract with a notional amount equal to the expected amount of the transaction.

However, because of circumstances that may or may not be within its control, the general contractor knows that the timing of a subcontractor's work may be delayed during a long-term project by a period of more than two months even though it is probable that the overall project will remain on schedule. To address this risk, based on the guidance in ASC 815-20-25-16(c), the general contractor could document that the hedged forecasted transaction is the foreign-currency-denominated payment to the foreign subcontractor to be paid within the five-year contract period of the overall project. ASC 815-20-25-16(c) states that "for forecasted transactions whose timing involves some uncertainty within a range, that range could be documented as the originally specified time period if the hedged forecasted transaction is described with sufficient specificity so that when a transaction occurs, it is clear whether that transaction is or is not the hedged transaction."

In this case, any shifts in timing could have an immediate (and ongoing) effect on hedge effectiveness because the cash flows on the foreign currency forward contract will no longer match up with the cash flows of the forecasted transaction as they would have when originally designated. However, as long as it remains probable that the forecasted transaction will occur by the end of the originally projected five-year period of the overall project and the forward contract remains highly effective at offsetting the variability in the forecasted foreign currency cash flows (based on the entity's revised estimate of when these cash flows will occur), cash flow hedge accounting for that hedging relationship could continue.

While we believe that the guidance on the additional two-month “grace period” over which the forecasted transaction can occur deals solely with when amounts previously recorded in AOCI must be reclassified into earnings (as explicitly noted in ASC 815-30-55-98 and ASC 815-30-55-130), ASC 815-20-55-102 could be read to imply that in this illustrative example hedge accounting could continue as long as the forecasted transaction occurs within the projected five-year period of the overall project or an additional two-month period. As a result, there may be diversity in practice regarding when a cash flow hedging relationship related to a long-term construction contract (documented as described above) would need to be discontinued.

This question is likely more relevant when an entity chooses to exclude forward points from the assessment of hedge effectiveness. This is because when forward points are included in the assessment of hedge effectiveness, a significant timing difference between the maturity of the hedging instrument and the revised timing of the forecasted transaction will often result in the hedging relationship no longer being highly effective.

If, subsequent to the expiration of the forward, the probable date of the hedged transaction changes again (but is still within the originally documented range), the additional delay of the hedged transaction only affects the timing of the reclassification of the frozen balance in AOCI to earnings. In this case, the guidance is clear that the additional two-month period must be considered when determining whether amounts in AOCI are to be reclassified to earnings prior to when the forecasted transaction occurs.

4.6.7

Hedging portions of items

A derivative can be documented as hedging a portion (i.e., a period of time) or proportion (i.e., a percentage) of a nonfinancial hedged item. For example, an entity seeking to hedge its exposure to changing gasoline prices can hedge 50% of its gasoline on hand or a specific volume of expected gasoline sales in the month of June.

An entity may designate either a proportion of the total of a hedged financial asset or liability or a portion of the life of a hedged financial asset or liability, including one or more selected contractual cash flows. For example, an entity could designate either 50% of the notional (i.e., a proportion) of its 10-year debt or the first five years of cash flows (i.e., a portion) as the hedged item in a hedging relationship.

How we see it

Historically, there have been questions regarding the ability to hedge a specified dollar amount in a fair value hedging relationship, as opposed to a percentage of the entire asset or liability. For example, assume Company ABC issued \$1 billion of “non-prepayable” 10-year fixed-rate debt (while the debt does not contain any contractual prepayment provisions, Company ABC is not precluded from repurchasing or retiring the debt in a market transaction whereby it pays fair value to the holders of the debt). Assume also that Company ABC has entered into a 10-year receive-fixed, pay-variable interest rate swap to hedge \$250 million of the \$1 billion debt issuance and would like to document the hedged item as hedging the last \$250 million outstanding of its \$1 billion debt issuance. In addition, the documentation would note specifically that any repurchase or retirement of these bonds will first be applied to unhedged portions (i.e., the \$750 million that is not being hedged).

Although the guidance in ASC 815-20-25-12(b)(2)(i) refers to the hedged item of a specific portion of an asset or a liability in a fair value hedge as being a percentage of the entire asset or liability (or portfolio), we do not believe ASC 815 precludes Company ABC from defining the hedge item in terms of a stated dollar amount as noted above. That is, we believe Company ABC could document the hedged item as either (1) 25% of the specified fixed-rate debt outstanding or (2) the last \$250 million outstanding of the specified fixed-rate debt being hedged such that any repurchase or retirement of the \$1 billion in outstanding debt will first be applied to unhedged portions (i.e., the \$750 million that is not being hedged).

However, it is important for entities to understand the consequences of identifying the hedged item as a percentage of an asset or a liability versus a specified dollar amount, particularly as it relates to partial dedesignation upon any subsequent retirements (for example, if Company ABC in the example above subsequently retired \$500 million of its outstanding debt). If Company ABC had documented that it was hedging 25% of its \$1 billion outstanding debt, we believe Company ABC would be required to dedesignate half (or \$125 million) of the corresponding hedge to maintain the hedged percentage specified.

If instead Company ABC had documented that it was hedging the last \$250 million of the outstanding debt and specified how pay downs would be applied (as discussed in (2) above), we do not believe partial dedesignation of the hedging relationship would be required. Because Company ABC continues to be exposed to changes in the fair value of \$250 million in fixed-rate debt due to fluctuations in the benchmark interest rate (i.e., the principal amount on the remaining debt of \$500 million exceeds the notional amount on the swap) and because the retirement of a portion of the debt was specifically contemplated in the hedge documentation, we do not believe the original hedging relationship would be affected upon retirement of a portion of the debt.

Accordingly, it is important that an entity's up-front documentation be clear as to the designation of the hedged item, including how retirements will be handled, to ensure that upon a retirement the entity cannot "cherry pick" the portion of its debt (hedged versus unhedged) that will be subject to extinguishment accounting.

If an entity is hedging a portfolio of financial assets or one or more beneficial interests secured by a portfolio of financial instruments under the portfolio layer method (or a portfolio of prepayable financial assets or one or more beneficial interests secured by a portfolio under the last-of-layer method prior to the adoption of ASU 2022-01), it may designate a specified amount(s) (i.e., a layer or layers) as the hedged item(s). See sections 4.6.9.1.1, 5.3.4 and 5.3.4A for additional discussion.

4.6.8 Partial-term fair value hedges

The FASB permits the identification of a selected portion (rather than a proportion) of an asset or a liability as the hedged item designated in fair value hedging relationship (e.g., the first three years of interest rate payments on a five-year fixed-rate debt instrument).

ASC 815-25-35-13B indicates that an entity may calculate the change in the fair value of the hedged item in a partial-term hedge of interest rate risk using an assumed term that begins when the first hedged cash flow begins to accrue and ends at the end of the designated hedge period.⁸⁸ The FASB believes that this accommodation is consistent with an entity's risk management activities since many entities use fair value hedging as a strategy for managing cash flows (i.e., managing the fixed to floating cash flow profile of their financial assets and liabilities). (See further discussion of this topic in section 5.3.1.)

4.6.9 Portfolio hedging

ASC 815 permits a portfolio of similar assets or a portfolio of similar liabilities (or a specific portion thereof), or a group of individual forecasted transactions to be hedged. If similar assets, similar liabilities, firm commitments or forecasted transactions are aggregated and hedged as a portfolio, the individual items that make up the portfolio must share the risk exposure for which they are designated as being hedged.

⁸⁸ Prior to the adoption of ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, the guidance indicated that the assumed term of the hedged item coincided with the date that the last hedged cash flow is due and payable.

4.6.9.1

Fair value portfolio hedges**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Hedging-General***Recognition**Hedged Item Criteria Applicable to Fair Value Hedges Only***815-20-25-12**

An asset or a liability is eligible for designation as a hedged item in a fair value hedge if all of the following additional criteria are met:

- b. The hedged item is a single asset or liability (or a specific portion thereof) or is a portfolio of similar assets or a portfolio of similar liabilities (or a specific portion thereof), in which circumstance:
 1. If similar assets or similar liabilities are aggregated and hedged as a portfolio, the individual assets or individual liabilities shall share the risk exposure for which they are designated as being hedged. The change in fair value attributable to the hedged risk for each individual item in a hedged portfolio shall be expected to respond in a generally proportionate manner to the overall change in fair value of the aggregate portfolio attributable to the hedged risk. See the discussion beginning in paragraph 815-20-55-14 for related implementation guidance. An entity may use different stratification criteria for the purposes of impairment testing and for the purposes of grouping similar assets to be designated as a hedged portfolio in a fair value hedge.

*Implementation Guidance and Illustrations**Determining Whether Risk Exposure Is Shared Within a Portfolio***815-20-55-14**

This implementation guidance discusses the application of the guidance in paragraph 815-20-25-12(b)(1) that the individual assets or individual liabilities within a portfolio hedged in a fair value hedge shall share the risk exposure for which they are designated as being hedged. If the change in fair value of a hedged portfolio attributable to the hedged risk was 10 percent during a reporting period, the change in the fair values attributable to the hedged risk for each item constituting the portfolio should be expected to be within a fairly narrow range, such as 9 percent to 11 percent. In contrast, an expectation that the change in fair value attributable to the hedged risk for individual items in the portfolio would range from 7 percent to 13 percent would be inconsistent with the requirement in that paragraph.

815-20-55-15

In aggregating loans in a portfolio to be hedged, an entity may choose to consider some of the following characteristics, as appropriate:

- a. Loan type
- b. Loan size
- c. Nature and location of collateral
- d. Interest rate type (fixed or variable)
- e. Coupon interest rate or the benchmark rate component of the contractual coupon cash flows (if fixed)
- f. Scheduled maturity or the assumed maturity if the hedged item is measured in accordance with paragraph 815-25-35-13B
- g. Prepayment history of the loans (if seasoned)
- h. Expected prepayment performance in varying interest rate scenarios.

For a fair value hedge, the change in fair value attributable to the hedged risk for each individual item in the hedged portfolio must be expected to respond in a generally proportionate manner to the overall change in fair value of the aggregate portfolio attributable to the hedged risk (sometimes referred to as the “homogeneity test”).

It can be difficult for a grouping of assets or liabilities in a fair value portfolio hedge to meet this requirement unless the assets or liabilities being grouped are very similar.⁸⁹ For example, the use of an S&P 500 equity futures contract to hedge a portfolio of the actual stocks that comprise the S&P 500 would *not* meet the guidelines for a portfolio hedge because of the lack of homogeneity of each stock in the S&P 500.

ASC 815 includes an example in 815-20-55-14 that provides the limits of acceptable variation of changes in value. It indicates that if the change in the fair value of a hedged portfolio attributable to the hedged risk were 10%, then the change in the fair values attributable to the hedged risk for *each* item in the portfolio should be within a relatively narrow range, such as 9% to 11%. It extends the example by indicating that a range of 7% to 13% would be inconsistent with this provision.

However, the guidance avoids providing precise numerical bright-lines by not addressing the acceptability of an 8% to 12% range. In our view, an 8% to 12% range represents the widest acceptable range when performing the homogeneity test for a fair value portfolio hedge because we believe the FASB wanted to prevent entities from applying fair value hedge accounting when a derivative would not be highly effective in hedging changes in the fair value of each individual item within a portfolio, even if it were highly effective on an aggregate portfolio basis.

How we see it

This requirement made fair value portfolio hedging so restrictive that many entities historically did not attempt it. Because ASC 815 prohibits “macro” hedges, the guidance for portfolio hedging essentially requires a one-for-one matching of a portion of the derivative with each individual item in the portfolio. This can be thought of as apportioning a “sliver” of the derivative to each individual item in the portfolio and determining whether each sliver is highly effective at hedging each individual item.

This approach can become more difficult to manage when an entity faces a dynamic portfolio where changes to the items that make up the portfolio result in the need to dedesignate and redesignate the hedging relationship.

Fair value portfolio hedges of interest rate risk will continue to be challenging if an entity elects to use the full contractual coupon cash flows to determine the change in fair value of the hedged items of the portfolio. However, electing to measure the change in the fair value of the hedged item using the benchmark rate component of the contractual coupon cash flows (see discussion in section 5.3), coupled with applying the guidance on partial-term fair value hedges of interest rate risk (discussed above), may significantly reduce the challenges associated with fair value portfolio hedges of interest rate risk, including meeting the requirements of the homogeneity test. This is because the guidance allows entities to determine whether a group of fixed-rate financial instruments meets the requirements in ASC 815-20-25-12(b)(1) by considering the assumed maturity of the instruments in the portfolio (i.e., the term of the cash flows designated as being hedged) rather than their contractual maturity.

⁸⁹ ASC 815 emphasizes that this requirement is more restrictive than similar grouping requirements in other authoritative literature. ASC 815 specifically states that the groupings used by servicers of financial assets, who under ASC 860 aggregate servicing rights based on any predominant risk characteristic, may not necessarily comply with this requirement. However, as stated in ASC 860-50-35-13, an entity is not required to use the same stratification criteria for the impairment test for servicing assets under ASC 860 as are used for portfolio hedging under ASC 815.

For example, if an entity chose to hedge only the first four years of interest coupons in a portfolio of fixed-rate loans with various scheduled maturity dates that exceeded four years, the assumed maturity of all the items in the portfolio would be aligned. In this case, the benchmark cash flows being hedged would also be aligned since they would equate to the benchmark rate associated with the assumed maturity of the items in the portfolio (e.g., the four-year SOFR OIS rate at hedge inception). (This concept is discussed further in section 5.3.1.)

Further, it should be noted that when hedging a portfolio of items, the entity must generally allocate the hedge accounting basis adjustments to each item in the portfolio.⁹⁰ This becomes important when assessing impairment of a hedged item or determining gains and losses as a result of sales of hedged items. In addition, because the carrying value of that item has been adjusted to an amount that may differ from the cash proceeds to be received upon the sale or maturity of that item, the gain or loss upon disposition or maturity of that item is impacted.

The guidance in ASC 815-20-55-173 through 55-178 illustrates how an entity may attempt to hedge the change in fair value of a portfolio of homogeneous residential fixed-rate mortgages with an amortizing notional interest rate swap. The example notes that an entity attempting such a hedge would assign a probability weighting to each possible future change in value of the hedged portfolio. Depending on where market interest rate levels are and the expected prepayment rates for the types of loans in the hedged portfolio, the entity may reach a conclusion that the change in fair value of the swap will be highly effective *for the next three months* at offsetting the change in the value of the portfolio of loans, inclusive of the prepayment option.

This entity also would apply ASC 815-20-25-118, which permits an entity to consider the possible changes in the fair value of the derivative and the hedged item over a shorter period than the remaining life of the derivative in formulating its expectation that the hedging relationship will be highly effective. At the end of each three-month period, the old hedging relationship is dedesignated and a new one designated, perhaps with the same interest rate swap, but with a smaller portion of the swap designated as a hedging instrument since the size of the portfolio being hedged has decreased due to prepayments.

We believe the example in ASC 815-20-55-173 through 55-178 illustrates one approach as to how a fair value portfolio hedge might be constructed if the portfolio layer (formerly last-of-layer) method (discussed below) is not used.

How we see it

Entities may prefer to use the portfolio layer (formerly last-of-layer) method to hedge a portfolio of residential fixed-rate mortgages instead of the approach described in ASC 815-20-55-173 through 55-178 as this method reduces the complexity in accounting for fair value hedges of interest rate risk in pools of prepayable financial assets. See sections 4.6.9.1.1, 5.3.4, and 5.3.4A for additional discussion.

⁹⁰ For portfolios designated under the portfolio layer method, the basis adjustment is required to be maintained on a closed portfolio basis (i.e., it does not adjust the carrying value of the individual assets). Under the last-of-layer method (prior to the adoption of ASU 2022-01) allocation of the basis adjustment to the specific assets in the portfolio is not required unless allocation is needed to meet the disclosure requirements in other topics as noted in 815-10-50-5B. However, as discussed in sections 5.3.4.3 and 5.3.4A.3, the basis adjustment associated with a upon discontinuation (or partially discontinuation) of a portfolio layer method the hedging relationship (or last-of-layer hedging relationships prior to the adoption of ASU 2022-01), the basis adjustment would need to be allocated to certain assets in the closed portfolio upon discontinuation (or partial discontinuation) of the hedging relationship.

4.6.9.1.1 **Portfolio layer (formerly last-of-layer) hedges and other considerations (updated September 2023)**

Separate from the portfolio hedging guidance discussed above, ASC 815 provides an approach (the portfolio layer method) for hedging financial assets in a closed portfolio or beneficial interests secured by financial instruments.⁹¹ This method alleviates much of the complexity associated with applying fair value hedge accounting to a portfolio of financial instruments by combining the partial-term hedge concept and the ability to measure the hedged item using benchmark cash flows to simplify the determination of whether the individual assets in the portfolio share the risk exposure for which they are designated as being hedged.

This method also allows entities to essentially “ignore” prepayment risk (if applicable) when measuring the change in fair value of the hedged item or items, as long as the designated hedged item(s) (i.e., the hedged layer or layers in aggregate) is expected to be outstanding for the designated hedge period(s). See discussion in section 5.3.4A.

4.6.9.2 **Cash flow portfolio hedges (updated September 2023)**

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- a. The forecasted transaction is specifically identified as either of the following:
 2. A group of individual transactions that share the same risk exposure for which they are designated as being hedged. A forecasted purchase and a forecasted sale shall not both be included in the same group of individual transactions that constitute the hedged transaction.

The rules for aggregating forecasted transactions in a cash flow hedge differ from the rules for aggregating assets and liabilities in fair value hedges in that a homogeneity test is not specifically required.

Under ASC 815, a single derivative of appropriate size could be designated as hedging a given amount of aggregated forecasted transactions, such as the following:

- ▶ Forecasted sales of a particular product to numerous customers within a specified time period, such as a month, quarter or year
- ▶ Forecasted purchases of a particular product from the same or different vendors at different dates within a specified time period
- ▶ Forecasted interest payments on several variable-rate debt instruments within a specified time period

However, the transactions in each group must share the risk exposure for which they are being hedged. For example, the interest payments on a group of variable-rate debt instruments must vary with the same index to qualify for hedging with a single derivative. In addition, a forecasted purchase and a forecasted

⁹¹ Prior to the adoption of ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, entities were limited to hedging portfolios of prepayable financial assets or beneficial interests secured by prepayable financial instruments under the last-of-layer method.

sale cannot both be included in the same group of individual transactions, nor could forecasted interest inflows and interest outflows. Even if such groupings are based on the same underlying index, they have opposite exposures, and it would be impossible to hedge both with the same derivative.

How we see it

The SEC staff has addressed documentation issues related to a cash flow hedge of a group of individual transactions that are designated as part of a single hedging relationship. As with other elements of hedge accounting, the SEC staff does not believe there is a specific manner in which the similarity of the risk exposure of the hedged items must be demonstrated. However, the documentation must be sufficiently clear that the group of hedged items shares the same risk exposure for which they are being hedged. In instances where the transactions have different characteristics (e.g., in a cash flow hedge of total price risk for a group of forecasted sales of commodities that have different delivery locations), the SEC staff stated that a registrant might need to perform additional analyses to support its assertion that the individual transactions share the same risk exposure. In addition, to the extent there are changes in the nature or composition of the group of transactions, the registrant might be required to update its analysis periodically throughout the life of the cash flow hedging relationship.



Reference rate reform considerations

ASC 848 provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: For cash flow portfolio hedges in which a forecasted transaction in the hedged group references LIBOR or another rate that is expected to be discontinued as a result of reference rate reform, this guidance allows an entity to disregard the requirement in ASC 815-20-25-15(a)(2) that the individual transactions in the group share the same risk exposure for which they are designated as being hedged. However, the prohibition in ASC 815-20-25-15(a)(2) that a forecasted purchase (including debt issuance) and a forecasted sale cannot both be included in the same group of individual transactions being hedged continues to apply.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [***A closer look at the FASB accounting relief related to reference rate reform.***](#)

One advantage of cash flow portfolio hedges over fair value portfolio hedges relates to the necessity of *replacing* the items in the portfolio. In a fair value portfolio hedge, existing assets or liabilities are the hedged items. But in a cash flow portfolio hedge, forecasted cash flows relating to existing or forecasted assets and liabilities are the hedged items. ASC 815 does not require that the variable cash flows originate from a specific unchanging or closed portfolio of assets and liabilities.⁹²

⁹² Refer to chapter 5 for additional discussion on the concept of a “closed portfolio” as it relates to fair value hedges under the portfolio layer method.

For example, an entity might designate a cash flow hedge of the contractually specified variable interest receipts on a group of then-existing floating-rate loans that experience prepayments and/or scheduled repayments of principal. The original hedging relationship remains intact even if the composition of the loans whose interest payments are the hedged forecasted transactions is changed by replacing the principal amount of the prepaid loans with similar floating-rate loans. The essential condition for keeping the original cash flow portfolio hedge intact is being able to conclude that, if prepayments occur, it is probable that the entity will have a sufficient principal amount of similar floating-rate loans outstanding for the term of the hedge (providing exposure to the same contractually specified interest-rate-based variable cash receipts) to add to the group of loans whose interest payments are the hedged transactions.

The benefit of this flexibility is dependent on the hedge designation language. The example in ASC 815-20-55-88 through 55-99 illustrates the importance of careful wording in describing the hedged forecasted transaction. In the example, Company A and Company B both hold LIBOR-indexed floating-rate loans for which interest payments are due at the end of each calendar quarter, and the LIBOR-based interest rate resets at the end of each quarter for the interest payment that is due at the end of the following quarter. Each company will have at least \$100 million of these types of loans outstanding throughout the next three years. However, the composition of those loans will likely change to some degree due to prepayments, loan sales and potential defaults. Each company enters an appropriate interest rate swap to pay a floating LIBOR-indexed rate and receive a fixed rate on \$100 million notional amount. This derivative is a cash flow hedge of the loan assets. However:

- ▶ Company A designates the swap as hedging the risk of changes in the first LIBOR-based interest payments received during the four-week period that begins one week before each quarterly due date for the next three years on \$100 million principal due to changes in the contractually specified interest rate. That is, the hedged forecasted transactions are interest payments on \$100 million principal of its *then-existing* LIBOR-indexed floating-rate loans.
- ▶ Company B designates the swap as hedging the risk of changes in LIBOR-based quarterly interest payments received for the next three years on a *specified group* of individual LIBOR-indexed floating-rate loans aggregating \$100 million principal due to changes in the contractually specified interest rate.

When some of the loans are prepaid, Company B will have a problem, because, at inception, it designated as the hedged forecasted transactions variable interest receipts on a specified group of LIBOR-indexed floating-rate loans. Once one of the loans within the group experiences a prepayment (or has been sold, or experiences a change in its expected cash flows due to credit difficulties), the remaining hedged interest payments to Company B specifically related to that loan are now no longer probable of occurring.

As a result, Company B must discontinue the hedging relationships with respect to the hedged forecasted transactions that are now no longer probable of occurring. Subsequent to the discontinuation of the hedging relationships for interest payments related to the individual loans removed from the group, Company B will have to reclassify into earnings the net gain or loss in AOCI related to those hedging relationships because it is now probable (i.e., certain) that those forecasted transactions will not occur. Company B will also have to disclose these amounts and the reason for the reclassification. Finally, ASC 815 warns that “a pattern of determining that hedged forecasted transactions probably will not occur would call into question both an entity’s ability to accurately predict forecasted transactions and the propriety of using hedge accounting in the future for similar forecasted transactions.”

Had the hedged forecasted transactions been designated in a manner similar to that described for Company A, the consequences of a loan’s prepayment, its sale or an unexpected change in expected cash flows due to credit difficulties would not be the same. The hedged forecasted transactions for Company A in the above scenario are described with sufficient specificity so that when a transaction occurs, it is clear whether that transaction is or is not the hedged transaction. However, because Company A did not designate the hedging relationship as hedging cash flows from a specific group of

assets, “substitutions” in the assets providing those cash flows do not impact its assessment of the probability of future cash flows, provided Company A determines it is probable that it will continue to receive interest payments on at least \$100 million principal of its then-existing LIBOR-indexed floating-rate loans. Company A used the “first-payments-received” technique to identify the hedged forecasted transactions, which is a common approach used by entities to identify the hedged forecasted transactions when hedging risk associated with a group of items or transactions.

How we see it

The transition from LIBOR to other reference rates has led many financial institutions to revisit their existing strategies for hedging portfolios of variable rate loans. This has resulted in questions about the application of the shared risk exposure guidance in ASC 815-20-25-15(a)(2), including the level of analysis required for an entity to conclude that variable rate loans referencing different tenors of SOFR (e.g., overnight SOFR versus Term SOFR) are deemed to share the same risk exposure and, therefore, can be included in a single hedged portfolio. As part of its existing project on hedge accounting improvements, the FASB is considering potential improvements to clarify the application of the shared risk exposure guidance, which would address existing uncertainty and diversity in practice. Interested parties should monitor developments in this area.

4.6.10 Firm commitments that contain a foreign-currency-denominated fixed price

Cash flow exposures also exist in forecasted foreign-currency-denominated transactions because the amount of functional currency cash flows will vary. However, the FASB concluded that in a situation where an entity has entered into a firm commitment that contains a foreign-currency-denominated fixed price, the entity has both a fair value exposure for the fixed price and a cash flow exposure for the variability in the foreign currency. Therefore, in situations where an entity has a firm commitment that contains a foreign-currency-denominated fixed price, the entity can choose to designate the hedge as either a fair value hedge or a cash flow hedge.

For example, an entity contracts to buy a piece of machinery at a specified date and price denominated in a foreign currency. Since the terms of the purchase are fixed and contractually committed, the contract represents a firm commitment. However, the US dollar cost is variable because the exchange rate is not fixed. Since this contract would qualify as a firm commitment to purchase machinery, the entity could designate the hedge as a fair value hedge. Alternatively, since the functional currency (i.e., US dollar) cash flow is variable, the entity could designate the hedge of the foreign currency exposure as a cash flow hedge.

Foreign currency cash flow hedges are discussed in chapter 7.

4.6.11 Other exclusions

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Items Specifically Ineligible for Designation as a Hedged Item or Transaction

815-20-25-43

Besides those hedged items and transactions that fail to meet the specified eligibility criteria, none of the following shall be designated as a hedged item or transaction in the respective hedges:

- b. With respect to both fair value hedges and cash flow hedges:
 1. An investment accounted for by the equity method in accordance with the requirements of Subtopic 323-10 or in accordance with the requirements of Topic 321

2. A **noncontrolling interest** in one or more consolidated subsidiaries
 3. Transactions with stockholders as stockholders, such as either of the following:
 - i. Projected purchases of treasury stock
 - ii. Payments of dividends.
 4. Intra-entity transactions (except for foreign-currency-denominated forecasted intra-entity transactions) between entities included in consolidated financial statements
 5. The price of stock expected to be issued pursuant to a stock option plan for which recognized compensation expense is not based on changes in stock prices after the date of grant.
- c. With respect to fair value hedges only:
1. If the entire asset or liability is an instrument with variable cash flows, an implicit fixed-to-variable swap (or similar instrument) perceived to be embedded in a host contract with fixed cash flows
 2. For a held-to-maturity debt security, the risk of changes in its fair value attributable to interest rate risk
 3. An asset or liability that is remeasured with the changes in fair value attributable to the hedged risk reported currently in earnings
 4. An equity investment in a consolidated subsidiary
 5. A firm commitment either to enter into a business combination or to acquire or dispose of a subsidiary, a noncontrolling interest, or an equity method investee
 6. An equity instrument issued by the entity and classified in stockholders' equity in the statement of financial position
 7. A component of an embedded derivative in a **hybrid instrument**—for example, embedded options in a hybrid instrument that are required to be considered a single forward contract under paragraph 815-10-25-10 cannot be designated as items hedged individually in a fair value hedge in which the hedging instrument is a separate, unrelated freestanding option.
- d. With respect to cash flow hedges only:
2. If variable cash flows of the forecasted transaction relate to a debt security that is classified as held-to-maturity under Topic 320, the risk of changes in its cash flows attributable to interest rate risk

ASC 815 prohibits designating an investment accounted for by the equity method as a hedged item to avoid conflicts with existing accounting requirements for that item. Providing fair value hedge accounting for an equity method investment conflicts with the notion underlying ASC 323. ASC 323 requires an investor in common stock to apply the equity method of accounting when the investor has the ability to exercise significant influence over the operating and financial policies of the investee.

Under the equity method of accounting, the investor records its share of the investee's earnings or losses from its investment. It does not account for changes in the price of the common stock, which would become part of the basis of an equity method investment if fair value hedge accounting were permitted. Changes in earnings of an equity method investee presumably would affect the fair value of its common stock. Applying fair value hedge accounting to an equity method investment thus could result in some amount of "double counting" of the investor's share of the investee's earnings. The FASB believed that result was inappropriate.

In addition, the FASB was concerned that it would be difficult to develop a method of implementing fair value hedge accounting for equity method investments and that the results of any method would be difficult to understand. For similar reasons, ASC 815 prohibits fair value hedge accounting for a firm commitment to acquire or dispose of an investment accounted for by the equity method.

ASC 815 also prohibits designating as a hedged item any investment accounted for in accordance with ASC 321. ASC 321 requires entities to measure in-scope equity instruments at fair value and recognize any changes in fair value in net income, which conflicts with the requirement in ASC 815 that the hedged item is not related to an asset or a liability that is or will be remeasured with changes in fair value attributable to the hedged risk reported currently in earnings. As discussed further in section 7.6.1.2, this prohibition also applies to investments accounted for using the measurement alternative provided in ASC 321.

Further, the FASB specifically prohibits designation of (1) a noncontrolling interest in one or more consolidated subsidiaries and (2) an equity investment in a consolidated subsidiary as the hedged item in a fair value hedge. Additionally, a firm commitment to buy or sell one of the assets listed above does not qualify as a hedged item in a fair value hedge, nor does a forecasted transaction to buy or sell one of these assets qualify as a hedged transaction in a cash flow hedge. Similarly, a firm commitment or a forecasted transaction to enter into a business combination does not qualify as a hedged item in a fair value hedge or a cash flow hedge, respectively.

How we see it

While an entity is not allowed to hedge an expected business combination, a transaction dependent on a business combination such as an anticipated debt issuance by the acquirer to fund the business combination (as opposed to debt to be issued by the target entity) can potentially qualify for cash flow hedge accounting. However, the entity would have to meet all of the hedge accounting criteria, including the ability to support the assertion that the issuance of debt is probable. Because of the uncertainty involved in executing a business combination (e.g., obtaining regulatory and other approvals), it may be difficult for an entity to assert that a debt issuance (or another transaction that is dependent solely on a business combination) is probable.

In addition, an entity cannot bifurcate a risk and hedge it unless a specific contractual term in an instrument captures that risk, such as an embedded option in a financial instrument. Embedded derivatives cannot be “invented” when there are no such contractual terms. For example, an entity cannot hedge an instrument with variable cash flows by assuming that it has an embedded fixed-to-variable swap and that it is only hedging the remaining fixed host instrument absent the embedded swap. When an embedded derivative as embodied by a specific contractual term is not required to be bifurcated, another derivative can separately hedge that contractual term, but it cannot hedge the host as if the contractual term were not part of the host instrument. The FASB added this provision to ensure that entities did not attempt to use fair value hedges when a cash flow hedge is more appropriate.

ASC 815 also specifically prohibits an equity instrument classified by an entity in its stockholders' equity in the statement of financial position from being designated as a hedged item. That prohibition is consistent with the requirements that (1) a hedged item be a recognized asset or liability and (2) the hedged item presents an exposure to changes in fair value that could affect reported earnings.

In addition, interest rate risk associated with a held-to-maturity debt security under ASC 320 is not permitted to be hedged because an entity presumably is indifferent to and never affected by such risk because of its commitment to hold such debt securities until their maturity.

4.7 Preexisting hedging relationships under ASC 815

When a reporting entity is required to consolidate or deconsolidate an entity in accordance with ASC 810-10, it must discontinue a preexisting hedging relationship (between the reporting entity and the newly consolidated entity or relating to assets no longer consolidated) that qualified as an accounting hedge under ASC 815 in its financial statements. Questions sometimes arise about what adjustments, if any, should be made in the reporting entity's financial statements with respect to the previous hedge accounting.

This issue originally was addressed by Statement 133 Implementation Issue No. E22. Note that Issue E22 is not included in the Codification because it related specifically to the initial adoption of FIN 46(R). The FASB elected not to include this transition guidance in the Codification.

The guidance in Issue E22 applied to the adjustments made to the previous hedge accounting for a preexisting hedging relationship that was discontinued because of consolidation or deconsolidation of another entity due to the initial application of FIN 46 or FIN 46(R).

Although this guidance was intended to apply only to the "initial application" of FIN 46 or FIN 46(R), we believe that subsequent consolidation or deconsolidation required pursuant to the Variable Interest Model (even after the initial adoption of FIN 46 and FIN 46(R) and subsequent ASUs) should not result in the immediate recognition of previously deferred derivative gains and losses if a surrogate (i.e., substitute) hedged item can be identified.

4.8 Hedge effectiveness

One challenging aspect of ASC 815 is determining when an economic relationship qualifies for hedge accounting. The basic premise for fair value and cash flow hedges is that a derivative must be expected to be "highly effective" in achieving offsetting changes in fair value or cash flows attributable to the risk being hedged. In other words, the changes in the hedging instrument must offset the changes in what is being hedged.

In a fair value hedge, changes in the fair value of the derivative must be highly effective in offsetting changes in the fair value of the hedged item attributable to the hedged risk. In a cash flow hedge, the hedging relationship must be highly effective in achieving offsetting cash flows attributable to the hedged risk during the term of the hedge.

4.8.1 What is 'highly effective'?

The FASB has never provided specific guidance on how much of a mismatch is permitted before a hedging relationship can no longer be deemed highly effective. The FASB intended the term highly effective to be the same as the notion of "high correlation" originally used in Statement 80 (which was ultimately superseded by Statement 133, and later codified in ASC 815).

Statement 80 did not specify what constitutes high correlation. However, in the mid-1990s, the SEC addressed the concept of high correlation. It was noted that a registrant had an accounting policy that permitted hedge accounting for futures contracts as long as the cumulative "correlation ratio" ranged from 60% to 167%. That meant that hedge accounting under Statement 80 was permitted as long as the cumulative gains and losses from the futures contracts were between 60% and 167% of the offsetting cumulative losses and gains from the hedged items (that is, a dollar-offset ratio range of 60% to 167%). The SEC staff objected to such a wide range and the registrant ultimately revised its accounting policy so as to require a correlation ratio between the derivative and the hedged item exceeding 80%, with a cumulative dollar-offset ratio that could range from 80% to 125%. The result from this SEC review led to the generally accepted standard range of 80% to 125% being adopted by the major accounting firms and generally accepted by preparers.

In the Basis for Conclusions of Statement 133, the Board commented that it intended the notion of highly effective to be essentially the same as the notion of high correlation used for Statement 80, a view that seemed to acknowledge the unofficial but "generally accepted" notion of a dollar-offset ratio of 0.80 or better that pacified SEC reviewers in the past.

During the deliberations for ASU 2017-12, the FASB considered changing the threshold for an economic relationship to qualify for hedge accounting from highly effective to reasonably effective. As part of these discussions, the Board also considered numerically defining what would constitute a reasonably effective threshold. However, the Board ultimately decided to retain the highly effective threshold. As part of this decision, the Board once again decided not to specify the exact range of dollar offset it would view as acceptable under ASC 815 but noted that practice has interpreted it to be in a range of 80% to 125%.

How we see it

Entities may want to employ customized designations of the hedged risk when establishing how effectiveness will be assessed, depending on the characteristics of the hedging instrument. For example, a collar might be used by an entity that is purchasing a commodity to limit its exposure to rising prices to \$30 per unit by giving up the right to enjoy any price decreases below \$20 per unit. The entity knows that it will effectively pay no more than \$30 per unit and no less than \$20 per unit. The entity therefore would not want to define its risk as “the risk that the commodity price will change” during the period leading up to the anticipated purchase. Rather, the entity’s formal documentation should specifically say that the hedged risk is the “risk that the price will exceed \$30 per unit or fall below \$20 per unit.” This increased specificity is exactly matched with the derivative product being utilized. The collar will not be effective for changes in the commodity price *between* \$20 and \$30, so the hedged risk designation should not imply it is.

Such an approach becomes especially important the more customized the hedging instrument is. For example, there are types of options that have been designed to provide less protection than their more traditional counterparts and are, accordingly, less expensive as well. Certain types of *average rate options* contain a fixed strike price or rate but reference a monthly, quarterly or yearly average of the underlying price or rate relative to the strike, rather than referencing the spot price or rate at the expiration date. This feature tends to make the option less likely to be in the money due to its lookback feature that averages “highs” with “lows.” The designation of the hedged risk needs to take the average rate option behavior into effect.⁹³

4.8.1.1

Over what period does the hedge have to be highly effective?

For fair value and cash flow hedges, ASC 815-20-25-75 indicates that to qualify for hedge accounting, the derivative must be highly effective at both the inception of the hedge and on an ongoing basis throughout the life of the hedge. In making this assessment, an entity must establish that a hedging relationship is expected to be highly effective in achieving offsetting changes in fair value or cash flows considering any possible changes in the hedged exposure. An assessment of effectiveness is required whenever financial statements or earnings are reported, but at least every three months.

Thus, even private companies must assess effectiveness at least quarterly, although the guidance provides additional timing relief for certain private companies and not-for-profit entities to perform their initial and quarterly effectiveness assessments as discussed in section 4.4.5. The establishment that the hedge was effective for the most recent quarter enables an entity to apply hedge accounting for that quarter and establishes the presumption that the entity can continue to apply hedge accounting for the next quarter.

⁹³ A more exotic type of average rate option does not “fix” its strike rate or strike price until its expiration date. The strike price is calculable by a formula throughout its life that is influenced by the actual behavior of the underlying during the option’s life. We do not believe that these types of average rate options can be designated in hedging relationships. It would be impossible at the inception of the hedge to define the hedged risk because the strike price beyond which the option provides protection is not yet fixed.

How we see it

ASC 815-20-25-118 points out that for fair value hedges, it is permissible to base the expectation of a highly effective hedge on a shorter period than the life of the derivative. For example, if an entity wants to hedge a financial instrument with a five-year term with a derivative with a five-year life, but intends only to keep the fair value hedge in place for six months, the entity needs to contemplate the offsetting effect of the derivative only for the first six months. Another application of this guidance might involve a situation whereby an entity is attempting to hedge a financial instrument with an embedded prepayment option (such as a callable bond) but uses an interest rate swap without a mirror embedded cancellation feature. If the callable bond has a 10-year life and the call feature is not executable until year 8, the entity may be able to fair value hedge the callable bond for one to two years with a regular interest rate swap before the influence of the call feature on the fair value of the entire bond causes the hedge to no longer be “highly effective.”

In this example, the entity would have to specify, in documenting its risk management strategy, that it will assess the effectiveness of the fair value hedge every three months but will only consider possible changes in the value of the hedging derivative and the hedged item over the first two years in deciding whether it has an expectation that the hedging relationship will continue to be highly effective at achieving offsetting changes in fair value.

Alternatively, an entity could choose to hedge this callable bond with a seven-year swap in a partial-term fair value hedge. Under this approach, the assumed maturity of the bond is seven years and the prepayment feature could be ignored when assessing hedge effectiveness since the financial instrument cannot be prepaid before its assumed maturity. See section 5.3.1 for further discussion on partial-term fair value hedges.

ASC 815 also requires that similar hedges be assessed for effectiveness in a similar manner⁹⁴ and that variations be justified based on the facts and circumstances.

For example, ABC Company has significant sales in Latin America and hedges the foreign currency exposure of those sales. ABC generally assesses effectiveness based upon changes in forward rates. However, ABC believes it should use changes in the spot rate in Venezuela because the economy is highly inflationary, while the other Latin American currencies in which sales are denominated are not. In this case, ABC could justify not assessing effectiveness based on the forward rate for its Venezuelan bolivar forward contracts, even though ASC 815 requires similar hedges to be assessed for effectiveness in a similar manner. (See the discussion in section 4.8.3.5 on excluding certain components of a derivative and assessing effectiveness based on the forward or spot rates.)

4.8.2

The shortcut method for interest rate swaps (updated September 2023)

In an effort to relieve entities from having to periodically assess whether their interest rate swaps are highly effective, ASC 815 outlines certain criteria for interest rate swaps that, if met, permit an assumption that either a fair value or cash flow hedge⁹⁵ of a recognized interest-bearing asset or liability⁹⁶ is perfectly effective. These criteria are referred to as the “shortcut method” because when these criteria are met, the accounting is significantly simplified, and the hedge is considered perfectly effective.

⁹⁴ ASC 815-20-25-81.

⁹⁵ Note that cash flow hedges of variable-rate debt rarely qualify for the use of the shortcut method. Because variable-rate debt can typically be prepaid at an amount other than its fair value, the criteria in ASC 815-20-25-104(e) (discussed below) is generally violated.

⁹⁶ Some constituents were concerned that even though an interest rate swap might be entered on the trade date of the hedged interest-bearing asset or liability, the hedged interest-bearing asset or liability may not be “recognized” until the settlement date a few days later. Those constituents feared that once the hedged item was recognized, the fair value of the interest rate swap would no longer be zero (a requirement discussed in the following paragraphs). The FASB addressed this concern by clarifying that the shortcut method is permitted for these situations (see ASC 815-20-25-102) as long as the trade date of the asset or liability differs from its settlement date due to generally established conventions in the marketplace in which the transaction is executed (typically deemed to be the shortest available period for that type of security as discussed in ASC 815-10-15-17(c)).

The ability to use the shortcut method is limited solely to benchmark or contractually specified interest rate hedging relationships involving a recognized interest-bearing asset or liability (or a firm commitment arising on the trade pricing date to purchase or issue an interest-bearing asset or liability) and an interest rate swap that meet the specific conditions discussed below.



Reference rate reform considerations

ASC 848 provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: For fair value and cash flow hedges affected by reference rate reform, this guidance allows an entity to disregard certain criteria that would normally be required to qualify for the shortcut method.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [A closer look at the FASB accounting relief related to reference rate reform.](#)

4.8.2.1 Applicability to interest rate swaps⁹⁷ (updated September 2023)

ASC 815-20-25-102 through 25-111 and ASC 815-20-55-71 provide specific guidelines as to when an interest rate swap can be assumed to be a perfectly effective hedging instrument. The shortcut method for interest rate swaps requires all of the formal hedge documentation at inception as discussed earlier in section 4.4, but importantly, it requires no ongoing assessment of hedge effectiveness if all criteria for its use are met at the inception of the hedge. The criteria (for both fair value and cash flow hedges) are as follows:

- ▶ The notional amount of the swap matches the principal amount of the interest-bearing asset or liability.
- ▶ The fair value of the swap at the inception of the hedging relationship is zero, with one exception. The shortcut method is permitted for interest rate swaps that have a non-zero fair value only if the swap was entered into at the relationship's inception, the transaction price of the swap was zero and the difference between transaction price and fair value is attributable solely to differing prices within the bid-ask spread in the principal market (or most advantageous market) for the instrument, as applicable. The guidance in the preceding sentence applies only to transactions considered "at market" (that is, the transaction price is zero exclusive of commissions and other transaction costs, as discussed in ASC 820-10-35-9B). The exception noted above was provided by the FASB in paragraph 815-20-25-104(b) in response to questions regarding the application of the exit price notion in ASC 820 to the valuation of derivative instruments and the acknowledgment that transaction price and fair value may not be equal at initial recognition.
- ▶ The formula for computing net settlements under the swap is the same for each net settlement (i.e., the fixed rate is the same throughout the term, and the variable rate is based on the same index and includes the same constant adjustment or no adjustment).⁹⁸
- ▶ The interest-bearing asset or liability is not prepayable before its scheduled maturity or the assumed maturity date⁹⁹ (see further discussion in section 4.8.2.3).

⁹⁷ See section 4.8.2.3 for application of the shortcut method to a compound derivative composed of an interest rate swap and a mirror-image call or put option as discussed in 815-20-25-104(e).

⁹⁸ ASC 815-20-25-104 indicates that the shortcut method is available for a swap that includes a "stub period" floating rate if the swap trades at an interim date (i.e., between the swap reset dates), as long as that rate is one that corresponds to the length of the stub period, and all the other criteria for the application of the shortcut method are met.

⁹⁹ As discussed in section 5.3.1.3, entities may apply the shortcut method to partial-term fair value hedges of interest rate risk, as long as all other criteria to qualify for the shortcut method are satisfied.

- ▶ Any other terms in the interest-bearing instrument or swap are typical of those instruments and do not invalidate the assumption of perfect effectiveness.

How we see it

We believe the last criterion effectively prohibits entities from using the shortcut method for hedges of zero coupon bonds, convertible bonds, mortgage-based instruments with uncertain principal amortization patterns and debt with embedded interest rate reset options (“you-pick-’em” debt, also known as “chooser rate option” debt). In addition, this criterion would also prohibit swaps that include embedded financings, even if constructed to have a fair value of zero at inception, from being eligible for the shortcut method.

For a fair value hedge, the swap must also meet all of the following additional conditions:

- ▶ The expiration date of the swap must match the maturity date (or assumed maturity) of the interest-bearing asset or liability.
- ▶ There can be no floor or ceiling on the variable interest rate of the swap.
- ▶ The interval between repricings of the variable leg of the swap must be frequent enough to justify an assumption that the variable payment or receipt is at a market rate (generally three to six months or less).
- ▶ The index on which the variable leg of the interest rate swap is based matches the benchmark interest rate designated as the interest rate risk being hedged for that hedging relationship.

For a cash flow hedge, all of the following additional conditions are required:

- ▶ All interest receipts or payments on the variable-rate asset or liability during the term of the swap must be designated as hedged, and no interest payments beyond the term of the swap are designated as hedged.
- ▶ There can be no floor or cap on the variable interest rate of the swap unless the variable-rate asset or liability has a floor or cap. In that case, the swap must have a floor or cap on the variable interest rate that is *comparable* to the floor or cap on the variable-rate asset or liability. ASC 815-20-25-106c(2) states that “[f]or this purpose, comparable does not necessarily mean equal” and provides the following example to illustrate this point: if a swap’s variable rate is LIBOR and an asset’s variable rate is LIBOR plus 2%, a 10% cap on the swap would be comparable to a 12% cap on the asset. While not required to be equal, the illustrative example appears to indicate that a strict algebraic relationship should exist between the strike prices of the floor or cap on the variable-rate asset or liability and the floor or cap mirrored in the swap.
- ▶ The repricing dates must match those of the variable-rate asset or liability.¹⁰⁰
- ▶ The index on which the variable leg of the interest rate swap is based matches the contractually specified interest rate designated as the interest rate being hedged for that hedging relationship.

As it relates to cash flow hedges, the shortcut method can only be applied to hedges of existing variable-rate assets and liabilities. It is not available for hedges of forecasted transactions that result from the maturity and reissuance of short-term fixed-rate assets and liabilities, such as commercial paper programs.

¹⁰⁰ ASC 815-20-25-106 also requires the repricing calculation to be performed the same way for the swap as for the variable-rate asset or liability (i.e., either both prospectively or both retrospectively).

In ASC 815-20-25-102, the FASB clarifies that “the verb ‘match’ is used in the specified conditions in the list to mean be ‘exactly the same’ or ‘correspond exactly.’” An entity cannot use the shortcut method if it merely comes *close* to matching some of these criteria. In addition, the shortcut method cannot be analogized to any other types of derivative instruments.

In addition to not having to periodically evaluate effectiveness, another key benefit of the shortcut method is its accounting simplicity. As always, the derivative is recorded at fair value as either an asset or a liability. But with the shortcut method, an entity can assume that the hedged item’s change in fair value is exactly equal to the derivative’s change in fair value. In a fair value hedge, the hedged item is adjusted by exactly the same amount as the derivative, with no impact on earnings. In a cash flow hedge, OCI is adjusted by exactly the same amount as the derivative, with no impact on earnings. With respect to interest rate swaps, each periodic cash settlement is accrued in the income statement as an adjustment to interest income or expense.

The shortcut method does not require the fixed rate on a hedged item to match the fixed rate on a swap or the variable rate of the hedged item to match the variable leg of the swap. This is because the fixed and variable legs on a swap can be changed without affecting the net settlement if both are changed by the same amount. For example, a swap with a payment based on SOFR OIS and a receipt with a fixed rate of 5% has the same net settlements and fair value as a swap with a payment based on SOFR OIS plus 1% and a receipt based on a fixed rate of 6%.

In addition, the shortcut method does not require comparable credit risk between the derivative and the hedged item, even though actually achieving a perfect offset would require that the same discount rate be used to determine the fair value of the derivative and the fair value of the hedged item. This provision is another advantage of the shortcut method.

How we see it

Mismatches between the change in fair value of the hedged item and hedging instrument that would almost always be recognized if long haul accounting were used are not recognized when the shortcut method is applied to fair value hedging relationships. These mismatches primarily result from the following:

- If the floating leg of the swap resets periodically (i.e., monthly, quarterly or semiannually) rather than continuously, changes in the present value of this “fixed” payment create a mismatch.
- ASC 820 requires a valuation adjustment for credit risk when measuring the fair value of the swap (assuming the swap is not fully collateralized), while under ASC 815’s long-haul method, there is no adjustment for credit risk to the hedged debt as the cash flows are discounted using the benchmark interest rate (i.e., the risk that is being hedged).

While the above mismatches would ultimately net to zero over the life of the fair value hedging relationship if the long-haul method were applied, they would result in earnings volatility throughout the life of the hedging relationship. In contrast, when the required criteria have been met, the shortcut method results in reported earnings (i.e., interest expense) that match the net cash flows of the debt and the swap throughout the hedging relationship and is therefore viewed by many to better represent the economics of this very common hedging strategy of using interest rate swaps to effectively convert fixed-rate debt to variable-rate debt. This is because the accounting under the shortcut method reflects that the swap perfectly “unlocks” or hedges the benchmark component of the debt’s fixed coupon as of and from the hedge designation date, which is the intention of this hedge for most entities.

In contrast, cash flow hedges may be perfectly effective under the long-haul method when the variable-rate instrument (the hedged item) contains features that are the mirror image of the variable leg of the swap. However, as discussed further in section 4.8.3.1, when entities hedge SOFR-based instruments, any difference in the rates or methods used to calculate interest for the hedging instrument and the hedged item could affect their assessment of hedge effectiveness.

4.8.2.2 Consideration of potential default by counterparty to the hedging derivative under the shortcut method

In applying the shortcut method, an entity must consider the likelihood of the swap counterparty's compliance with the contractual terms of the hedging derivative that require the counterparty to make payments to the entity. ASC 815-20-25-103 states that implicit in the criteria for the shortcut method is the requirement that a basis exists for concluding on an ongoing basis that the hedging relationship is expected to be highly effective in achieving offsetting changes in fair values or cash flows. A long-haul method has these same requirements at hedge inception but, in contrast to the shortcut method, requires an entity to continuously evaluate and document the creditworthiness of its counterparty (and any changes thereto) every quarter.

In making these assessments, the impact of any related collateralization or financial guarantees should be considered. Deterioration in a swap counterparty's creditworthiness would have an immediate effect on the effectiveness of a fair value hedge under a long-haul method as well as on the effectiveness of a cash flow hedge being assessed under the "change-in-fair-value method" of ASC 815-30-35-10 through 35-32, as discussed in section 6.5.2.3.

The entire notional amount of the hedged item does not need to be designated in a hedging relationship under the shortcut method. The shortcut method can be applied to fair value and cash flow hedges as long as the notional amount of the interest rate swap matches the designated proportion of the hedged interest-bearing asset or liability.¹⁰¹

4.8.2.3 Prepayable instruments that qualify for the shortcut method

One of the criteria that must be satisfied to qualify for the shortcut method is that the hedged item or transaction is not prepayable before its scheduled maturity or the assumed maturity date (when the hedged item is measured in accordance with ASC 815-25-35-13B).¹⁰² Some constituents expressed concern that any interest-bearing asset or liability is subject to prepayment depending on the specific facts and circumstances, and they wondered whether the shortcut method for interest rate swaps was possible to apply. The FASB, in ASC 815-20-25-112 through 25-115 and ASC 815-20-55-74 through 55-78, provided some relief to this concern by indicating when an interest-bearing asset or liability should be considered prepayable for purposes of applying the shortcut method.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Application of Prepayable Criterion

815-20-25-112

An interest-bearing asset or liability shall be considered prepayable under the provisions of paragraph 815-20-25-104(e) if one party to the contract has the right to cause the payment of principal before the scheduled payment dates unless either of the following conditions is met:

- a. The debtor has the right to cause settlement of the entire contract before its stated maturity at an amount that is always greater than the then fair value of the contract absent that right.
- b. The creditor has the right to cause settlement of the entire contract before its stated maturity at an amount that is always less than the then fair value of the contract absent that right.

¹⁰¹ See ASC 815-20-25-105 and 25-106.

¹⁰² An entity can apply the shortcut method to a partial-term hedge of a fixed-rate financial instrument that is prepayable, as long as the instrument cannot be prepaid before its assumed maturity date (and all other criteria to qualify for the shortcut method are satisfied).

In addition, under ASC 815-20-25-114 a right to cause a contract to be prepaid at its then-fair value would not cause the interest-bearing asset or liability to be considered prepayable under the shortcut method since that right would have a fair value of zero at all times and essentially would provide only liquidity to the holder.

In addition, under ASC 815-20-25-113, any term, clause or other provision in a debt instrument that gives the debtor or creditor the right to cause prepayment of the debt contingent upon the occurrence of a specific event related to a change in the debtor's credit (e.g., the debtor's failure to make timely payment, thus making it delinquent; its failure to meet specific covenant ratios; its disposition of specific significant assets (such as a factory); a declaration of cross-default; a restructuring by the debtor) should not be considered a prepayment provision.

The following table, developed from ASC 815-20-55-74 through 55-78, illustrates typical debt instruments with prepayment options and whether the prepayment feature would prohibit the use of the shortcut method:

| Illustration 4-3: Prepayment features evaluated under the shortcut method | |
|---|--|
| Illustrative debt instrument with prepayment options | Considered "prepayable" under shortcut method criteria? |
| Instrument #1 contains a call option that permits the debt to be called by the debtor at a fixed amount (i.e., at par or at a specified premium over par) that may not equal fair value. | Yes – this instrument is considered prepayable under ASC 815 because it permits settlement at an amount that is potentially below the contract's fair value as of the date of settlement. |
| Instrument #2 contains a contingent acceleration clause that permits the creditor to accelerate the maturity of the debt if a change in the debtor's creditworthiness occurs (i.e., credit downgrade). | No – this instrument is not considered prepayable under ASC 815 because the contingent acceleration clause permits the creditor to accelerate the maturity of an outstanding note <i>only</i> on the occurrence of a specified event related to the debtor's creditworthiness. |
| Instrument #3 contains a call option that permits the debtor to repurchase the debt instrument from the creditor at an amount equal to its then-fair value. | No – this instrument is not considered prepayable under ASC 815 because the debtor can only call the debt at fair value and therefore the call option would never have a fair value other than zero. |
| Instrument #4 contains a "make-whole provision" that gives the debtor the right to pay off the debt before maturity at a significant premium over the fair value of the debt at the date of settlement. (The premium is to penalize the debtor for prepaying the debt and to compensate the investor for being forced to recognize a taxable gain on the settlement of the instrument.) | No – this instrument is not considered prepayable under ASC 815 because the debt can only be settled at an amount greater than fair value at the call date. |
| Instrument #5 has a variable rate of interest plus a fixed credit spread and contains a call option that permits the debtor to call the debt at an amount equal to par at each interest reset date. ¹⁰³ | Yes – this instrument is considered prepayable under ASC 815 because the debt is callable at a price that could be less than its fair value. This is due to the fact that the variable interest rate at the reset date is not adjusted for changes in the credit spread (credit risk) of the issuer. |

¹⁰³ For cash flow hedges where the shortcut method is not permitted because the debt is considered prepayable, a hedging relationship may still be perfectly effective if the "change-in-variable-cash-flows method" or "hypothetical-derivative method" in ASC 815-30-35-16 through 35-24 is used. See further discussion in chapter 6.

Despite all of the preceding guidance, an entity may still be able to apply the shortcut method to a fair value hedging relationship of interest rate risk involving an interest-bearing asset or liability that is prepayable due to an embedded call option (i.e., Debt Instrument #1 described above) provided that the hedging interest rate swap contains an embedded mirror-image call option.¹⁰⁴ The call option embedded in the swap is considered a mirror image of the call option embedded in the hedged item if the terms of the two call options match exactly (including matching maturities, strike price, related notional amounts, timing and frequency of payments, and dates on which the instruments may be called).

Similarly, an entity is not precluded from applying the shortcut method to a fair value hedging relationship of interest rate risk involving an interest-bearing asset or liability that is prepayable due to an embedded put option provided the hedging interest rate swap contains an embedded mirror-image put option. Also note, however, that interest rate swaps being utilized to hedging instruments like #2, #3 and #4 above should not contain embedded options related to interest rate risk.

If the hedging instrument is a compound derivative composed of an interest rate swap and mirror-image call or put option as discussed above, in order to qualify for the shortcut method, the premium for the mirror-image call or put option must be paid or received in the same manner as the premium on the call or put option embedded in the hedged item as follows:

- ▶ If the implicit premium for the call or put option embedded in the hedged item is being paid principally over the life of the hedged item (through an adjustment of the interest rate), the fair value of the hedging instrument at the inception of the hedging relationship must be zero (other than solely due to the bid-ask spread for the instrument as discussed in ASC 815-20-25-104(b)).
- ▶ If the implicit premium for the call or put option embedded in the hedged item was principally paid at inception-acquisition (through an original issue discount or premium), the fair value of the hedging instrument at the inception of the hedging relationship must be equal to the fair value of the mirror-image call or put option.

4.8.2.4

Misapplication of the shortcut method

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- b. Documentation requirement applicable to fair value hedges, cash flow hedges, and net investment hedges:
 - iv. The method that will be used to retrospectively and prospectively assess the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's **fair value** (if a fair value hedge) or hedged transaction's variability in cash flows (if a cash flow hedge) attributable to the hedged risk. There shall be a reasonable basis for how the entity plans to assess the hedging instrument's effectiveness.

¹⁰⁴ ASC 815-20-25-108 notes that any discount or premium in the carrying amount (including any related deferred issuance costs) is irrelevant in determining whether a call option meets the mirror-image requirements.

04. An entity that applies the shortcut method in paragraphs 815-20-25-102 through 25-117 may elect to document at hedge inception a quantitative method to assess hedge effectiveness and measure hedge results if the entity determines at some point during the term of the hedging relationship that the use of the shortcut method was not or no longer is appropriate. See paragraphs 815-20-25-117A through 25-117D.

Application of Whether the Shortcut Method Was Not or No Longer Is Appropriate

815-20-25-117A

In the period in which an entity determines that use of the shortcut method was not or no longer is appropriate, the entity may use a quantitative method to assess hedge effectiveness and measure hedge results without dedesignating the hedging relationship if both of the following criteria are met:

- a. The entity documented at hedge inception in accordance with paragraph 815-20-25-3(b)(2)(iv)(04) which quantitative method it would use to assess hedge effectiveness and measure hedge results if the shortcut method was not or no longer is appropriate during the life of the hedging relationship.
- b. The hedging relationship was highly effective on a prospective and retrospective basis in achieving offsetting changes in fair value or cash flows attributable to the hedged risk for the periods in which the shortcut method criteria were not met.

815-20-25-117B

If the criterion in paragraph 815-20-25-117A(a) is not met, the hedging relationship shall be considered invalid in the period in which the criteria for the shortcut method were not met and in all subsequent periods. If the criterion in paragraph 815-20-25-117A(a) is met, the hedging relationship shall be considered invalid in all periods in which the criterion in paragraph 815-20-25-117A(b) is not met.

815-20-25-117C

If an entity cannot identify the date on which the shortcut criteria ceased to be met, the entity shall perform the quantitative assessment of effectiveness documented at hedge inception for all periods since hedge inception.

815-20-25-117D

The terms of the hedged item and hedging instrument used to assess effectiveness, in accordance with paragraph 815-20-25-117A(b), shall be those existing as of the date that the shortcut criteria ceased to be met. For cash flow hedges, if the hypothetical derivative method is used as a proxy for the hedged item, the value of the hypothetical derivative shall be set to zero as of hedge inception.

ASC 815 allows entities that misapply the shortcut method to use a quantitative method to assess hedge effectiveness and measure hedge results without dedesignating the hedging relationship if the following conditions are met:

- ▶ The entity documented at hedge inception the quantitative method it would use to assess effectiveness and measure hedge results if necessary.
- ▶ Based on the results of that quantitative method, the hedging relationship was highly effective on a prospective and retrospective basis for the periods in which the shortcut method criteria were not met.

If both of these conditions are met, an entity applies the guidance on error corrections in ASC 250 to the difference, if any, between its financial results reflecting the use of the shortcut method and the financial results when the hedging relationship is assessed under the quantitative method previously documented.

If the entity documents a quantitative method at hedge inception but the hedging relationship is not highly effective based on this method, the hedging relationship would be considered invalid in all periods in which (1) the shortcut criteria were not met and (2) the quantitative assessment indicates that the hedging

relationship was not highly effective on a prospective and retrospective basis. If the entity cannot determine when the shortcut criteria were no longer met, it is required to quantitatively assess effectiveness using the previously documented methodology for all periods since hedge inception. This would also be the case if the entity determines that the hedging relationship never qualified for use of the shortcut method.

However, if an entity fails to document a quantitative method to be used if it misapplies the shortcut method, the hedging relationship would be invalid in the period in which the shortcut criteria were not met and in all subsequent periods. The entity would apply the guidance on error corrections in ASC 250 to the difference between the results recorded when applying the shortcut method and the results when not applying hedge accounting. Assessing the guidance on error corrections in this manner is akin to the approach that had been applied historically when the shortcut method was misapplied. Comparing the financial reporting results achieved under the shortcut method with those that would have been recorded had hedge accounting never been applied can result in significant errors and often lead to restatements. Therefore, it is imperative for entities that use the shortcut method to include a “fallback” quantitative method as part of their initial hedge documentations.

Documenting a fallback quantitative method will not only reduce the likelihood of restatements but, in many cases, enable entities to continue to apply hedge accounting without having to dedesignate and redesignate the hedging relationship. As a result, the ongoing assessment of hedge effectiveness would not be affected by a hedging instrument having a fair value other than zero at hedge inception, which will typically be the case if the entity dedesignated and redesignated the hedging relationship.

The ability to continue to apply hedge accounting without interruption is very helpful for entities with fair value hedges that document that the quantitative method they will use to assess effectiveness and measure hedge results if they misapply the shortcut method will be based on the benchmark rate component of the contractual coupon cash flows. In this case, not having to dedesignate and redesignate the hedging relationship means that the fixed rate on the interest rate swap used as the hedging instrument would continue to match the benchmark cash flows as of the hedge’s original inception date.

How we see it

While certain entities historically avoided using the shortcut method out of fear that they would have to restate earnings if they later determined that they inappropriately applied it, using this method may be more appealing to entities now. That’s because the FASB provided additional guidance in ASU 2017-12 on assessing an error when the shortcut method is misapplied. The Board also clarified that an entity can apply the shortcut method when hedging a debt instrument after its issuance (this is a relatively common occurrence that is referred to as a “late-term hedge”).

While ASC 815 only explicitly addresses how an entity would apply the guidance on error corrections in ASC 250 when it incorrectly applies the shortcut method, we believe that a similar approach would be appropriate when an entity incorrectly applies the critical terms match method of assessing hedge effectiveness (see section 4.8.3.1). That is, if an entity mistakenly applied the critical terms match method to a hedging relationship where the critical terms of the hedging instrument and hedged item did not match exactly, we believe the assessment of the accounting error should be based on the difference, if any, between the entity’s financial results reflecting the use of the critical terms match method and the financial results when the hedging relationship is assessed under the quantitative method that has been previously documented.

Given the potential for changes to certain critical terms in a hedging relationship (e.g., the expected timing of a forecasted transaction), most entities that apply this assessment approach currently document a quantitative method to be used if needed.

4.8.3 The 'long-haul method'

Although ASC 815 never uses the term "long-haul method," the term has come to be used in practice to describe the assessment of hedge effectiveness on an ongoing basis when a hedging relationship is not eligible to use the shortcut method.

Any hedging relationship that does not qualify for the shortcut method, even for the most minor reason, must apply the regular provisions of assessing hedge effectiveness on an ongoing basis required by ASC 815. These regular provisions are referred to collectively as the long-haul method.

Importantly, ASC 815 acknowledges that the application of the long-haul method can result in a hedge being assessed as perfectly effective. This acknowledgment occurs in several places in the literature, where the FASB notes that an exact matching of critical terms between the derivative instrument and the hedged item will result in the relationship being perfectly effective every time the long-haul method is applied and, accordingly, would justify an up-front assessment of "highly effective" (even perfectly effective) at the inception of the hedging relationship. (See ASC 815-20-25-3(b)(2)(iv)(01)(B-H).)

The reason the relationship is perfectly effective in these circumstances is because identical offsetting terms are present in the derivative and in the hedged item, and, therefore, any application of the mathematics of discounted cash flows will produce precisely offsetting amounts; that is, the change in fair value of the derivative will precisely offset the change in fair value of the hedged item because the matching offsetting cash flows in the numerator for both are being discounted by the same discount factors in the denominator for both.

4.8.3.1 'Critical terms match' (updated September 2022)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedge Effectiveness Criteria Applicable to Both Fair Value Hedges and Cash Flow Hedges

815-20-25-84

If the critical terms of the hedging instrument and of the hedged item or hedged forecasted transaction are the same, the entity could conclude that changes in fair value or cash flows attributable to the risk being hedged are expected to completely offset at inception and on an ongoing basis. For example, an entity may assume that a hedge of a forecasted purchase of a commodity with a forward contract will be perfectly effective if all of the following criteria are met:

- a. The forward contract is for purchase of the same quantity of the same commodity at the same time and location as the hedged forecasted purchase. Location differences do not need to be considered if an entity designates the variability in cash flows attributable to changes in a **contractually specified component** as the hedged risk and the requirements in paragraphs 815-20-25-22A through 25-22B are met.
- b. The fair value of the forward contract at inception is zero.
- c. Either of the following criteria is met:
 1. The change in the discount or premium on the forward contract is excluded from the assessment of effectiveness pursuant to paragraphs 815-20-25-81 through 25-83.
 2. The change in expected cash flows on the forecasted transaction is based on the forward price for the commodity.

815-20-25-84A

In a cash flow hedge of a group of forecasted transactions in accordance with paragraph 815-20-25-15(a)(2), an entity may assume that the timing in which the hedged transactions are expected to occur and the maturity date of the hedging instrument match in accordance with paragraph 815-20-25-84(a) if those forecasted transactions occur and the derivative matures within the same 31-day period or fiscal month.

815-20-25-85

If all of the criteria in paragraphs 815-20-25-84 through 25-84A are met, an entity shall still perform and document an assessment of hedge effectiveness at the inception of the hedging relationship and, as discussed beginning in paragraph 815-20-35-9, on an ongoing basis throughout the hedge period. No quantitative effectiveness assessment is required at hedge inception if the criteria in paragraphs 815-20-25-84 through 25-84A are met (see paragraph 815-20-25-3(b)(2)(iv)(01)).

The application of the long-haul method when the critical terms of the hedging derivative and the hedged item exactly match is often referred to as “the critical terms-match method.” When the critical terms of the hedging instrument and the hedged item are exactly the same, ASC 815-20-25-84 indicates that an entity can conclude that changes in fair value or cash flows attributable to the risk being hedged are expected to be completely offset by the hedging instrument at inception and on an ongoing basis (i.e., the hedging relationship is assumed to be perfectly effective).

While the FASB chose to illustrate the critical terms-match concept of perfect effectiveness in ASC 815-20-25-84 by using a commodity forward contract example, the concept is not limited to commodity forwards. It can be applied to hedges of various risks (e.g., foreign exchange risk). A similar concept is also discussed in the context of interest rate hedges (e.g., where the entity assesses hedge effectiveness under the hypothetical-derivative method in accordance with ASC 815-30-35-25 through 35-29, and all of the critical terms of the hypothetical derivative and hedging instrument are the same). As noted in section 4.2.3, ASC 815-20-25-3(b)(2)(iv)(01) provides a list of scenarios where an initial quantitative prospective assessment of hedge effectiveness is not required because the hedging relationship is assumed to be perfectly effective. Many of the examples in this publication make similar qualitative prospective assessments that support an expectation of perfect effectiveness.

How we see it

Entities need to consider how interest is determined for the SOFR-based instruments they use in their hedging relationships because any difference in the rates or methods used to calculate interest for the hedging instrument and the hedged item could affect their assessment of hedge effectiveness. For example, a difference would exist if an entity uses a SOFR OIS swap to hedge a Term SOFR loan.

Even when both the hedging instrument and hedged item reference overnight SOFR, interest may be calculated differently in these instruments (e.g., compound interest versus simple interest, interest calculated in advance versus in arrears).

When interest on the hedging instrument is calculated differently from interest on the hedged item, an entity would not be permitted to use an assessment method that assumes perfect effectiveness. For example, if an entity uses a SOFR-based swap where the payout on the floating leg of the swap is calculated using overnight SOFR compounded in arrears to hedge SOFR-based debt for which interest is determined using a simple average, the entity could not assess the effectiveness of the hedge using the critical terms match method.

While the hedging relationship could still be highly effective, the entity would need to perform an initial quantitative assessment to prove that is the case. The entity would then consider whether it could reasonably support an expectation of high effectiveness on a qualitative basis in subsequent periods or whether it would need to perform ongoing quantitative assessments of hedge effectiveness.

Although there may be an assumption of perfect effectiveness at the outset, an entity is still required to perform and document an assessment of hedge effectiveness on an ongoing basis throughout the hedge period, as stated in ASC 815-20-25-85. These subsequent assessments can be performed by verifying and documenting that the critical terms of the hedging instrument and the hedged item have not changed during the period (and that the forecasted transaction is still probable of occurring), with no quantitative methods necessary. In addition, an entity is required to continually assess whether there have been adverse developments regarding the risk of counterparty default. If there are no changes in the critical terms or adverse developments regarding counterparty default, an entity could conclude that the hedge is still perfectly effective.

Note that if subsequent assessments indicate that there has been a change in critical terms or adverse developments regarding counterparty default, the entity would switch to a quantitative approach (e.g., dollar-offset or regression) to assess hedge effectiveness as discussed in 815-20-35-12. This assumes that as part of the hedge documentation at hedge inception, the entity documented a quantitative assessment method to be performed in these circumstances.

In practice, the critical terms match approach is generally applied only to cash flow hedges, although a similar concept exists for hedges of foreign currency risk of a net investment in a foreign operation. (See chapter 7 for additional discussion of the guidance in ASC 815-35-35-5, 35-12 and 35-17A regarding perfectly effective net investment hedges.)

Entities should not assume that the critical terms of the hedging relationship will continue to exactly match. In the case of cash flow hedges of forecasted transactions, it is quite common for critical terms to exactly match at the inception of the hedging relationship, but no longer exactly match as time passes and the accuracy of the original forecast proves to be imperfect. In some cases, the forecasted transactions may no longer be probable of occurring, a situation that would require hedge accounting to cease.

ASC 815-20-25-84 also indicates that the hedging instrument must have a fair value of zero at hedge inception for the critical terms of the hedging derivative and the forecasted transaction to match. If the derivative has a fair value of zero at the inception of the hedging relationship, both the cash flows from the derivative and the hedged probable cash flows are forecasted based on the identical forward commodity curve (or forward interest rate curve or forward foreign exchange curve, in other examples). If both the derivative's cash flows and the hedged transaction's cash flows are forecasted from the same source, then changes in that source (i.e., the forward curve) will affect both in identical offsetting fashion if all other critical terms also match. In addition, the guidance in ASC 815-20-25-84A simplifies the application of the critical terms match method for groups of forecasted transactions by allowing an entity to apply the critical terms match method to a group of forecasted transactions if the forecasted transactions occur within the same 31-day period or fiscal month as the maturity of the hedging derivative, assuming all the other critical terms are identical.

For example, a US-dollar functional currency entity hedging the variability in functional currency cash flows associated with EUR1,000,000 of sales in the month of June 20X1 with a forward contract to sell EUR1,000,000 on 30 June 20X1 may assume perfect effectiveness if all the forecasted sales are expected to occur within the month of June 20X1 and all other criteria to apply the critical terms match method are satisfied.

The Board provided for this flexibility because it believes that when a single derivative is designated and is highly effective as a hedge of a group of exposures in which the settlement of individual transactions and the derivative instrument occur within the same 31-day period or fiscal month but on different days, any mismatches between the change in the fair value of the hedging instrument and the individual hedged forecasted transactions would be minimal.

How we see it

The guidance in ASC 815-20-25-84A is written in the context of hedging a group of forecasted transactions. We generally do not believe this guidance provides entities with additional flexibility (i.e., a 31-day “window”) for individual forecasted transactions to qualify to use the critical terms match method or to continue using this method if the timing of the hedged item changes so it no longer exactly matches the terms of the hedging instrument.

For example, an entity that initially assesses the effectiveness of a cash flow hedge of a single forecasted transaction using the critical terms match method (because its best estimate of the timing matches the terms of the hedging instrument) is still required to perform subsequent quantitative assessments of hedge effectiveness if the expected timing of the forecasted transaction changes (even if the expected change in timing is less than 31 days).

4.8.3.2

Subsequent qualitative hedge effectiveness assessments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- b. Documentation requirement applicable to fair value hedges, cash flow hedges, and net investment hedges:
 - iv. The method that will be used to retrospectively and prospectively assess the hedging instrument’s effectiveness in offsetting the exposure to changes in the hedged item’s **fair value** (if a fair value hedge) or hedged transaction’s variability in cash flows (if a cash flow hedge) attributable to the hedged risk. There shall be a reasonable basis for how the entity plans to assess the hedging instrument’s effectiveness.
- 03. An entity also shall document at hedge inception whether it elects to perform subsequent retrospective and prospective hedge effectiveness assessments on a qualitative basis and how it intends to carry out that qualitative assessment. See paragraphs 815-20-35-2A through 35-2F for additional guidance on qualitative assessments of effectiveness. In addition, the entity shall document which quantitative method it will use if facts and circumstances of the hedging relationship change and the entity must quantitatively assess hedge effectiveness in accordance with paragraph 815-20-35-2D. An entity must document that it will perform the same quantitative assessment method for both initial and subsequent prospective hedge effectiveness assessments. The guidance in paragraphs 815-20-55-55 through 55-56 applies if the entity wants to change its quantitative method of assessing effectiveness after the initial quantitative effectiveness assessment.

Subsequent Measurement**Effectiveness Assessments on a Qualitative Basis****815-20-35-2A**

An entity may qualitatively assess hedge effectiveness if both of the following criteria are met:

- a. An entity performs an initial quantitative test of hedge effectiveness on a prospective basis (that is, it is not assuming that the hedging relationship is perfectly effective at hedge inception as described in paragraph 815-20-25-3(b)(2)(iv)(01)(A) through (H)), and the results of that quantitative test demonstrate highly effective offset.
- b. At hedge inception, an entity can reasonably support an expectation of high effectiveness on a qualitative basis in subsequent periods.

See paragraphs 815-20-55-79G through 55-79N for implementation guidance on factors to consider when determining whether qualitative assessments of effectiveness can be performed after hedge inception.

815-20-35-2B

An entity may elect to qualitatively assess hedge effectiveness in accordance with paragraph 815-20-35-2A on a hedge-by-hedge basis. If an entity makes this qualitative assessment election, only the quantitative method specified in an entity's initial hedge documentation must comply with paragraph 815-20-25-81.

815-20-35-2C

When an entity performs qualitative assessments of hedge effectiveness, it shall verify and document whenever financial statements or earnings are reported and at least every three months that the facts and circumstances related to the hedging relationship have not changed such that it can assert qualitatively that the hedging relationship was and continues to be highly effective. While not all-inclusive, the following is a list of indicators that may, individually or in the aggregate, allow an entity to continue to assert qualitatively that the hedging relationship is highly effective:

- a. An assessment of the factors that enabled the entity to reasonably support an expectation of high effectiveness on a qualitative basis has not changed such that the entity can continue to assert qualitatively that the hedging relationship was and continues to be highly effective. This shall include an assessment of the guidance in paragraph 815-20-25-100 when applicable.
- b. There have been no adverse developments regarding the risk of counterparty default.

ASC 815 permits entities to assess ongoing hedge effectiveness qualitatively, even for hedging relationships that are not assumed to be perfectly effective, if (1) an initial quantitative prospective assessment is performed and demonstrates that the relationship is expected to be highly effective and (2) at inception, the entity can reasonably support an expectation of high effectiveness on a qualitative basis in subsequent periods. If the facts and circumstances change and the entity can no longer assert qualitatively that the hedging relationship was and continues to be highly effective, the entity is required to begin performing subsequent effectiveness assessments on a quantitative basis.

As part of its documentation at hedge inception, an entity needs to document its election to subsequently assess hedge effectiveness qualitatively. The documentation should include a description of how the entity intends to perform the qualitative assessment and the quantitative method that it will use if a qualitative assessment is no longer appropriate. To apply this method, the entity is required to document that it will perform the same quantitative assessment for both initial and subsequent prospective assessments (if needed).

The decision to subsequently assess hedge effectiveness on a qualitative basis can be made on a hedge-by-hedge basis. This provides entities with the flexibility to assess certain hedges qualitatively even when a similar hedging relationship is assessed quantitatively. However, ASC 815-20-35-2B requires that the quantitative method to be used if a qualitative assessment is no longer appropriate, as specified in the entity's initial documentation, comply with the guidance in ASC 815-20-25-81. This guidance indicates that ordinarily, an entity needs to assess similar hedges in a similar manner. Accordingly, if the facts and circumstances change such that an entity is required to begin performing subsequent assessments on a quantitative basis, the entity should use a consistent quantitative methodology for similar hedges.

4.8.3.2.1

Initial quantitative test of hedge effectiveness

As noted above, one of the criteria required to assess ongoing effectiveness qualitatively for hedging relationships that are not assumed to be perfectly effective is that the entity initially performed a prospective assessment of hedge effectiveness on a quantitative basis. Accordingly, the guidance on subsequently assessing hedge effectiveness on a qualitative basis does not apply to hedging relationships where an initial prospective assessment of hedge effectiveness was not performed quantitatively (e.g., because the critical terms match method was applied). Section 4.2.3.1 provides a complete list of situations where an initial prospective quantitative assessment of hedge effectiveness is not required to be performed.

How we see it

It is important to note that the subsequent qualitative assessment approach discussed above differs from the critical terms match method discussed in section 4.8.3.1. If the required criteria are met, the subsequent qualitative assessment approach may be applied to hedges that would not qualify for the critical terms match method because all the critical terms of the hedging instrument and the hedged item do not match exactly. As a result, these hedging relationships cannot be presumed to be perfectly effective at hedge inceptions (as is the case under the critical terms match method). Instead, entities are required to perform an initial quantitative prospective assessment at hedge inception to support that the hedge is expected to be highly effective (consistent with the requirement for any hedge that cannot be presumed to be perfectly effective at inception).

The ability to continue to subsequently assess hedge effectiveness qualitatively also is different in these two methods. As discussed in paragraphs BC209 and BC210 of the Basis for Conclusions of ASU 2017-12, the criteria for continuing to apply the critical terms match method are more stringent than the criteria for continuing to apply the subsequent qualitative method. Entities that apply the critical terms match method are required to subsequently assess hedge effectiveness on a quantitative basis if there is any change in the critical terms of the hedging relationship (regardless of how minor). In contrast, an entity that applies the subsequent qualitative assessment approach is not required to subsequently assess hedge effectiveness quantitatively, unless the facts and circumstances change to an extent that the entity can no longer assert qualitatively that the relationship is highly effective. (See section 4.8.3.2.3.)

The Board believes this difference is appropriate because under the critical terms match method no initial quantitative test was performed to qualify for hedge accounting, as the effectiveness of the hedging relationship relies solely on the matching of the critical terms of the hedging instrument and the hedged item at inception and on an ongoing basis.

4.8.3.2.2

Expectation of high effectiveness on a qualitative basis**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Hedging-General****Implementation Guidance and Illustrations****Eligibility of Hedging Relationships for Subsequent Qualitative Effectiveness Assessments****815-20-55-79G**

An entity should use judgment in determining whether it can reasonably support performing assessments of effectiveness after hedge inception on a qualitative basis. That judgment should include careful consideration of the following factors:

- a. Results of the quantitative assessment of effectiveness performed for the hedging relationship.
- b. Alignment of the critical terms of the hedging relationship. If one or more of the critical terms of the hedging instrument and the hedged item are not aligned, an entity should consider whether changes in market conditions may cause the changes in fair values or cash flows of the hedging instrument and hedged item or hedged forecasted transaction attributable to the hedged risk to diverge as a result of those differences in terms.
 1. In cases in which the underlyings of the hedged item and hedging instrument are different, an entity should consider the extent and consistency of the correlation exhibited between the changes in the underlyings of the hedged item and hedging instrument.
 - i. This may inform the entity about whether expected changes in market conditions could cause the changes in fair values or cash flows of the hedging instrument and the hedged item or hedged forecasted transaction attributable to the hedged risk to diverge. Particularly in the context of reverting to qualitative assessments of hedge effectiveness after being required to perform a quantitative assessment (as discussed in paragraph 815-20-35-2D), this may inform an entity about whether there is a reasonable expectation that the hedging relationship is expected to remain stable or whether that divergence is expected to continue or recur in the future.
 - ii. A specific event or circumstance may cause a temporary disruption to the market that results in an entity concluding that the facts and circumstances of the hedging relationship have changed such that it no longer can assert qualitatively that the hedging relationship was and continues to be highly effective. In those instances, if the results of the quantitative assessment of effectiveness do not significantly diverge from the results of the initial assessment of effectiveness, that market disruption should not prevent the entity from returning to qualitative testing in subsequent periods. If the results of the quantitative assessment of effectiveness do significantly diverge from the results of the initial assessment of effectiveness, the entity should continually monitor whether the temporary market disruption has been resolved when determining whether to return to qualitative testing in subsequent periods.

ASC 815 provides guidance on determining whether an entity can reasonably support performing assessments of hedge effectiveness on a qualitative basis after hedge inception. While acknowledging that this determination requires judgment, the guidance indicates that an entity should carefully consider the following factors:

- ▶ Results of the quantitative assessment performed at hedge inception
- ▶ Alignment of the critical terms of the hedging relationship

For example, an entity should consider whether changes in market conditions could cause the fair value or cash flows of the hedging instrument and hedged item to diverge, due to differences in their critical terms. If the underlyings of the hedging instrument and hedged item differ, an entity should consider the extent and consistency of correlation between changes in the different underlyings because this could inform the entity about how expected changes in market conditions could affect the effectiveness of the hedging relationship prospectively.

ASC 815-20-55-79I through 55-79N also provides a number of examples illustrating situations where an entity would or would not be able to reasonably support subsequently assessing hedge effectiveness on a qualitative basis. These examples show that subsequently assessing hedge effectiveness qualitatively would only be appropriate when the initial quantitative assessment indicates that the hedging relationship is not close to failing, and changes in the underlyings of the hedging instrument and the hedged item have been consistently highly correlated.

How we see it

An entity's ability to subsequently assess hedge effectiveness qualitatively does not eliminate the need for it to perform ongoing "math" related to the hedged item. For example, for fair value hedging relationships, an entity will still need to measure the change in the fair value of the hedged item attributable to the hedged risk to appropriately adjust the carrying value of the hedged item.

Because this aspect of the guidance relates to hedging relationships that are not assumed to be perfectly effective, it would be inappropriate to assume that the change in the fair value of the hedged item is equal to the change in the fair value of the hedging instrument.

4.8.3.2.3

Changes in facts and circumstances

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Subsequent Measurement

Effectiveness Assessments on a Qualitative Basis

815-20-35-2D

If an entity elects to assess hedge effectiveness on a qualitative basis and then facts and circumstances change such that the entity no longer can assert qualitatively that the hedging relationship was and continues to be highly effective in achieving offsetting changes in fair values or cash flows, the entity shall assess effectiveness of that hedging relationship on a quantitative basis in subsequent periods. In addition, an entity may perform a quantitative assessment of hedge effectiveness in any reporting period to validate whether qualitative assessments of hedge effectiveness remain appropriate. In both cases, the entity shall apply the quantitative method that it identified in its initial hedge documentation in accordance with paragraph 815-20-25-3(b)(2)(iv)(03).

815-20-35-2E

When an entity determines that facts and circumstances have changed and it no longer can assert qualitatively that the hedging relationship was and continues to be highly effective, the entity shall begin performing subsequent quantitative assessments of hedge effectiveness as of the period that the facts and circumstances changed. If there is no identifiable event that led to the change in the facts and circumstances of the hedging relationship, the entity may begin performing quantitative assessments of effectiveness in the current period.

815-20-35-2F

After performing a quantitative assessment of hedge effectiveness for one or more reporting periods as discussed in paragraphs 815-20-35-2D through 35-2E, an entity may revert to qualitative assessments of hedge effectiveness if it can reasonably support an expectation of high effectiveness on a qualitative basis for subsequent periods. See paragraphs 815-20-55-79G through 55-79N for implementation guidance on factors to consider when determining whether qualitative assessments of effectiveness can be performed after hedge inception.

At every assessment date, an entity is required to verify and document that the facts and circumstances continue to support its ability to qualitatively assert that the relationship was and is expected to continue to be highly effective. This assessment may be relatively straightforward in certain cases but require significant judgment in others. ASC 815 provides the following indicators that may, individually or in the aggregate, support an entity's assertion that a qualitative assessment continues to be appropriate:

- ▶ The factors assessed at hedge inception that enabled the entity to reasonably support an expectation of high effectiveness on a qualitative basis have not changed to an extent that the entity no longer can assert qualitatively that the hedging relationship was and continues to be highly effective. This would include, when applicable, an assessment of the guidance in ASC 815-20-25-100 regarding situations where the exposure being hedged is more limited than the hedging instrument (e.g., when the exposure being hedged is capped but the hedging instrument does not contain a similar cap).
- ▶ There have been no adverse developments regarding the risk of counterparty default.

If an entity determines that a qualitative effectiveness assessment is no longer appropriate, it should begin performing quantitative effectiveness assessments (using the method documented at hedge inception) as of the period in which the facts and circumstances changed. If there is no identifiable event that led to the change in facts and circumstances, the entity may begin performing quantitative effectiveness assessments in the current period. After performing a quantitative assessment for one or more reporting periods, the entity can revert to a qualitative effectiveness assessment if it can reasonably support an expectation of high effectiveness on a qualitative basis for subsequent periods.

The guidance provides two examples of facts and circumstances changing to an extent that an entity could no longer assert qualitatively that the hedging relationship was and continues to be highly effective.

In one example,¹⁰⁵ the entity is hedging cash flow variability stemming from changes in a contractually specified index related to the forecasted purchase of a commodity using a derivative instrument whose underlying is an index that differs from the index being hedged. Given the strong results of its initial quantitative effectiveness assessment and the historically high correlation between the two indexes, the entity determines that hedge effectiveness can be subsequently assessed on a qualitative basis.

However, because a storm occurs in a later period that affects the supply of the commodity underlying the index in the hedging derivative but not the contractually specified index related to the forecasted purchase, the entity concludes that subsequent assessment of hedge effectiveness on a qualitative basis is no longer appropriate. The entity is able to continue applying hedge accounting since the hedging relationship remains highly effective based on quantitative assessments. When the effect of this isolated weather event on the index underlying the hedging derivative passes, the entity reverts to assessing hedge effectiveness qualitatively.

In the other example,¹⁰⁶ an entity concludes that subsequent assessment of hedge effectiveness on a qualitative basis is no longer appropriate for its fair value hedge of fixed-rate debt when the counterparty to its hedging instrument experiences significant credit deterioration.

¹⁰⁵ ASC 815-20-55-79P through 55-79S.

¹⁰⁶ ASC 815-20-55-79T through 55-79V.

How we see it

In some cases, determining whether a change in facts and circumstances is significant enough to necessitate switching from a qualitative to a quantitative assessment will require significant judgment. However, we expect that this determination could, in part, depend on the methodology used by the entity to perform its initial quantitative assessment.

For example, the determination may require less judgment if the entity's initial quantitative assessment included scenario or stress testing that indicated the extent to which facts and circumstances (including market factors) could change without calling into question the effectiveness of the hedge. Such an approach may be especially helpful when a high level of correlation has existed between the hedging instrument and the hedged item under relatively stable market conditions.

4.8.3.3 'Simplified hedge accounting approach'

ASC 815-20-25-133 through 25-138 provides guidance that allows certain private companies to use a simplified hedge accounting approach for interest rate swaps used to economically convert variable-rate debt to fixed-rate debt. This approach allows private companies entering into these swaps to assume that the cash flow hedging relationship is perfectly effective when certain criteria are met. This guidance is applicable only to cash flow hedges and is further discussed and illustrated in chapter 6.

4.8.3.4 Quantitative methods to assess hedge effectiveness

ASC 815-20-25-3(b)(2)(iv) requires that at the time an entity designates a hedging relationship, it must define and document the method it will use to assess the hedge's effectiveness. This assessment of effectiveness is required both at the inception of the hedging relationship and on an ongoing basis (i.e., whenever financial statements or earnings are reported, and at least every quarter).¹⁰⁷ In addition, ASC 815-20-25-81 states that ordinarily an entity should assess effectiveness for similar hedges in a similar manner and the use of different methods for similar hedges should be justified.

Furthermore, ASC 815 requires that an entity use that defined and documented methodology consistently throughout the period of the hedge. If an entity changes the methodology during the hedge, it would be considered the termination of one hedging relationship and the beginning of a new hedge. However, this change is not considered a change in accounting principle.

While ASC 815 does not specify a particular method an entity should use to assess hedge effectiveness, it does provide conditions under which a mismatch between the change in fair value (or cash flows) of the hedging instrument and the hedged item could arise:

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedge Effectiveness Criteria Applicable to both Fair Value Hedges and Cash Flow Hedges

815-20-25-81

This Subtopic does not specify a single method for assessing whether a hedge is expected to be highly effective. The method of assessing effectiveness shall be reasonable. The appropriateness of a given method of assessing hedge effectiveness depends on the nature of the risk being hedged and the type of hedging instrument used. Ordinarily, an entity shall assess effectiveness for similar hedges in a similar manner, including whether a component of the gain or loss on a derivative instrument is excluded

¹⁰⁷ ASC 815 provides additional timing relief to certain private companies and not-for-profit entities for completing their assessment of hedge effectiveness. See discussion in section 4.4.5.

in assessing effectiveness for similar hedges. Use of different methods for similar hedges shall be justified. The mechanics of isolating the change in **time value of an option** discussed beginning in paragraph 815-20-25-98 also shall be applied consistently.

815-20-25-77

There would be a mismatch between the change in fair value or cash flows of the hedging instrument and the change in fair value or cash flows of the hedged item or hedged transaction in any of the following circumstances, among others:

- a. A difference between the basis of the hedging instrument and the hedged item or hedged transaction, to the extent that those bases do not move in tandem
- b. Differences in critical terms of the hedging instrument and hedged item or hedged transaction, such as differences in any of the following:
 1. Notional amounts
 2. Maturities
 3. Quantity
 4. Location (not applicable for hedging relationships in which the variability in cash flows attributable to changes in a **contractually specified component** is designated as the hedged risk)
 5. Delivery dates.
- c. A change in the counterparty's creditworthiness.

In addition, ASC 815-20-25-80 states that the assessment of effectiveness should be based on the objective of an entity's risk management strategy. Some entities may have more sophisticated hedging strategies, such as delta-neutral hedging strategies, rollover hedging strategies and hedging based on changes in the intrinsic value of options. When such strategies are used, the entity must clearly document its risk management objective and strategy, including how the derivative's effectiveness will be assessed.

How we see it

The SEC staff has insisted that such documentation be sufficiently specific so as to ensure consistent application. For example, the SEC staff rejected one registrant's methodology, which was documented as follows: "The hedge will be deemed highly effective providing it remains within 80%-125% of forecast." The SEC staff indicated that this documentation did not sufficiently describe the process that the entity would go through in making its periodic assessment that the hedging relationship had been and was expected to be highly effective at achieving offset. The SEC staff believes that the methodology that will be used for assessing hedge effectiveness must be documented with sufficient specificity such that a third party reviewing the formal documentation would be able to objectively reperform the assessment of hedge effectiveness.

Regardless of the method that the entity applies to assess effectiveness, ASC 815-20-25-79 requires an entity to consider hedge effectiveness in two different ways – in prospective considerations and in retrospective evaluations:

- ▶ *Prospective considerations* – Upon designation of a hedging relationship (as well as on an ongoing basis), the entity must be able to justify an **expectation** that the relationship **will be** highly effective over future periods in achieving offsetting changes in fair value or cash flows. That expectation, which is forward-looking, can be based upon regression or other statistical analysis of past changes in fair values or cash flows as well as other relevant information. The initial prospective assessment must be performed on a quantitative basis unless one of the situations described in ASC 815-20-25-3(b)(2)(iv)(01) exists.

- ▶ *Retrospective evaluations* – At least quarterly, the hedging entity must determine whether the hedging relationship **has been** highly effective in having achieved offsetting changes in fair value or cash flows through the date of periodic assessment. That assessment can be based upon regression or other statistical analysis of past changes in fair values or cash flows as well as on other relevant information.

As discussed in section 4.8.3.2, entities may elect to perform subsequent assessments of hedge effectiveness qualitatively if certain criteria are met. In this case, the subsequent qualitative assessment is deemed to capture both prospective and retrospective evaluations.

For hedges that will be assessed quantitatively, an entity must define and document the method it will use to assess the hedge's effectiveness for both prospective considerations and retrospective evaluations: either a dollar-offset approach or a regression or other statistical analysis approach.

4.8.3.4.1

The dollar-offset approach

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Subsequent Measurement

Quantitative Hedge Effectiveness Assessments after Hedge Designation

815-20-35-5

In periodically (that is, at least quarterly) assessing retrospectively the effectiveness of a fair value hedge (or a cash flow hedge) in having achieved offsetting changes in fair values (or cash flows) under a dollar-offset approach, an entity shall use either a period-by-period approach or a cumulative approach on individual fair value hedges (or cash flow hedges):

- Period-by-period approach. The period-by-period approach involves comparing the changes in the hedging instrument's fair values (or cash flows) that have occurred during the period being assessed to the changes in the hedged item's fair value (or hedged transaction's cash flows) attributable to the risk hedged that have occurred during the same period. If an entity elects to base its comparison of changes in fair value (or cash flows) on a period-by-period approach, the period cannot exceed three months. Fair value (or cash flow) patterns of the hedging instrument or the hedged item (or hedged transaction) in periods before the period being assessed are not relevant.
- Cumulative approach. The cumulative approach involves comparing the cumulative changes (to date from inception of the hedge) in the hedging instrument's fair values (or cash flows) to the cumulative changes in the hedged item's fair value (or hedged transaction's cash flows) attributable to the risk hedged.

815-20-35-6

If an entity elects at inception of a hedging relationship to base its comparison of changes in fair value (or cash flows) on a cumulative approach, then that entity must abide by the results of that methodology as long as that hedging relationship remains designated. Electing to utilize a period-by-period approach instead of a cumulative approach (or vice versa) to perform retrospective evaluations of assessing hedge effectiveness under the dollar-offset method may affect whether an entity can apply hedge accounting for the current assessment period.

The dollar-offset method for assessing hedge effectiveness compares the amount of the dollar change in fair value or cash flows of the hedging instrument with the amount of the dollar change in fair value or cash flows of the hedged item or transactions over the assessment period. This approach is easy to implement. However, hedging relationships with inherent mismatches in terms may experience problems in achieving an 80% to 125% result, particularly when the actual dollar movements in the change in fair value or cash flows of the hedging instrument and hedged item are small.

For example, in a fair value hedge assume the hedging instrument's change in fair value for the period was \$1,000 and the hedged item's change in fair value for the period was \$2,000. This would indicate that the hedging relationship was only 50% effective and an entity would not qualify for hedge accounting. This is the case even though if one were able to look at the changes in fair value in relation to the notional amount of the contract being hedged, the strategy would seem to be highly effective (i.e., assume that the fair value of the hedged item changed from \$1,000,000 to \$1,002,000). This example illustrates that when the changes in fair value or cash flows are small relative to the overall value of the hedged item, the dollar-offset method could indicate that the hedging strategy is not highly effective when over time the hedging relationship may be highly effective. This scenario is often described as the "law of small numbers" problem.

If an entity elects, at the inception of a hedging relationship, to use the dollar-offset approach to retrospectively assess the effectiveness of a fair value or a cash flow hedge, an entity may utilize either a period-by-period approach or a cumulative approach. The period-by-period approach involves comparing the changes in the hedging instrument's fair values (or cash flows) that have occurred during the period being assessed with the changes in the hedged item's fair value (or hedged transaction's cash flows) attributable to the risk hedged that have occurred during the same period. The cumulative approach involves comparing the cumulative changes (to date from inception of the hedge) in the hedging instrument's fair values (or cash flows) with the cumulative changes in the hedged item's fair value (or hedged transaction's cash flows) attributable to the risk hedged. At inception of the hedge, an entity may choose either approach in designating how effectiveness will be assessed, as indicated in its hedge documentation.

As noted above, if an entity elects at inception of a hedging relationship to base its comparison of changes in fair value (or cash flows) on a cumulative approach, then that entity must abide by the results of that methodology as long as that hedging relationship remains designated. In addition, based on the guidance in ASC 815-20-25-81, consistent methodologies should be used for similar hedges. An entity should approach this decision with care because it is possible that in any given quarter, dollar offset might be achieved under one approach but not the other.

How we see it

We believe that sound statistical applications that are disciplined, valid and unbiased are properly designed to predict highly effective dollar offsets for the derivative and the hedged item and should be able to support the application of hedge accounting, even if a highly effective dollar-offset result is not ultimately achieved for a given period. However, when the dollar offset is not achieved we believe it's prudent for the entity to challenge the soundness of its statistical method (e.g., to determine whether the poor dollar offset is truly the aberrant behavior that the statistical method acknowledges can occur (say, 5% of the time, or outside two standard deviations) or is the result of a flaw in the statistical technique and its application to the actual hedging relationship). Continued failures to achieve a highly effective dollar offset may invalidate the statistical technique and call into question its future usage to support hedge accounting.

4.8.3.4.2

Regression analysis or other statistical analysis approach

Recognizing the analytical process many entities go through to establish hedging relationships, the FASB concluded that entities could use methods other than the dollar-offset approach to assess hedge effectiveness (i.e., regression or other statistical analysis). Broadly speaking, the purpose of regression and other statistical techniques is to verify or refute a hypothesis. In the context of ASC 815, the hypothesis is that a specific hedging relationship is highly effective.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Subsequent Measurement

Quantitative Hedge Effectiveness Assessments after Hedge Designation

815-20-35-2G

Quantitative assessments can be based on regression or other statistical analysis of past changes in fair values or cash flows as well as on other relevant information.

815-20-35-3

If an entity elects at the inception of a hedging relationship to use the same regression analysis approach for both prospective considerations and retrospective evaluations of assessing effectiveness, then during the term of that hedging relationship both of the following conditions shall be met:

- a. Those regression analysis calculations shall generally incorporate the same number of data points.
- b. That entity must periodically update its regression analysis (or other statistical analysis).

815-20-35-4

Electing to use a regression or other statistical analysis approach instead of a dollar-offset approach to perform retrospective evaluations of assessing hedge effectiveness may affect whether an entity can apply hedge accounting for the current assessment period.

Implementation Guidance and Illustrations

Methodologies to Assess Effectiveness of Fair Value and Cash Flow Hedges

815-20-55-68

... if an entity assesses hedge effectiveness on a quantitative basis and elects at the inception of a hedging relationship to utilize a regression analysis approach for prospective considerations of assessing effectiveness and the dollar-offset method to perform retrospective evaluations of assessing effectiveness, then that entity must abide by the results of that methodology as long as that hedging relationship remains designated. Thus, in its retrospective evaluation, an entity might conclude that, under a dollar-offset approach, a designated hedging relationship does not qualify for hedge accounting for the period just ended, but that the hedging relationship may continue because, under a regression analysis approach, there is an expectation that the relationship will be highly effective in achieving offsetting changes in fair value or cash flows in future periods. In its retrospective evaluation, if that entity concludes that, under a dollar-offset approach, the hedging relationship has not been highly effective in having achieved offsetting changes in fair value or cash flows, hedge accounting may not be applied in the current period. Whenever a hedging relationship fails to qualify for hedge accounting in a certain assessment period, the overall change in fair value of the derivative instrument for that current period is recognized in earnings (not reported in other comprehensive income for a cash flow hedge) and the change in fair value of the hedged item would not be recognized in earnings for that period (for a fair value hedge).

815-20-55-69

... if an entity assesses hedge effectiveness on a quantitative basis and elects at the inception of a hedging relationship to utilize a regression analysis (or other statistical analysis) approach for either prospective considerations or retrospective evaluations of assessing effectiveness, then that entity shall periodically update its regression analysis (or other statistical analysis). As long as an entity reruns its regression analysis and determines that the hedging relationship is still expected to be highly effective, then it can continue to apply hedge accounting without interruption.

815-20-55-70

The application of a regression or other statistical analysis approach to assessing effectiveness is complex. Those methodologies require appropriate interpretation and understanding of the statistical inferences.

As noted in the guidance above, electing to utilize regression or another statistical analysis approach instead of a dollar-offset approach to perform the assessment of hedge effectiveness can lead to more desirable accounting results. For example, if an entity elected to utilize a regression analysis approach for prospective considerations of assessing effectiveness and the dollar-offset method to perform retrospective evaluations of assessing effectiveness as discussed in ASC 815-20-55-68, the entity runs the risk of losing hedge accounting for the current period if the dollar-offset ratio is outside the range of 80%-125% (e.g., due to the law of small numbers problem). If the entity had instead elected to use the same regression analysis approach for both prospective considerations and retrospective evaluations of assessing effectiveness, hedge accounting could have continued uninterrupted as long as the updated regression analysis indicated that the hedging relationship is still expected to be highly effective.¹⁰⁸

Because regression analysis and other statistical techniques can lead to more desirable accounting results (e.g., the continuation of hedge accounting instead of a dedesignation of the hedging relationship), it is important to understand the appropriate use of these techniques as well as their limitations. That is, the entity should adequately consider the statistical validity of the regression analysis being performed and assess whether any indicators exist that may invalidate the regression results. Refer to Appendix B for an overview of the basic concepts of regression.

4.8.3.5**Excluding certain components of the hedging derivative from the effectiveness test****Excerpt from Accounting Standards Codification****Derivatives and Hedging – Hedging-General****Recognition****Hedge Effectiveness Criteria Applicable to both Fair Value Hedges and Cash Flow Hedges****815-20-25-82**

In defining how hedge effectiveness will be assessed, an entity shall specify whether it will include in that assessment all of the gain or loss on a hedging instrument. An entity may exclude all or a part of the hedging instrument's time value from the assessment of hedge effectiveness, as follows:

- a. If the effectiveness of a hedge with an option is assessed based on changes in the option's intrinsic value, the change in the time value of the option would be excluded from the assessment of hedge effectiveness.
- b. If the effectiveness of a hedge with an option is assessed based on changes in the option's minimum value, that is, its intrinsic value plus the effect of discounting, the change in the volatility value of the contract shall be excluded from the assessment of hedge effectiveness.

¹⁰⁸ When updating their regression analysis, some entities may believe that certain new data should be discarded because it is believed to be aberrant (e.g., it relates to a singular event such as a natural disaster). We do not believe that this is appropriate. Instead, we believe this data should be incorporated into ongoing, updated regression analyses. However, regression analyses will often allow such aberrant data to be incorporated into a multi-period analysis in a way that helps to preserve hedge accounting. It is possible that the new data could be so aberrant to cause the entity to conclude that the regression analysis outputs are no longer supportive of hedge accounting.

- c. An entity may exclude any of the following components of the change in an option's time value from the assessment of hedge effectiveness:
 - 1. The portion of the change in time value attributable to the passage of time (theta)
 - 2. The portion of the change in time value attributable to changes due to volatility (vega)
 - 3. The portion of the change in time value attributable to changes due to interest rates (rho).
- d. If the effectiveness of a hedge with a forward contract or futures contract is assessed based on changes in fair value attributable to changes in spot prices, the change in the fair value of the contract related to the changes in the difference between the spot price and the forward or futures price shall be excluded from the assessment of hedge effectiveness.
- e. An entity may exclude the portion of the change in fair value of a currency swap attributable to a cross-currency basis spread.

815-20-25-83

No other components of a gain or loss on the designated hedging instrument shall be excluded from the assessment of hedge effectiveness nor shall an entity exclude any aspect of a change in an option's value from the assessment of hedge effectiveness that is not one of the permissible components of the change in an option's time value. For example, an entity shall not exclude from the assessment of hedge effectiveness the portion of the change in time value attributable to changes in other market variables (that is, other than rho and vega).

815-20-25-83A

For fair value and cash flow hedges, the initial value of the component excluded from the assessment of effectiveness shall be recognized in earnings using a systematic and rational method over the life of the hedging instrument. Any difference between the change in fair value of the excluded component and amounts recognized in earnings under that systematic and rational method shall be recognized in other comprehensive income. Example 31 beginning in paragraph 815-20-55-235 illustrates this approach for a cash flow hedge in which the hedging instrument is an option and the entire time value is excluded from the assessment of effectiveness.

815-20-25-83B

For fair value and cash flow hedges, an entity alternatively may elect to record changes in the fair value of the excluded component currently in earnings. This election shall be applied consistently to similar hedges in accordance with paragraph 815-20-25-81 and shall be disclosed in accordance with paragraph 815-10-50-4EEEE.

ASC 815 permits excluding a portion of the change in fair value of a hedging derivative from the assessment of hedge effectiveness. Components that are typically excluded are the time value of options, the discount or premium points of a forward contract (i.e., the difference between the forward and spot rates at the inception of a hedging relationship) and the cross-currency basis spread of a cross-currency swap (this spread represents a liquidity premium of one currency over the other that is included in the pricing of a cross-currency swap.) These elements of value can be viewed as the cost of entering into the hedge. In some cases, the change in fair value of these components may not offset a change in value of a hedged item. To avoid having the entire derivative fail the high correlation criteria of ASC 815, the FASB decided to allow certain components of the change in fair value of the derivative to be excluded from the assessment of effectiveness thereby allowing these instruments to qualify as effective hedges.

Amounts excluded from the assessment of hedge effectiveness are recognized in earnings through an amortization approach, unless the entity makes an accounting policy election to immediately recognize the change in fair value of any excluded components in earnings. An entity that makes this election is required to apply it consistently to similar hedges and disclose the election in its summary of significant accounting policies.

Under the amortization approach, which applies to all types of hedges, the initial value of the excluded component is recognized in earnings using a systematic and rational method over the life of the hedging instrument. The FASB decided to require amortization over the life of the hedging instrument rather than that of the hedged item to avoid complexities stemming from a change in the timing of the hedged item (e.g., a change in the timing of a forecasted transaction). Any difference between the change in the fair value of the excluded components and the amounts recognized in earnings under the systematic and rational method during the period is recorded in OCI. For net investment hedges, the amounts are recognized in the CTA section of OCI.

Upon discontinuation of the hedging relationship, any remaining amounts in AOCI (or the CTA section of OCI) related to components that were excluded from the assessment of hedge effectiveness are recognized in earnings in a manner consistent with the fair value, cash flow and net investment hedge accounting models, respectively. (See chapters 5, 6 and 7 for additional discussion on the treatment of excluded components when a fair value, cash flow or net investment hedging relationship is discontinued prior to the maturity of the hedging instrument.)

For cash flow and fair value hedges, any amounts excluded from the assessment of hedge effectiveness must be presented in the same income statement line where the earnings effect of the hedged item is presented, regardless of whether these amounts are recognized in earnings through an amortization approach or on a mark-to-market basis. For net investment hedges, the guidance does not specify where amounts excluded from the assessment of hedge effectiveness should be presented. (See chapters 5, 6 and 7 for additional discussion on the treatment of excluded components in fair value, cash flow and net investment hedges, respectively.)

How we see it

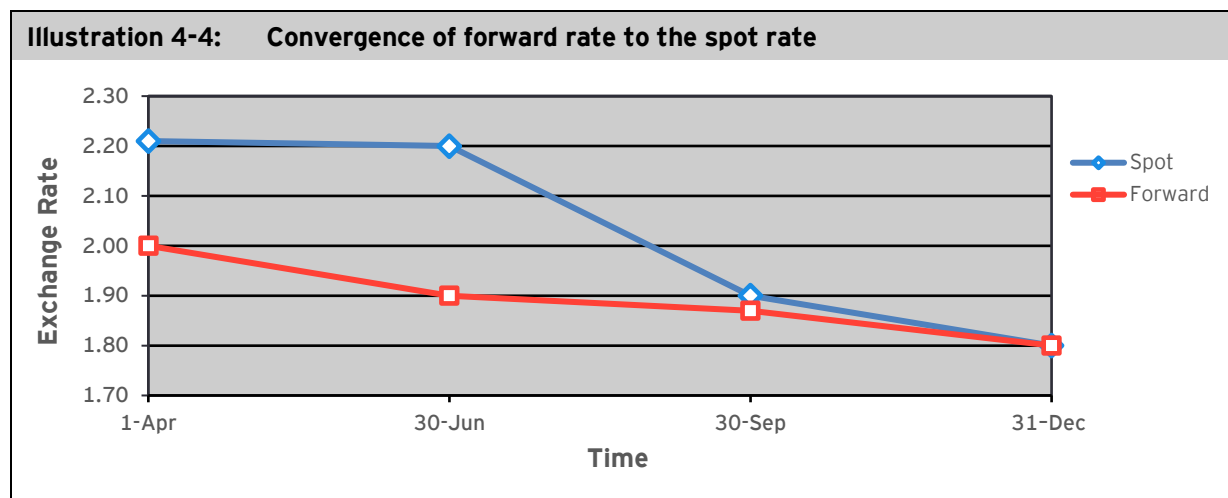
When components (such as time value) are excluded from the assessment of effectiveness in a hedging relationship, we expect most entities will use the amortization approach and recognize the initial value of these components in earnings in a systematic and rational manner. Under the amortization approach, the excluded component can be viewed as a fixed cost that is expensed over time, like an insurance premium.

This approach should result in less earnings volatility than electing to immediately recognize the change in fair value of any excluded components in earnings (i.e., on a mark-to-market basis). However, the Board decided to allow entities to make a policy election to account for excluded components on a mark-to-market basis in response to feedback from stakeholders that such an approach is more consistent with the economics of certain hedging strategies.

4.8.3.5.1

Spot vs. forward rates¹⁰⁹

When entities are evaluating using forward contracts as the hedging instrument in a commodity or foreign currency hedge, for example, they must decide on which rate to lock in: the spot rate or the forward rate. In most cases, the spot and forward rates are different, but by definition they always converge to the same rate on the expiration date of the derivative, as illustrated in the diagram below:



The following example illustrates the effect of excluding the difference between the spot rate and the forward rate from the effectiveness assessment of a foreign currency forward contract, and the impact on earnings of the alternative (i.e., not excluding the differential) in the assessment of hedge effectiveness.

Illustration 4-5: Forward points excluded from the assessment of effectiveness and recorded in earnings using the amortization approach

Company A is a US-dollar functional currency entity that forecasts EUR1.0 million of revenue from a large sale to a European customer expected to occur on 31 December 20X7. On 1 April 20X7, Company A enters into a nine-month forward contract to sell EUR1.0 million and receive \$2.0 million and designates the contract as the hedging instrument in a cash flow hedge of foreign exchange risk. The forward contract will net settle on 31 December 20X7. The USD/EUR spot exchange rate on 1 April is 2.21:1.

The table below represents the movement in spot and forward rates during 20X7:

| Spot and forward rates over time | | | | |
|----------------------------------|---------|---------|--------------|-------------|
| | 1 April | 30 June | 30 September | 31 December |
| Spot rate (USD/EUR) | 2.21 | 2.20 | 1.90 | 1.80 |
| Forward rate (USD/EUR) | 2.00 | 1.90 | 1.87 | 1.80 |
| Difference | 0.21 | 0.30 | 0.03 | – |

Note: $0.21 \times \text{EUR}1,000,000 = \$210,000 / 3 \text{ quarters} = \$70,000$ amortized into earnings each quarter

Company A elects to exclude the time value of the forward contract (i.e., the forward points) from the assessment of hedge effectiveness and recognize the initial value of the excluded component in earnings using the amortization approach. Company A further determines that amortization over the life of the hedging instrument on a straight-line basis represents a systematic and rational method to recognize the forward points into earnings.

¹⁰⁹ The use of spot rates or forward rates to assess hedge effectiveness is commonly referred to as the “spot method” or “forward method”, respectively.

As noted in the chart above, the initial forward/spot differential is \$210,000, which equates to \$70,000 being amortized into earnings each quarter. In this example, the forward points represent a cost to Company A, but they will be presented in the revenue line item because this is the line item where the hedged item is recorded.

The table below shows the changes in fair value of the forward contract allocated between changes in value due to spot rates and changes in value due to forward points. To simplify the example, the amounts shown ignore the effect of discounting:

| Change in fair value of forward contract due to spot rates and forward points | | | | |
|---|---------------------|------------|--------------|-------------|
| Valuation information | 1 April | 30 June | 30 September | 31 December |
| Fair value of forward | \$ 0 ¹¹⁰ | \$ 100,000 | \$ 130,000 | \$ 200,000 |
| Change in fair value of forward | n/a | \$ 100,000 | \$ 30,000 | \$ 70,000 |
| Change in value – spot rates | n/a | \$ 10,000 | \$ 300,000 | \$ 100,000 |
| Change in value – forward points | n/a | \$ 90,000 | \$(270,000) | \$(30,000) |

On 30 June 20X7, Company A records the following entries to record the change in fair value of the forward contract designated in an effective cash flow hedging relationship and to record the amortization of the initial value of the forward points into earnings using the systematic and rational method documented:

| | | |
|--|------------|------------|
| Forward contract (asset) | \$ 100,000 | |
| OCI | | \$ 100,000 |
| To record the change in fair value of the derivative in OCI. | | |
| Revenue | \$ 70,000 | |
| OCI | | \$ 70,000 |
| To record amortization of the excluded amount into earnings. | | |

Note: After the above entries have been recorded, the amount in AOCI as of 30 June 20X7 is a credit balance of \$170,000. This amount represents the change in value of the spot component of the derivative that is included in the assessment of hedge effectiveness (\$10,000 gain) plus the difference between the change in value of the excluded forward points (\$90,000 gain) and the amount recognized in earnings under the systematic and rational approach (\$70,000 cost); [\$90,000 – (\$70,000) = \$160,000]. The \$170,000 credit balance in AOCI as of 30 June can also be explained as follows:

- ▶ The derivative (in its entirety) has increased in value by \$100,000 during the period.
- ▶ Company A recognizes \$70,000 as a cost in earnings (i.e., contra-revenue) during the period in accordance with the straight-line amortization schedule for the initial value of the forward points.
- ▶ Company A therefore records \$170,000 in OCI. This allows the derivative to be carried at its fair value on the balance sheet as required by ASC 815, while also allowing only a portion of the excluded components to be recorded in earnings in accordance with the amortization approach in the guidance.

On 30 September 20X7, Company A records the following entries:

| | | |
|--|-----------|-----------|
| Forward contract (asset) | \$ 30,000 | |
| OCI | | \$ 30,000 |
| To record the change in fair value of the derivative in OCI. | | |

¹¹⁰ On 1 April 20X7, no entry is required because the fair value of the forward contract is zero at hedge inception (no premium is paid or received at inception because the terms of the forward contract are at the current forward price).

| | | |
|--|-----------|-----------|
| Revenue | \$ 70,000 | |
| OCI | | \$ 70,000 |
| To record amortization of the excluded amount into earnings. | | |

On 31 December 20X7, prior to settlement, Company A makes the following entries (shown for illustration purposes):

| | | |
|--|-----------|-----------|
| Forward contract (asset) | \$ 70,000 | |
| OCI | | \$ 70,000 |
| To record the change in fair value of the derivative in OCI. | | |

| | | |
|--|-----------|-----------|
| Revenue | \$ 70,000 | |
| OCI | | \$ 70,000 |
| To record amortization of the excluded amount into earnings. | | |

In addition, Company A makes the following entries to record the occurrence of the forecasted sale in euros, to record the net settlement of the derivative contract and to reclassify the remaining balance in AOCI to earnings (as the forecasted transaction affects earnings):

| | | |
|--|--------------|--------------|
| Cash | \$ 1,800,000 | |
| Revenue | | \$ 1,800,000 |
| To record foreign sale EUR1,000,000 (converted at the 31 December 20X7 spot rate of 1.80). | | |

| | | |
|---|------------|------------|
| Cash | \$ 200,000 | |
| Forward contract (asset) | | \$ 200,000 |
| To record net settlement of derivative asset. | | |

| | | |
|--|------------|------------|
| OCI | \$ 410,000 | |
| Revenue | | \$ 410,000 |
| To reclassify balance in AOCI to earnings upon the occurrence of the forecasted sale in euros. | | |

Note: At the end of the hedging relationship, the balance remaining in AOCI was a credit balance of \$410,000, which reflects the change in the spot rate from 1 April 20X7 to 31 December 20X7 calculated as follows: $(2.21 - 1.80) = 0.41 \times \text{EUR}1,000,000 = \$410,000$. Because the hedge was not discontinued early, all changes in the fair value of the excluded forward points were eliminated in OCI, resulting in only the initial value of the excluded forward points (i.e., \$210,000) affecting earnings.

The EUR1.0 million received from the forecasted foreign sale equates to \$1.8 million (1.80 spot rate X EUR1,000,000) in functional currency revenue. This is \$410,000 less than what revenue in US dollars would have been if the 1 April 20X7 spot rate was used to recognize this transaction due to the strengthening of the US dollar against the euro. Because Company A executed a hedge to lock in the 1 April spot rate, Entity A records an additional \$410,000 in revenue (reclassified from AOCI). This results in gross revenue of \$2.21 million, consistent with the spot rate at the inception of the hedging relationship. Although it was excluded from the assessment of hedge effectiveness, the \$210,000 initial value of the forward points was recorded as a cost against revenue over the life of the hedging relationship. As such, the aggregate net revenue recorded for this transaction was \$2.0 million ($\$1,800,000 + \$410,000 - \$210,000$), which is consistent with the forward rate on the hedging instrument.

How we see it

The aggregate functional currency revenue related to the transaction in the example above would be the same, regardless of the approach used to recognize excluded components in earnings (i.e., amortization versus mark-to-market approach) or the method used to assess hedge effectiveness (i.e., the spot method versus the forward method), assuming the hedging relationship remains highly effective under both methods. However, these different elections will affect when changes in the fair value of the hedging instrument are recorded in earnings. The table below shows how using the amortization approach instead of the mark-to-market approach to account for excluded components reduces earnings volatility over the life of the hedging relationship.

| Recognition and assessment method | Revenue recorded for periods ending: | | | | |
|---|--------------------------------------|----------|----------------------|---------------------------------|-----------|
| | 30-Jun | 30-Sept | 31-Dec | Effect of hedged item at 31-Dec | Aggregate |
| Excluded component – amortization | \$ (70) | \$ (70) | \$ (70) + 410* = 340 | \$ 1,800 | \$ 2,000 |
| Excluded component – mark to market | \$ 90 | \$ (270) | \$ (30) + 410* = 380 | \$ 1,800 | \$ 2,000 |
| Forward method (i.e., no components excluded) | \$ 0 | \$ 0 | \$ 200^ | \$ 1,800 | \$ 2,000 |

* Reclassification of AOCI balance related to changes in the spot rate (included in the assessment of hedge effectiveness)

^ Reclassification of AOCI balance related to the entire change in fair value of the hedging instrument

4.8.3.5.2

Time value of options

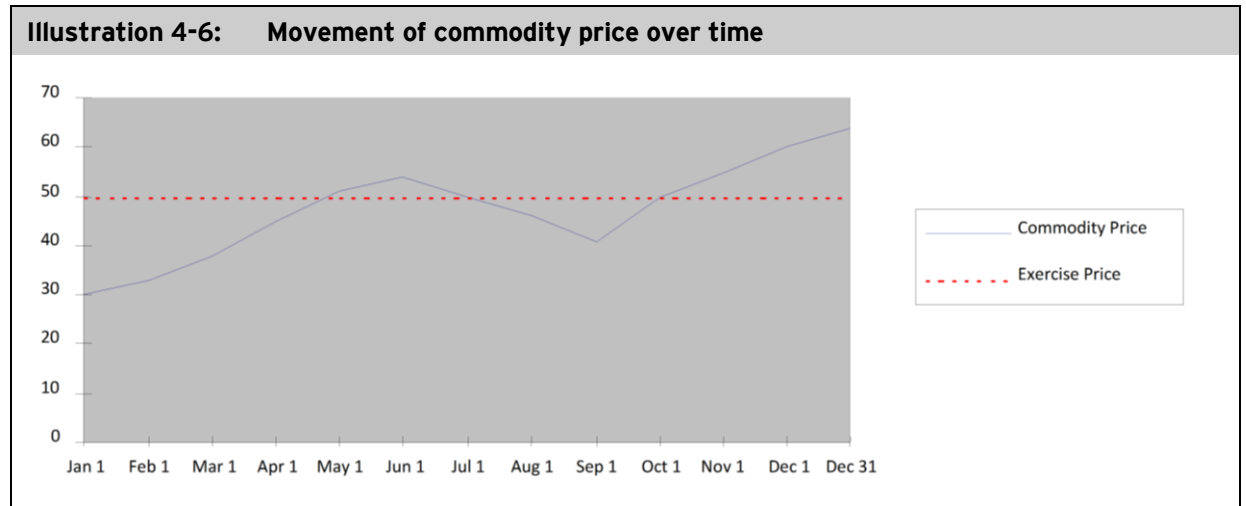
At inception, the fair value of an option consists of time value and perhaps intrinsic value, if the option is already in the money. An option's time value changes as the volatility of the underlying changes and generally decays as an option approaches its expiration date. If exercised at expiration, the fair value of an option is only its intrinsic value. Thus, when exercised, an option has changed in value because the time value component of the option has decreased to zero from its original fair value, but the hedged item will not have experienced an offsetting change in value related to the time value decay. If an option is not exercised, it is because its fair value at expiration is zero (i.e., there is no intrinsic value and the original time value component of the option has decayed to zero).

For example, in the fair value hedge of an available-for-sale debt security using a purchased put option, only the increase in the intrinsic value of the option will offset the decline in value of the hedged item. Therefore, the time value of the option represents an inherent mismatch in such a fair value hedge. To maintain a highly effective fair value hedging relationship, entities will generally choose to exclude the option's time value from the assessment of hedge effectiveness.¹¹¹ For cash flow hedges, the mismatch due to the time value of the option will depend on how the entity has decided to assess effectiveness – that is, based on intrinsic value or based on the change in the full fair value as later described in section 6.6.1. The following example illustrates the differences between time value and intrinsic value of an option hedging the purchase of a commodity. For this cash flow hedge, the entity is excluding time value from the assessment of hedge effectiveness.

¹¹¹ Not all fair value hedges using option derivatives should exclude time value from the hedge effectiveness assessment. When an option is being utilized to offset the changes in fair value of an existing asset or liability, which itself is characterized by optionality (such as a callable, puttable, or prepayable financial instrument or mortgage servicing right), the inclusion of the time value in the effectiveness assessment is more likely to increase rather than decrease the effectiveness of the hedge design.

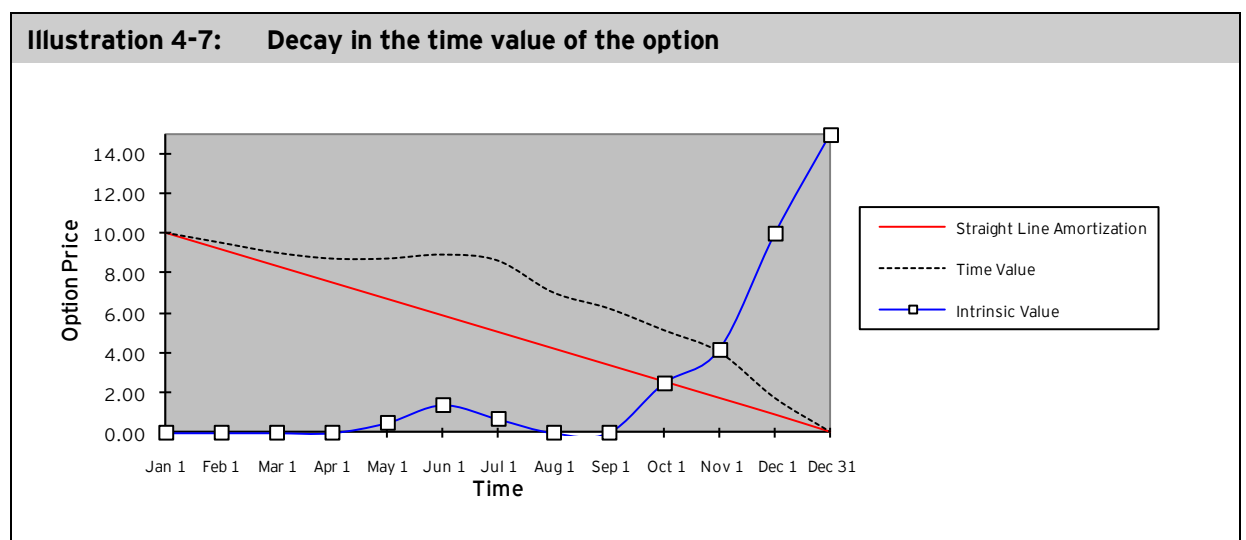
On 1 January, an entity enters into a call option to purchase a commodity at \$50 per unit. The call option expires on 31 December. The entity paid a premium of \$10 for the option, and at inception of the hedge the commodity price is \$30 per unit. The option is out of the money because there is no immediate benefit of exercising it. The \$10 paid for the call option at inception is all time value and there is no intrinsic value to the option. In this example, the call option will only be effective if the commodity price later exceeds \$50 per unit.

The chart below illustrates the assumed movement in the price of the commodity over a one-year period.



The table above illustrates that the price of the commodity fluctuated significantly during the 12-month period. The price began at \$30 per unit and ended at \$65 per unit. The hedge could be viewed as effective only at times when the price of the commodity is in excess of \$50 per unit (i.e., 1 May through 1 July and subsequent to 1 October). When the option is in the money, the entity has the right to purchase the commodity at a price below the current market value of that commodity. At such times, the portion of the fair value of the option that relates to the right to purchase the commodity below market is considered the option's "intrinsic value."

The chart below illustrates the assumed decay of time value of the option over the year and the recognition of intrinsic value of the option when the option is in the money. At any given date, the total value of the option is the sum of the time value and the intrinsic value.



In accordance with 815-20-25-83A, the initial time value of the option excluded from the assessment of hedge effectiveness (i.e., the option premium of \$10) is amortized into earnings on a systematic and rational method (e.g., straight-line) over the life of the option. Any difference between the change in the fair value of the excluded component during the period (based on the decay of the time value) and the amount amortized into earnings during the period under the systematic and rational method is deferred in AOCI. In the chart above, the space between the red amortization line and the dotted time value line represents this difference. When the option is in the money (i.e., from 1 May to 1 July and subsequent to 1 October), changes in the intrinsic value will offset the change in fair value of the hedged item or transaction.

How we see it

It should be noted that in practice the actual split between the time value of an option and the intrinsic value of an option will be more complex than illustrated above. The guidance in 815-20-25-82 allows an entity to exclude all or a part of the change in a hedging option's time value (i.e., theta, vega and/or rho) from the assessment of hedge effectiveness. The most common approach is to assess effectiveness based on changes in the option's intrinsic value or the amount that the option is in the money (based on current spot rates). However, some entities may choose, for example, to assess hedge effectiveness based on changes in the option's minimum value (i.e., its intrinsic value plus the effect of discounting). Under this method, the change in the volatility value (i.e., vega) of the option contract would be excluded from the assessment of hedge effectiveness.

The example above illustrates a unique feature of options: they are only effective in managing or offsetting risk as values move in one direction. In our example, when the commodity price was less than \$50 per unit, the holder of the option did not incur a loss in intrinsic value to offset the lower cost of buying the commodity. Examples of options also include purchased caps or floors. (See the discussion in section 4.5.1 on written options.)

Entities that use these one-sided hedging instruments will define effectiveness differently from those that use two-sided instruments (e.g., swaps, futures, forwards). For instance, in the case above, the effectiveness definition would most likely state that the intrinsic value of the call option is expected to offset increases in the commodity price above \$50 per unit. Note that if the guidance in ASC 815-20-25-126 is applied, the effectiveness definition would be different (e.g., based on terminal value).

4.8.3.5.3

Cross-currency basis spread

As noted above, for fair value and cash flow hedges, the guidance also permits entities to exclude from the assessment of hedge effectiveness the portion of the change in the fair value of a currency swap attributable to the cross-currency basis spread.

How we see it

Excluding the cross-currency basis spread from the assessment of hedge effectiveness is more beneficial for fair value hedges of foreign-denominated assets and liabilities (e.g., foreign-denominated debt). Changes in the fair value of this spread have historically resulted in a less effective fair value hedge because there is no corresponding offset in the hedged item. Cross-currency basis spreads do not affect cash flow hedges in the same way because entities are allowed to assume that the discount rate for the hedged item is consistent with that of the hedging instrument. This results in the terms of the hypothetical derivative matching those of the actual derivative, all else being equal.

While the guidance on excluding a cross-currency basis spread relates only to fair value and cash flow hedges, this spread represents an element of the total amount historically excluded from the assessment of hedge effectiveness when using an eligible cross-currency swap as the hedging instrument in a net investment hedge assessed under the spot method. This is because the guidance in ASC 815-35-35-5 states that a net investment hedge is considered to be perfectly effective under the spot method as long as (1) the notional amount of the hedging derivative matches the portion of the net investment designated as being hedged, (2) the derivative instrument's underlying exchange rate is the exchange rate between the functional currency of the hedged net investment and the investor's functional currency and (3) the cross-currency swap used as the hedging instrument is either a fixed-for-fixed or a float-for-float cross-currency swap.

When these criteria are met, the amount reported in CTA is limited to the changes in the spot rate on an undiscounted basis because the guidance in ASC 815-35-35-6 requires the interest accrual component of the cross-currency swap (which would include the cross-currency basis spread adjustment) to be reported directly in earnings.

Like other excluded components, the initial value of the cross-currency basis spread excluded from the assessment of effectiveness may be amortized into earnings using a systematic and rational method over the life of the hedging instrument. However, in the Basis for Conclusions of ASU 2017-12, the Board highlights that because the initial cost of a cross-currency basis spread is embedded in the coupon payments of the swap, this initial cost is recorded in earnings each period through the typical swap accrual process. In the Board's view, recognizing the cross-currency basis spread in earnings through the swap accrual represents a systematic and rational method for recognizing the cost of the cross-currency basis spread in earnings, and, therefore, no separate amortization of this amount will generally be required.

4.8.3.6

Hedging relationships with mismatches present in hedge designs

There are certain situations where the design of a hedge creates a mismatch between the change in fair value or cash flows of the hedging instrument and the change in fair value or cash flows of the hedged item or hedged transaction simply because the terms (e.g., notional amount, maturity, interest rate reset dates, payment timing, basis differences) of the derivative instrument and the hedged item do not match. In these cases, the hedge may be highly effective, but entities must be careful in proceeding with hedge designs that have mismatches in critical terms because too much lack of correlation could cause the design to be ineligible for hedge accounting. The following examples illustrate highly effective hedge designs that result in a mismatch due to basis risk:

- ▶ *Natural gas inventory fair value hedge:* Company A has natural gas stored at its location in West Texas. To hedge the fair value exposure of its natural gas inventory, Company A sells natural gas futures contracts, in an amount equal to the company's current inventory, on the NYMEX. The NYMEX futures prices are based on delivery of natural gas at the Henry Hub gas collection point in Louisiana. Although probably highly correlated, the price of Company A's natural gas inventory in West Texas and the price of the natural gas that is underlying the futures the company sold will differ as a result of regional factors (i.e., location, pipeline or transportation cost, and supply and demand). ASC 815 does not permit Company A to assess effectiveness in a fair value hedge of nonfinancial risk based solely upon the change in the price of natural gas delivered to the Henry Hub. Rather, it must consider the correlation of the change in the price of natural gas at the Henry Hub with the change in natural gas prices in West Texas. The difference between prices of natural gas at the Henry Hub and prices of natural gas at the West Texas location (the "basis difference") creates a mismatch between the change in fair value of the inventory and the futures contract that will be reflected in earnings. If the change in the difference is significant during any period, it could result in the disqualification of the hedging relationship.

- ▶ *Foreign currency cash flow hedge:* An entity that uses the US dollar as its functional currency has a currency exposure associated with a forecasted purchase of inventory in New Zealand dollars but chooses to hedge that exposure by entering into an Australian-dollar-based forward. Although the entity expects the New Zealand and Australian currencies to be highly correlated, it must demonstrate at hedge inception and throughout the life of the hedge that the two currencies have been and are expected to continue to be highly correlated. To the extent the changes in forward rates of the Australian dollar are highly correlated with changes in the forward rate for the New Zealand dollar during the life of the hedge, the entire change in the fair value of the Australian-dollar-based forward (assuming no components are excluded) would be recorded in OCI until the hedged item affects earnings. In this case, the effect of the mismatch (given that the two currencies are not perfectly correlated) will affect the US-dollar cost basis at which the inventory is recorded and will ultimately affect earnings (through cost of goods sold) when the inventory is sold.

Mismatches also arise when other differences in the terms of the derivative and the hedged item exist, such as differences in the notional amounts, rate reset dates, maturity or cash flow receipt/payment dates. For example, foreign currency swaps that call for quarterly settlements will not perfectly hedge anticipated annual royalty payments.

4.9 Credit risk in derivative contracts – accounting considerations

Derivative contracts accounted for under ASC 815 are measured at fair value and are therefore within the scope of ASC 820. Because ASC 820 requires the consideration of credit risk in measuring the fair value of financial instruments, including derivatives, unique challenges present themselves both in the fair value determination for derivatives and, if they are used in designated hedging relationships, in the assessment of hedge effectiveness.

The objective of this section is to address, at a high level, how entities are incorporating the ASC 820 credit risk consideration requirements into their fair value determinations for derivatives, and then summarize the implications for hedge accounting – for both fair value hedges and cash flow hedges. Subsequent sections address how credit risk that is calculated at a derivative portfolio level might be allocated down to an individual derivative contract level, and how the SEC staff would like to see entities disclose the effects of credit risk on the fair value of derivatives.

4.9.1 Incorporating credit risk into the fair value of derivatives

Credit risk associated with a derivative contract is similar to other forms of credit risk in that the cause of economic loss is the obligor's default before the maturity of the contract. However, two features in many derivative contracts set their credit risk apart from more traditional forms of credit risk in other instruments, such as debt:

- ▶ The bilateral nature of credit risk in many derivative instruments, such as swaps and forwards
- ▶ The uncertainty of the credit exposure upon default (due to the uncertainty of the future fair value change in the derivative instrument)

In these instruments, both parties to the transaction are exposed to credit risk given the potential for the instrument to “flip” from an asset to a liability (or vice versa), and for the “amount” of such asset or liability to be constantly subject to variation over time depending on market movements and the progression of time toward contract expiration.

In ASC 815-20-35-14 through 35-18 (the counterparty default guidance in ASC 815), the FASB noted that changes in the fair value of a derivative are affected by changes in the creditworthiness of the counterparty to the derivative. The body of ASC 815 literature is generally silent about the creditworthiness, or nonperformance risk, of the hedging entity itself.¹¹² However, the fair value measurement guidance in ASC 820 introduced the concept of an entity's own nonperformance risk explicitly, stating in ASC 820-10-35-16 through 35-18A that the fair value of a liability shall reflect the nonperformance risk (including the entity's own credit risk) related to that liability.

With respect to the consideration of counterparty credit risk, the guidance in ASC 820 is more implicit, in that it requires that the fair value of an instrument be determined based on the assumptions that market participants would use in pricing the asset or liability. As market participants would typically consider counterparty credit risk in pricing derivative contracts, an entity's valuation methodology should also incorporate the effect of this risk on fair value.

Credit valuation adjustment. Entities should incorporate a credit valuation adjustment (CVA) within the fair value methodology for their derivative positions in order to appropriately capture the fair value of the derivative or portfolio of derivatives. This CVA arguably should contemplate both of the unique credit qualities of derivatives mentioned above (i.e., creditworthiness of the counterparty and the nonperformance risk of the hedging entity), the bilateral nature of the risk in symmetrical contracts like forwards and swaps (as opposed to one-way risk contracts such as options) and the "potential future exposure" associated with the uncertainty of the future fair value change of the derivative prior to the possible default of either counterparty.

The concept of "potential future exposure" contemplates the likelihood that by the time of default, a derivative asset could become a liability with corresponding "own entity" nonperformance risk, and a derivative liability could become an asset with corresponding counterparty credit risk. It is important to note that, for many reasons, including the bilateral nature of the risk in many contracts, the CVA may not be a material element to the overall fair value of the derivative at a given valuation date.

More complex derivative contracts, such as swaps, involve multiple periodic settlements, some of which may represent expected cash outflows and some of which may represent expected cash inflows, all embodied in the same instrument. It is commonplace for swap assets to represent, upon decomposition of each expected cash flow, or "swaplet," gross swaplet assets net of smaller gross swaplet liabilities, or similarly, swap liabilities to represent gross swaplet liabilities net of smaller gross swaplet assets. As time passes, even if there are no underlying market movements, net fair value exposure changes as each net inflow or net outflow of cash (i.e., each swaplet) occurs and there are fewer swaplets remaining. Since underlying market movements will undoubtedly occur, the amount of each swaplet will also likely increase or decrease as time passes.

We believe the consideration of possible future credit risk exposure is consistent with ASC 820-10-35-16 through 35-18A because of its assumptions that a liability is transferred to a market participant at the measurement date and nonperformance risk relating to that liability is considered to be the same before and after its transfer. In other words, ASC 820 presumes that the derivative has an ongoing life after the entity "exits" the position. This presumption complicates the valuation of derivatives in contrast to an assumption that a derivative asset need only contemplate counterparty nonperformance and that a derivative liability need only contemplate one's own nonperformance.

There are various acceptable methodologies to materially capture the market participant assumptions that comprise an appropriate CVA for a derivative contract. Furthermore, the CVA calculation would need to contemplate collateral arrangements, master netting agreements, credit support annexes and other credit enhancement or risk mitigation tools that serve to reduce the credit exposure associated with a derivative

¹¹² Other than discussions isolated to use of the shortcut method in ASC 815-20-25-111.

and that are not otherwise separately accounted for. However, while these arrangements often serve to reduce credit exposure, they typically do not completely eliminate the exposure. For example, most credit support annexes do not require collateral to be posted until a certain fair value threshold has been reached, and, once reached, collateral is only required for the exposure in excess of the threshold.

In addition, the credit risk associated with exchanged-traded or centrally cleared derivatives is often considered nil since the counterparties are required to post variation margin daily. (Refer to section 8.13.3 for additional discussion on centrally cleared derivatives.)

ASC 820's unit-of-valuation guidance permits, in certain instances, an analysis of nonperformance risk of derivatives with the same counterparty on a portfolio basis, allowing the mitigating effect of credit support annexes and master netting agreements to have their full effect in the calculation of the CVA for the portfolio as a whole. However, the unit of account in ASC 815 is the individual derivative contract. Many entities have struggled with assessing the effect of nonperformance risk on individual derivatives when it has been measured for a portfolio of derivatives with the same counterparty. This topic is addressed in section 4.9.4.

4.9.2 Cash flow hedges and the implications of credit valuation adjustments for hedge accounting

The counterparty default guidance in ASC 815 notes that entities must consider the likelihood of the counterparty's compliance with the contractual terms of a hedging derivative that require the counterparty to make payments to the entity, and consideration of such creditworthiness (and changes thereto) must factor into the determination of the derivative's fair value. As discussed above, ASC 820 built on that concept and further added that the derivative's fair value must reflect changes in the hedger's own creditworthiness as well.

4.9.2.1 Effect on the assessment of whether a hedge is highly effective and qualifies for hedge accounting

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Subsequent Measurement

Possibility of Default by the Counterparty to Hedging Derivative

815-20-35-14

For an entity to conclude on an ongoing basis that the hedging relationship is expected to be highly effective in achieving offsetting changes in cash flows, the entity shall not ignore whether it will collect the payments it would be owed under the contractual provisions of the derivative instrument. In complying with the requirements of paragraph 815-20-25-75(b), the entity shall assess the possibility of whether the counterparty to the derivative instrument will default by failing to make any contractually required payments to the entity as scheduled in the **derivative instrument**. In making that assessment, the entity shall also consider the effect of any related collateralization or financial guarantees. The entity shall be aware of the counterparty's creditworthiness (and changes therein) in determining the fair value of the derivative instrument. Although a change in the counterparty's creditworthiness would not necessarily indicate that the counterparty would default on its obligations, such a change shall warrant further evaluation.

815-20-35-15

If the likelihood that the counterparty will not default ceases to be probable, an entity would be unable to conclude that the hedging relationship in a cash flow hedge is expected to be highly effective in achieving offsetting cash flows.

For an entity to conclude on an ongoing basis that the hedging relationship is expected to be highly effective, the entity cannot ignore whether it will collect the payments it would be owed under the contractual provisions of the derivative. Moreover, by logical extension, ASC 820 adds that the entity cannot ignore whether it will be able to make payments it would owe under the contractual provisions of the derivative. If the likelihood that the counterparty¹¹³ will not default ceases to be probable, the hedger would be unable to conclude that the hedging relationship is expected to be highly effective in achieving offsetting cash flows in cash flow hedging relationships.

How we see it

Given the guidance in ASC 815-20-35-14, entities that have over-the-counter derivative contracts that are not centrally cleared with counterparties whose credit ratings are below investment grade may not be able to assert that the hedging relationship will be highly effective absent sufficient collateral or guarantees on the derivative. The relative size of a credit valuation adjustment to the overall fair value of a derivative hedging instrument may be one indicator of whether the likelihood that the counterparty will not default remains probable.

In addition, the counterparty default guidance in ASC 815 requires entities to consider counterparty creditworthiness on an individual derivative basis if the derivatives are used in qualifying ASC 815 hedges and the shortcut method is not being utilized.

Note that the concept in the counterparty default guidance in ASC 815 applies equally to derivative contracts that are assets or liabilities. A hedger may be in an unrealized loss position with respect to a derivative contract with a counterparty that has experienced modest credit deterioration, and that derivative's fair value may not be immediately affected in a significant way because the counterparty is *currently* not required to perform. However, the credit deterioration of the counterparty indicates that the derivative may not behave symmetrically with subsequent reversing movements in the underlying (that is, the contract may not shift toward an unrealized gain position when it should, based on changes in the underlying alone).

In addition to assessing the creditworthiness of the derivative counterparty, ASC 815-20-25-16(a) also requires that an entity using a cash flow hedge assess the creditworthiness of the counterparty to the hedged forecasted transaction in determining whether the forecasted transaction is probable, as required by ASC 815-20-25-15(b), particularly if the hedged transaction involves payments pursuant to a contractual obligation of the transaction counterparty.

Changes in the creditworthiness of either counterparty to the derivative contract, while warranting further evaluation, will often result in a conclusion that the likelihood that either counterparty will not default remains probable. Accordingly, hedge accounting remains appropriate to apply. However, such changes in creditworthiness may affect the assessment of hedge effectiveness under one particular assessment approach (i.e., the change-in-fair-value method) as discussed further below.

¹¹³ The FASB did not amend the counterparty default guidance in ASC 815 upon the issuance of the fair value measurement guidance in ASC 820 to specifically state that a hedger must consider whether the likelihood that the hedger itself will not default remains probable. However, we believe that this requirement is a logical inference based on the principle that underlies the counterparty default guidance in ASC 815. Such guidance is focused on creditworthiness concerns that affect the fair value of the derivative, rendering it incapable of performing at a "highly effective" level because there is sufficient doubt that the derivative will perform in accordance with its stated terms. Although there is flexibility in terms of the methodologies that an entity might use to assess whether a hedge is "highly effective" on a prospective or retrospective basis, all such methodologies would be expected to consider the changes in the expected cash flows of the derivative and the resultant effect on the fair value of the derivative. Either derivative counterparty at any given cash flow date may be required to perform and make the cash flow under the derivative that provides the hedging effect that "fixes" the variable hedged cash flow. Expectations about the likelihood of the cash flows of a derivative, and thereby its fair value, can be affected by creditworthiness concerns attributable either to the counterparty or to the hedger.

Should credit risk associated with the hedged cash flow be separately considered? The hedged forecasted transaction in a cash flow hedge is not an asset or a liability recorded at fair value and, therefore, it is not within the scope of ASC 820. The hedged forecasted transaction in a cash flow hedge is required to be “probable.” Accordingly, entities would typically not probability weight hedged cash flows to create a “certainty-equivalent” cash flow, as defined in ASC 820-10-55-15, because to do so could be seen to imply that the hedged cash flow was “less than probable of occurring.” As ASC 820 does not apply to the hedged forecasted transaction, it would not add such a probability-weighting requirement.

Counterparty risk (i.e., credit risk) does affect whether the hedged cash flow is likely to occur in the absolute, but generally, an individual cash flow will either occur in its entirety or not occur at all. As noted above, a cash flow hedging relationship cannot be sustained if it is not probable the hedged cash flow will occur in its entirety. But if a hedged cash flow is probable of occurring, hedge accounting is permitted and changes in the risk of nonperformance (e.g., credit spreads) within certain ranges, all of which still reflect the cash flow remaining probable of occurring, are not relevant to the assessment of hedge effectiveness because they will not *change* the amount of the ultimate cash flow or represent a source of variability.

How we see it

Some hedged cash flows may, according to the terms of an associated instrument, change in amounts due to resetting of credit spreads or due to some other credit-related index, such as one based on EBITDA. In cash flow hedges of the entire variability of a hedged cash flow, variability due to credit-related indexes such as these must be considered in the assessment of hedge effectiveness.

The theoretical underpinning of cash flow hedge accounting is that the forecasted cash flows remain probable of occurring. The entity must consider the source of those cash flows and whether the creditworthiness of the source of those cash flows affects their probability of occurrence, a requirement specifically cited in the counterparty default guidance in ASC 815-20-25-16(a). As long as the cash flows remain “probable” overall, changes in degrees of probability would not affect the assessment under any of the methods outlined in ASC 815-30-35-10 through 35-32.

ASC 815-30-35-10 through 35-32 outlines three permitted methods, described below, for assessing effectiveness in cash flow hedges. (Note that each method is discussed in detail in chapter 6 and illustrated in Example 12.) Each method contains accommodations for cash flow hedges that are intended to eliminate the effect on hedge effectiveness attributable to the use of different yield curves for measuring cash flows related to the hedged item and the derivative. These accommodations involve utilizing the *same* credit-adjusted discount curve for both the derivative and the hedged item in all three methods.

In application, ASC 820 does not affect ASC 815’s change-in-variable-cash-flows method, or hypothetical-derivative method, as credit risk associated with the hedged cash flows is not further considered under these methods as long as the cash flows remain “probable” and hedge effectiveness assessments have already concluded that the hedge accounting can be applied. ASC 820 does affect the change-in-fair-value method, as discussed below.

Change-in-variable-cash-flows method. Under this method, if the variability of the hedged cash flows of the floating-rate asset or liability is based solely on changes in a floating-rate index, the cumulative changes in expected future cash flows on both the floating-rate leg of the swap and the floating-rate asset or liability should be discounted *using the rates applicable to determining the fair value of the swap*. As such, under this approach, hedge effectiveness is not affected by using different yield curves (i.e., discounting curves) to calculate cash flows related to the hedged item and the hedging instrument. In examples using the discount rate adjustment technique to consider the nonperformance risk of both the hedger and the counterparty to the hedging instrument, the discounting curve that results from this analysis is used to discount the hedged cash flows as well. Similarly, if a credit valuation adjustment is calculated using a different methodology, the identical credit valuation adjustment should be applied to the calculations applied to the changes in the expected future cash flows on the floating-rate asset or liability.

Hypothetical-derivative method. Under this method, the actual derivative would be reported at fair value on the balance sheet. The assessment of effectiveness involves a comparison of the change in the fair value of the actual derivative and the change in the fair value of a “perfect” hypothetical derivative. Similar to the change-in-variable-cash-flows method, the discounting yield curve for both the actual derivative and the hypothetical derivative should be the same. The intent of this method is that the determination of the fair value for both derivatives should use discount rates based on the same swap curve, which has been developed using a discount rate adjustment technique that considers the nonperformance risk of both the hedger and the counterparty. Likewise, if a credit valuation adjustment is determined for the actual derivative using another acceptable methodology, the identical credit valuation adjustment should be applied to the hypothetical derivative.

Under both of the aforementioned methods, a periodic change in the credit valuation adjustment applied to the derivative does not affect the overall assessment of hedge effectiveness because this change is replicated identically for the calculations that affect the hedged item.

How we see it

Valuation specialists have noted that even if one presumes that the actual derivative and the hypothetical derivative are between the same two counterparties, a different pre-CVA fair value for the actual derivative and the hypothetical derivative would logically call for different CVAs applied to the different fair values. This observation, however, is a financial concept and does not appreciate the accounting construct. We believe that the application of the methods in ASC 815-30-35-10 through 35-32 would allow the same credit valuation adjustment made to the actual derivative to also be made to the hypothetical derivative. The hypothetical derivative merely represents a proxy for the hedged cash flows, and the variability of those hedged cash flows will not be affected by changes in credit risk or credit spreads.

Change-in-fair-value method. Under this method, the assessment of hedge effectiveness is based on a calculation that compares (a) the *present value* of the cumulative change in expected variable future interest cash flows that are designated as the hedged transactions with (b) the cumulative change in fair value of the swap. ASC 820 and its emphasis on consideration of the hedger’s nonperformance risk only affects element (b).

However, similar to the change-in-variable-cash-flows and hypothetical-derivative methods, this method states that the discount rates attributable to determining the fair value of the derivative designated as the hedging instrument should also be applied to the computation of present values of the cumulative changes in the hedged cash flows. Again, this method notes that the discounting yield curve should be the same for the swap as for the hedged cash flows. Similarly, the credit valuation adjustment if calculated using another acceptable methodology should be the same for the derivative as for the calculations affecting the hedged item.

However, in contrast to the other methods, this method’s calculations affecting the hedged item’s cash flows focus on the *change* in the expected cash flows from the beginning of the period to the end of the period, with such *change* discounted at only the end-of-period discounting yield curve. Said another way, the calculation for the change in fair value of the derivative contemplates a change from the beginning-of-period CVA to the end-of-period CVA, but the comparable calculation for the hedged item’s cash flows would incorporate only the derivative’s end-of-period CVA. Because the actual mechanics of this method do not involve the same “apples-to-apples” comparison that the other two methods do, a change in the derivative counterparties’

creditworthiness can have an immediate effect on the effectiveness assessment.¹¹⁴ Note, however, that this impact is still muted because it calls for the change in hedged cash flows' computation to use the same CVA at the end of the period that is being applied to the derivative at the end of the period.

In summary, once it is determined in the hedge effectiveness assessment process that both counterparties to a derivative are not expected to default on their potential obligations to one another, and, upon satisfying this threshold, that it is appropriate to apply hedge accounting, changes in the hedging derivative (including credit valuation adjustment) would be deferred in AOCI until the hedged item affects earnings.

Cash flow hedges applying the shortcut method. Although interest rate swaps used in cash flow hedges rarely qualify for use of the shortcut method,¹¹⁵ the principles in the counterparty default guidance in ASC 815 must be considered for those relationships that do qualify.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Assuming Perfect Hedge Effectiveness in a Hedge with an Interest Rate Swap (the Shortcut Method)

815-20-25-103

Implicit in the conditions for the shortcut method is the requirement that a basis exist for concluding on an ongoing basis that the hedging relationship is expected to be highly effective in achieving offsetting changes in fair values or cash flows. In applying the shortcut method, an entity shall consider the likelihood of the counterparty's compliance with the contractual terms of the hedging derivative that require the counterparty to make payments to the entity.

The shortcut method is discussed in detail in section 4.8.2 of this chapter.

Cessation of cash flow hedge accounting. A party to a derivative contract does not typically enter into financial distress overnight. Fair value concepts should contemplate changes in market participant concerns regarding nonperformance risk as they occur. Eventually, as market perceptions of nonperformance risk continue to increase, such deterioration could call into question the continued application of hedge accounting for those affected derivatives in formal hedging relationships.

The determination that a hedging relationship is not highly effective due to the significant nonperformance risk of either counterparty as it experiences financial distress may present special challenges. These challenges are discussed in section 4.9.5.

¹¹⁴ In practice, the change-in-fair-value method might also be calculated in a manner that focuses on the change in expected cash flows from the beginning of the assessment period to the end of the assessment period, but the expected cash flows at the beginning of the period are *first* discounted using the beginning-of-period yield curve before the comparison is made to the end-of-period expected cash flows.

See Example 12 in chapter 6 for additional discussion of the alternative approaches to the application of the change-in-fair-value method.

¹¹⁵ Because most variable-rate debt is prepayable at an amount other than its fair value, it violates ASC 815-20-25-104(e).

4.9.3 Fair value hedges and the implications of credit valuation adjustments for hedge accounting

The counterparty default guidance in ASC 815 addresses the consideration of credit risk in both cash flow and fair value hedges.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Subsequent Measurement

Possibility of Default by the Counterparty to Hedging Derivative

815-20-35-16

In contrast, a change in the creditworthiness of the derivative instrument's counterparty in a fair value hedge would have an immediate effect because that change in creditworthiness would affect the change in the derivative instrument's fair value, which would immediately affect both of the following:

- a. The assessment of whether the relationship qualifies for hedge accounting
- b. The amount of mismatch between the change in the fair value of the hedging instrument and the hedged item attributable to the hedged risk recognized in earnings under fair value hedge accounting.

4.9.3.1 Effect on the assessment of whether a hedge is highly effective and qualifies for hedge accounting

The effect of changes in creditworthiness on hedge effectiveness is particularly notable in a fair value hedge because there is unlikely to be an offsetting change in fair value for the hedged item. In light of the guidance in ASC 820, we believe the above excerpt from the counterparty default guidance in ASC 815 is equally applicable to changes in the creditworthiness of the hedger, who is also a party to the derivative.

For fair value hedges, qualification for hedge accounting does not explicitly require an entity to evaluate whether performance under the terms of the derivative is "probable" on the part of the counterparty or itself in the same way that the counterparty default guidance in ASC 815 requires this evaluation for cash flow hedges. Instead, the requirement is more implicit because concerns about the creditworthiness of either party would be directly factored into the ASC 820-compliant valuation of the derivative.

In a "benchmark interest rate" hedge strategy that is commonly used by interest rate hedgers, the interest rate swap need only be highly effective at offsetting the changes in the fair value or cash flows of the underlying debt attributable to changes in the benchmark rate of interest (e.g., SOFR OIS or US Treasury). Such hedges do not attempt to hedge changes in fair value or cash flows attributable to the credit risk associated with the hedged debt. As such, credit risk is not an element in the evaluation of the hedged item, and there is no corresponding offset to any credit valuation adjustment applied to the hedging derivative.

Fair value hedges applying the shortcut method. Qualification for continued application of shortcut hedge accounting presumes that both interest rate swap counterparties are able to perform. However, once the requirements for use of the shortcut method are met (as listed in ASC 815-20-25-102 through 25-111), changes in the hedged item's fair value attributable to changes in the hedged item's credit risk are not required to be measured and recorded. Rather, the adjustment of the carrying value of the hedged asset or liability is assumed to equal the all-in fair value changes of the swap (including any amounts attributable to credit risk, i.e., nonperformance risk or counterparty risk).

ASC 815-20-25-111, which elaborates on the shortcut method, points out that comparable credit risk related to both parties to the interest rate swap and to the counterparty on a hedged interest-bearing asset is not considered to be a necessary condition to assume perfect effectiveness in a hedge of interest

rate risk. In doing so, the guidance acknowledges the fundamental conceptual difference between the “two-way” credit risk associated with a derivative contract and “one-way” credit risk associated with the interest-bearing asset that may constitute the “hedged item,” and permits this difference to be ignored if the other criteria for applying the shortcut method are satisfied. However, outside the application of the shortcut method, this fundamental conceptual difference, directly or indirectly, is a source of mismatch in the fair value hedging relationship.

See section 4.8.2 for a detailed discussion of the shortcut method.

4.9.3.2 Effect on the measurement of the hedged item in a fair value hedging relationship

For fair value hedges of financial assets or liabilities, ASC 815-20-25-12(f) permits entities to designate the following hedged risks: (1) changes in the overall fair value of the entire hedged item, (2) changes in fair value attributable to changes in the designated benchmark interest rate, (3) changes in fair value attributable to related foreign currency exchange rates, or (4) changes in fair value attributable to changes in the obligor’s creditworthiness. When the designated hedged risk is that of changes in the overall fair value of the entire hedged item, ASC 820 also applies to the hedged item and the nonperformance risk associated with it. If that hedged item is one of the hedger’s liabilities, then ASC 820 requires that the hedger’s/issuer’s own nonperformance risk be considered in its fair value as well.

When the designated hedged risk is *not* the overall fair value of the entire hedged item, such as a hedge of the risk of changes in the designated benchmark interest rate, ASC 820 does not have an effect on how the hedged item is valued since the measurement objective for these instruments is not fair value. Rather, ASC 820’s requirement to consider the nonperformance risk of both counterparties would apply *only* to the derivative.

4.9.4 Allocation of credit valuation adjustment from portfolio-level determination to individual derivatives for purposes of assessing hedge effectiveness of fair value hedges

ASC 820 provides a measurement exception (the portfolio approach) that permits an analysis of nonperformance risk of derivatives with the same counterparty on a portfolio basis, allowing the mitigating effect of credit support annexes and master netting agreements to have their full effect in the financial statements taken as a whole. The use of the measurement exception does not change the fact that the unit of account in ASC 815 is the individual derivative contract, a concept particularly important when an individual derivative is a hedging instrument in a formal hedging relationship.

In the spring of 2008, the SEC staff shared thoughts in a conference call with the major accounting firms and the Financial Executives Institute on issues that had been raised to the staff about how nonperformance risk should be allocated to the individual derivatives in a master netting arrangement for purposes of assessing fair value hedge effectiveness. The issue of allocating portfolio-level CVAs to individual derivatives is theoretically applicable to all derivatives, whether used in fair value hedges, cash flow hedges, net investment hedges or no hedging relationships. However, as explained earlier, earnings are most directly affected by changes in a derivative’s CVA when that derivative is in a non-shortcut fair value hedging relationship or when a derivative is not used in any hedging relationship. Accordingly, the discussion with the SEC staff focused on fair value hedges.

The SEC staff indicated that it would not necessarily object to the use of a qualitative approach to assess whether credit risk (once allocated) would materially affect the determination of hedge effectiveness of a fair value hedging relationship. If the reporting entity concludes through its qualitative assessment that any allocation of nonperformance risk is unlikely to affect its assessment of hedge effectiveness, it would not be required to allocate the effect of nonperformance risk to the individual derivative instruments.

If the reporting entity is unable to reach such a qualitative assessment of immateriality, it must allocate the effect of nonperformance risk to individual derivative instruments that are designated as hedges and must consider the allocated credit risk in evaluating fair value hedge effectiveness. Various quantitative allocation methods were discussed with the SEC staff and determined to be acceptable in the appropriate circumstances if consistently applied. Other methods may be used as long as a reporting entity can support that the method is appropriate for its facts and circumstances.

The following methods were discussed with the SEC staff:

- ▶ *Relative fair value approach* – an entity allocates a portion of the portfolio-level credit adjustment to each derivative asset and liability based on the relative fair value of each of the derivative instruments to the portfolio.
- ▶ *In-exchange or “full credit” approach* – an entity uses the derivative’s standalone fair value (in-exchange premise), which would take into account the credit standing of the parties and ignore the effect of the master netting arrangement. The benefit of this model is that it avoids the complexity of an allocation.
- ▶ *Relative credit adjustment approach* – an entity allocates a portion of the portfolio-level credit adjustment to each derivative asset and liability on the basis of the relative credit adjustment of each of the derivative instruments to the portfolio. This approach would require considering each instrument on a standalone basis in order to calculate a credit adjustment.
- ▶ *Marginal contribution approach* – an entity allocates a portion of the portfolio-level credit adjustment to each derivative asset and liability based on the marginal amount that each derivative asset or liability contributes to the portfolio-level credit adjustment.

Once allocated, the adjustment to the fair value of an individual derivative used in a fair value hedge must then be incorporated into the assessment of that hedge’s effectiveness. The SEC staff did not prescribe any specific methodology to do this, but stated it would not object to a methodology that layered in the effect of the credit risk adjustment on top of an already established methodology for fair value hedge effectiveness assessment. For example, the SEC staff would not necessarily require a methodology (such as regression) that was already in place to be recast to incorporate both the effect of the credit risk adjustment and all other sources that resulted in a mismatch between the hedging instrument and the hedged item. A separate methodology could be employed for credit risk and combined with the already existing methodology that addresses any other mismatches.

However, if an entity wanted to directly incorporate credit risk into its hedge effectiveness assessment methodology, such as regression, such an approach would also be acceptable.

4.9.5 Considerations when counterparties are in financial distress, including novation

Derivative counterparties in financial distress can present accounting challenges in applying the concepts in ASC 815. Financial distress can range from widening credit spreads (indicating market participants’ perception of the increased nonperformance risk of the counterparty) to the actual bankruptcy filing of a counterparty or an affiliated entity (i.e., the parent company of the counterparty).¹¹⁶ Entities in derivative relationships with distressed counterparties typically evaluate whether they should be terminating such derivative relationships either through negotiations with the distressed counterparties or because credit or other events that allow them to extend notice of termination have already occurred. In some cases, they discover that their derivative contracts have automatically terminated due to existing contractual provisions. Other entities find it economically undesirable to terminate their derivatives and explore such alternatives as novation or replacement of the counterparty to the contract.

¹¹⁶ The issues discussed in this section were particularly relevant after the bankruptcies and near bankruptcies of several financial institutions during 2008, and after the 2001 bankruptcy of Enron, a large multinational trader of non-exchange-traded electric power and natural gas contracts, and other over-the-counter contracts, including paper, coal and telecommunications fiber.

The legal structure of specific derivative counterparties can be complex. Entities in derivative agreements with distressed counterparties, with the assistance of legal counsel and other outside experts, should:

- ▶ Gain an understanding of the related agreements and the legal entities that are parties to such agreements
- ▶ Understand what settlement or other features may have been or could be triggered
- ▶ Assess credit risk associated with their counterparties

Importance of understanding contractual details of derivative contract/exact identity of counterparty. In assessing the appropriate accounting, it is critically important for affected entities to identify their specific counterparty and monitor their status and seek the advice of counsel for a complete understanding of the terms of their arrangements and any required actions under the arrangements. For example, in the event of bankruptcy, there are often entities that may be the legal counterparty to a derivative contract that did not file a Chapter 11 Voluntary Petition, even though a parent company and/or related entities did. Additional factors to consider include:

- ▶ Whether a bankruptcy filing by the counterparty is an event of default under the derivative contract
- ▶ The effect on a derivative agreement if the counterparty does not file for bankruptcy, but an entity named as a credit support provider or named in a similar role does

In addition, the bankruptcy filing of the parent could trigger a variety of actions, including continuation and termination structures. In a “continuation structure,” the derivative contract continues to exist, and a pre-identified separate unaffiliated entity provides credit support to the original counterparty. In a “termination structure,” the derivatives are mandatorily terminated upon the triggering event (e.g., bankruptcy filing of the parent), and formal notice of termination would be made.

Terminating the derivative contract. Once an entity decides to terminate its derivative contract, whether it be an election or mandated because of a credit event outlined in the contract, the contract’s fair value no longer changes with movements in its underlying. The contract is no longer accounted for at fair value under ASC 815 and should be evaluated as receivable or payable at “termination value” (the amount expected to be received or paid). Hedge accounting ceases at that point, assuming it did not already cease at an earlier period due to the application of the concepts in ASC 815-20-35-14 through 35-18 (the counterparty default guidance in ASC 815). See a later subsection for a discussion of determining an appropriate date for the cessation of hedge accounting in advance of actual termination of the derivative contract itself.

In scenarios such as bankruptcy in which the derivative is an asset and cannot be terminated at an amount that preserves the economic equivalent associated with the full remaining net contractual cash flows of the derivative (an amount ISDA describes as “market quotation”), entities would need to assess recoverability of this receivable in the same way they would assess any other receivable. That assessment will be affected by which particular entity that receivable is from (whether bankrupt or not). Entities may need additional information from their counterparty about its financial condition that may not otherwise be publicly available in order to report this receivable appropriately.

In situations in which the legal counterparty has not filed under Chapter 11 (although the parent company has), the “termination value” of the derivative may not necessarily reflect an adjustment for either the parent’s credit risk or the hedger’s nonperformance risk. Determining whether in each individual case the “termination value” includes or excludes a nonperformance risk adjustment will be a critical step in this process, and the answer may lie in the terms of the derivative contract itself. Either way, in the period leading up to the unexpected early termination, the derivative should have reflected a CVA that attempted to capture potential future exposure to each party’s nonperformance risk over the then-presumed longer life of the derivative, a notion consistent with ASC 820’s “exit value,” rather than “settlement value,” principle.

We believe that CVAs reflecting the full expected contractual life of the derivative are appropriate as long as ASC 815 and ASC 820 continue to govern the accounting. However, once a termination has been elected or mandated, the contract's life has been cut short and the underlying stops moving. Potential future exposure associated with a moving underlying no longer needs to be considered. As derivative accounting and fair value accounting cease, it may be appropriate to remove the CVA, depending on the legal definitions that are governing the contract's "termination value." Care should be exercised, however, because in some cases, the presence of the CVA may already contemplate nonperformance risk factors that a new counterparty would consider in making an offer to an entity to enter into a replacement derivative contract that begins in a liability position for the entity and a receivable position for the new counterparty.

Furthermore, it is important for each affected entity to understand the master netting arrangements in the event of a termination event. In some cases, derivative assets are included in master netting arrangements with even larger derivative liabilities. Such former derivative assets may be able to be fully "realized," even in bankruptcy, to the extent they can net down the payable due to the distressed counterparty. (There may be a delay in the ability to exercise such netting rights as the bankruptcy court works through the distributions; however, to the extent such rights are preserved and recognized by the court, the assets may be deemed to be fully realizable.)

Such netting ability in termination, as derivative accounting at fair value ceases and the entity is attempting to reflect its final "mark" on the contract based on "termination value" (perhaps following the protocol in its ISDA Master), may alleviate the need for any collectibility allowance on that asset based on applicable US GAAP. The determination of whether hedge accounting is appropriate up until the termination of the derivative contract will likely be influenced for each derivative by whether a client is in a "net pay" or "net receive" position in a master netting arrangement. For example, a net pay position may more easily support the application of hedge accounting for all the derivatives in the master netting arrangement through the termination date (that is, the net liability supports collectibility of the receivable assuming the netting arrangement is honored by the courts).

Determining the date of cessation of hedge accounting in advance of derivative contract termination.

As noted earlier in the discussion of ASC 815's counterparty default guidance, as market perceptions of nonperformance risk with respect to a counterparty to a derivative contract increase, such fair value deterioration could call into question the continued application of hedge accounting for those affected derivatives in formal hedging relationships. This evaluation could occur prior to the actual default event and/or termination of those derivatives but, in some cases, when deterioration is unexpected and rapid, could occur after the fact but effective as of an earlier date.

Consider a derivative in an asset position that terminates following a rapid decline in creditworthiness. The hedger would likely need to determine whether the decline in fair value of that asset invalidates the application of hedge accounting prior to termination, and if so, at which date it was last appropriate to apply hedge accounting. If the effect of the decline in creditworthiness indicates that a derivative is no longer highly effective, hedge accounting would be discontinued prospectively as required by ASC 815-25-40-1 through 40-3 or ASC 815-30-40-1 through 40-2. Importantly, however, the determination that a derivative is no longer highly effective as a hedge does not invalidate hedge accounting up until the point of such determination.

While not included in ASC 815, paragraph 489 of Statement 133 provided that hedge accounting should not be provided from the point at which the hedging derivative ceases to qualify, which could pre-date the point at which it ceases to be accounted for as a derivative under a termination scenario. Similarly, paragraph 490 of Statement 133 further provided that if the event or change in circumstances that caused the hedging relationship to cease to qualify cannot be identified, the entity is prohibited from applying hedge accounting after the date at which compliance was last assessed and satisfied. Since events such as credit downgrades, bankruptcy filings, and/or events of default may be easy to identify, entities may be able to identify the date that the hedging relationship ceased to qualify as highly effective. However, entities may need to pinpoint an earlier date.

In situations in which hedge accounting is lost prior to the actual termination of the derivative contract, we do not believe that it is imperative that a hedger identify the date of disqualification contemporaneously with the occurrence of the event that led to disqualification. In many circumstances, it may not be possible to pinpoint the date of loss of hedge accounting until some time has passed and hindsight can be applied.

How we see it

As a real-world example, the Enron deterioration happened entirely in the fourth quarter of 2001, between 15 October 2001 (the date of the third-quarter earnings release that led to the first signs of credit concerns) and 28 November 2001 (the date of major credit downgrades), but it could be difficult to determine the exact date within that 44-day period that the hedge was no longer highly effective prior to the derivative's termination. In such a case, we believe it would have been permissible to apply hedge accounting until 30 September 2001, and then cease thereafter. It would also have been permissible to attempt to pinpoint a date between 15 October (first sign of credit concerns) and 28 November (date default events likely outlined in the derivative contract occurred). However, it would have been inappropriate to continue hedge accounting until 31 December 2001. We believe an entity should clearly document the supporting rationale for the date on which it is determined the hedge is no longer highly effective, and that such rationale should be consistent with the entity's previously documented method for assessing hedge effectiveness. Note that this point applies equally to derivatives in asset positions and those in liability positions.

We believe that ASC 815 permits this determination to be made at the regularly scheduled hedge effectiveness assessment intervals (which, for example, might be at the end of a quarterly reporting period). Once the application of hindsight permits a past date to be identified as the date after which hedge accounting cannot be applied, the derivative should revert to "regular accounting" (change in fair value reported directly in the income statement) for changes in fair value of the derivative thereafter and through the end of the reporting period.

Previous balances deferred in AOCI from cash flow hedges would be reclassified to earnings as the hedged item affects earnings (i.e., not immediately) in accordance with ASC 815-30-35-38. These amounts, once deferred in AOCI, were permanently linked to the underlying forecasted transaction identified by the hedge designation documentation and cannot otherwise be removed from AOCI unless the forecasted transaction is considered probable of not occurring in accordance with ASC 815-30-40-5 through 40-6. The determination that a derivative is no longer highly effective as a hedge due to counterparty credit degradation or default does not invalidate hedge accounting up until the point of such determination, and accordingly, previous balances deferred in AOCI would be reclassified to earnings as the hedged item affects earnings (i.e., not immediately), just as if there had been no counterparty credit problem.

In a fair value hedging relationship, an adjustment of the carrying amount of a hedged asset, liability or firm commitment up to the point of such determination would remain a part of the carrying amount of that asset or liability and be accounted for in accordance with ASC 815-25-35-8 through 35-9A. For example, an adjustment of the carrying amount of a hedged asset held for sale (such as inventory) would remain part of the carrying amount of that asset until the asset is sold, at which point the entire carrying amount of the hedged asset would be recognized as the cost of the item sold in determining earnings. An adjustment of the carrying amount of a hedged interest-bearing financial instrument would be amortized to earnings beginning no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged (which date would coincide with the termination of hedge accounting).

4.9.5.1 Effect of novations on hedging relationships

A novation represents a change in one of the counterparties to a derivative contract. Novations may occur for various reasons, including financial institution mergers, a counterparty's decision to exit a derivatives business, intercompany transactions, an entity's desire to reduce the credit exposure to a particular counterparty or regulatory requirements (e.g., the requirement under the Dodd-Frank Wall Street Reform and Consumer Protection Act that many over-the-counter derivatives be centrally cleared). (Refer to section 8.13.3 for further discussion related to centrally cleared derivatives.)

A change in counterparty of a derivative contract in a hedge accounting relationship does not, in and of itself, require dedesignation of the hedging relationship. In reaching that conclusion, the EITF, which developed the guidance,¹¹⁷ noted that the analysis of whether a derivative instrument has been "terminated" in the context of hedge accounting was intended to go beyond a legal determination to focus on whether the hedging relationship itself would continue to exist. When the only change to a derivative contract designated in a hedging relationship is the counterparty, and there are no concerns about the collectibility of the derivative's cash flows or effectiveness of the hedging relationship, the EITF observed that the hedging relationship is largely unaffected, and a "termination" of the derivative instrument (as that term is used in ASC 815) should not be deemed to have occurred.

The EITF also noted that ASC 815 does not refer to the counterparty in a derivative contract as a "critical term." Instead, it refers to terms that affect the amount and timing of contractual cash flows as critical terms. Changes in terms that do not affect the contractual cash flows in a derivative contract but may affect the probability of performance of these contractual terms are required to be evaluated under the counterparty default guidance in ASC 815.¹¹⁸ As such, a change in counterparty would only result in the dedesignation of a hedging relationship if the hedge is no longer expected to be highly effective due to the creditworthiness of the new counterparty. The EITF noted that the evaluation of counterparty default risk (as discussed in sections 4.9.2 and 4.9.3 above) applies to all hedging relationships, regardless of whether there has been a change in counterparty.

The EITF observed that novations generally require the consent of the other party to the derivative, and that party is unlikely to agree to a novation to a counterparty that is significantly less creditworthy without receiving consideration. However, the guidance does not address situations in which cash or other consideration is exchanged as a result of a novation. In these cases, a dedesignation of the original hedging relationship may be required.

¹¹⁷ ASU 2016-05, *Derivatives and Hedging (Topic 815): Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships* (a consensus of the Emerging Issues Task Force).

¹¹⁸ ASC 815-20-35-14 through 35-18.

5 Fair value hedges

5.1 What is a fair value hedge?

Excerpt from Accounting Standards Codification

Master Glossary

Fair Value Hedge

A hedge of the exposure to changes in the fair value of a recognized asset or liability, or of an unrecognized firm commitment, that are attributable to a particular risk.

Fair value hedges protect existing assets, liabilities and firm commitments against changes in fair value. The exposure to changes in fair value can result from a variety of causes including holding a commodity, being committed to purchase or sell something on predetermined terms or issuing or holding a financial instrument that has a fixed interest rate and maturity. Except for foreign currency fair value hedges, which are discussed in chapter 7, the derivative in a fair value hedge will unlock a price, rate or index that would otherwise be fixed or locked from the entity's income statement perspective.¹¹⁹ Once the derivative unlocks the fixed terms, the entity's income statement benefits from favorable changes in the price, rate or index. However, because of the unlocking of the fixed terms, the entity's earnings may also be exposed to unfavorable changes.

As an example, an entity with fixed-rate debt enters into an interest rate swap to receive a fixed rate of interest and pay a variable rate to protect against a scenario in which the entity would be required to pay a premium if it decided to extinguish its debt prior to maturity if interest rates decline. Similarly, if rates increase, the entity would have a gain upon early extinguishment of its debt. The presence of an interest rate swap would offset such a gain or loss. Note that this discussion focuses on the fair value of the debt. This focus taken by ASC 815 is often different from that of most entities, which in this situation are usually focused on the interest cash flows each period rather than the value of the debt in the event of a hypothetical extinguishment.

As another example, a refinery, concerned that crude prices may fall while it is firmly committed under a purchase contract to buy one million barrels of crude oil at a fixed price in the future, would sell a crude oil futures contract. If prices decrease, the entity will be contractually obligated to pay an above-market price under its purchase contract but would realize a gain in the value of its futures contract that effectively reimburses the entity as if it had purchased the crude at the lower hedged market price. However, if crude oil prices increase, the loss on the futures contract will result in the refinery paying an effective cost over and above the fixed purchase contract price.

In both of the above examples, the entities' future cash flows to pay interest and buy crude oil, respectively, were fixed. The derivatives effectively unlocked the fixed terms of both the fixed-rate debt and the firm purchase commitment to buy crude oil and exposed the entities' earnings to subsequent favorable and unfavorable changes in value of the hedged items attributable to changes in interest rates and market prices, respectively.

¹¹⁹ Fair value hedges of firm commitments denominated in a foreign currency, discussed in chapter 7, actually lock in an exchange rate rather than unlock the exchange rate. However, the purpose of locking in the exchange rate is to protect the entity while it is "locked" into some other cost, price, rate or index, such as a contract to purchase a fixed quantity of inventory at a fixed price denominated in a foreign currency. Because the entity cannot avoid the fixed price, it is exposed to changes in the foreign currency exchange rate. Thus, even in this hedging relationship, the derivative is protecting the entity from fixed prices, costs, rates or indexes.

Examples of fair value hedges of assets work similarly. An entity that owns inventory could enter into a fair value hedge to protect the value of its inventory on hand, and an entity that has an investment in an available-for-sale fixed-rate debt instrument could enter into an interest rate swap to synthetically convert the fixed-rate debt instrument to a variable-rate debt instrument.

Fair value hedges protect against exposures to changes in the fair value of a recognized asset (e.g., inventory, fixed-rate notes receivable, fixed-rate bond), liability (e.g., fixed-rate debt issuance), or unrecognized firm commitment.

How we see it

As will be discussed further in chapter 6, the fact that an entity would be locked into a fixed price, cost, rate or index absent the hedge is what distinguishes fair value hedges from cash flow hedges. Identifying whether the entity is locked into a fixed exposure is an important step in determining whether the derivative represents a fair value hedge or a cash flow hedge. This distinction is important because the accounting for each type of hedge is different.

5.1.1

Firm commitments

ASC 815 defines a firm commitment as an agreement with an unrelated party, binding on both parties, and usually legally enforceable, with the following characteristics:

- ▶ The agreement specifies all significant terms, including the quantity to be exchanged, the fixed price and the timing of the transaction. The fixed price may be expressed as a specified amount of an entity's functional currency or of a foreign currency (refer to chapter 7 for further discussion of foreign-currency-denominated firm commitments). It may also be expressed as a specified interest rate or specified effective yield.
- ▶ The agreement includes a disincentive for nonperformance that is sufficiently large to make performance probable.

If the contract price is not fixed (e.g., a commitment to buy at market price), the contract does not meet the definition of a firm commitment. Similarly, if the agreement does not specify the quantity to be delivered or the delivery date, it does not meet the definition. Such an arrangement might, however, qualify to be hedged as a "forecasted transaction" under the cash flow hedge model.

With respect to the requirement that the agreement include a "disincentive for nonperformance that is sufficiently large to make performance probable," ASC 815-25-55-84 clarifies that this requirement would be met if the legal jurisdiction that governs the agreement provides statutory remedies for default equivalent to the damages suffered by the non-defaulting party, even though the agreement itself includes no explicit monetary penalty for nonperformance.

Illustration 5-1: Firm commitment examples

Examples of contractual commitments satisfying the definition of a firm commitment include:

- ▶ A commodity purchase agreement that provides for a *fixed* quantity to be delivered at a *fixed* price with *specified* timing
- ▶ A contract for the purchase of equipment on a specified delivery date at a *fixed* price denominated in a foreign currency (In this case, the exchange rate is not fixed, but the foreign currency amount is.)
- ▶ A license or royalty agreement that provides for *fixed* periodic payments at specific time intervals (A license or royalty agreement that specifies a unit price but does not include a minimum or fixed quantity would not meet the definition of a firm commitment even though future sales that will result in the royalty payments are probable. It may, however, qualify as a forecasted transaction as discussed in chapter 6.)

ASC 815 includes an example¹²⁰ illustrating that a supply contract for which the contract price is fixed only under certain circumstances (such as when market prices are above an embedded price cap) meets the definition of a firm commitment for purposes of designating the hedged item in a fair value hedge. Therefore, when the selling price in a supply contract is subject to a cap, a floor or both, either party to the contract is eligible to apply fair value hedge accounting in a hedging relationship to hedge the fair value exposure of the cap or floor. The embedded price cap is a specific portion of the supply contract that is subject to the risk of changes in fair value due to changes in the list price of the underlying materials. It does not warrant separate accounting under ASC 815 because it is clearly and closely related to the host supply contract. Since it is not accounted for separately from the supply contract, the embedded price cap may be designated as the hedged item in a fair value hedge.

Intercompany contracts do not qualify under the definition as firm commitments because they are with related parties. However, many intercompany contracts can be hedged for foreign exchange risk if certain criteria are met (refer to chapter 7 for further discussion).

How we see it

In many cases, a firm commitment can itself be a derivative. For example, a forward contract to purchase oil at a specified price at a specified date would be a firm commitment (i.e., fixed-price contract) and could also meet the definition of a derivative (e.g., because the oil specified in the contract is readily convertible to cash). If a contract meets the definition of both a derivative instrument and a firm commitment under ASC 815, the entity must account for the contract as a derivative instrument, unless one of the exceptions in ASC 815 applies (e.g., NPNS). However, if the contract is treated as a derivative, it would be eligible to be designated as a hedging instrument for the forecasted purchase or sale that will result from the firm commitment. This is referred to as an “all-in-one” hedge and is discussed further in chapter 6.

5.1.1.1

Amended firm commitments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Derecognition

Hedged Item No Longer Meets Definition of Firm Commitment

815-25-40-5

If a fair value hedge of a **firm commitment** is discontinued because the hedged item no longer meets the definition of a firm commitment, the entity shall do both of the following:

- a. Derecognize any asset or liability previously recognized pursuant to paragraph 815-25-35-1(b) (because of an adjustment to the carrying amount for the firm commitment)
- b. Recognize a corresponding loss or gain currently in earnings.

815-25-40-6

A pattern of discontinuing hedge accounting and derecognizing firm commitments would call into question the firmness of future hedged firm commitments and the entity’s accounting for future hedges of firm commitments.

¹²⁰ ASC 815-20-55-84 through 55-87, Example 3: Firm Commitment as Hedged Item in Relation to Long-Term Supply Contracts with Embedded Price Caps or Floors.

Agreements that are considered firm commitments (because they are with an unrelated party, are binding on both parties, are usually legally enforceable and involve future transactions for which all the terms are fixed) are occasionally amended or canceled. If the hedged item no longer meets the definition of a firm commitment, the entity must derecognize any asset or liability that was previously recognized through earnings in accordance with the fair value hedge accounting model and record a gain or loss for such amount. Unlike other fair value hedges, there is not an asset or a liability that continues when a firm commitment is terminated. Therefore, it would be inappropriate to continue to carry on the balance sheet an asset or liability that may have arisen from the application of hedge accounting in anticipation of a future asset or liability. Similar to other non-hedge accounting situations, the derivative continues to be carried at fair value, but future changes in value are recorded in the income statement without offset.

How we see it

ASC 815 indicates that if a firm commitment is amended or terminated, this implies that the commitment was not firm in the first place. However, we believe entities can amend the terms of a firm commitment slightly without having to discontinue hedge accounting, provided that the terms are amended in such a way that the new terms are fixed, and the derivative is still highly effective from the original designation date.

For example, if the terms of a three-year contract are amended to postpone a delivery date by one month, the contract is still a firm commitment, and therefore we believe is still eligible to be hedged, even though the derivative will expire one month before the new delivery date. However, if the price in a contract that was fixed is changed to a floating price tied to an index, the contract no longer qualifies as a firm commitment, and the previous accounting for the hedged item must be unwound.

Entities can also lose hedge accounting by amending the terms of firm commitments that are directly related to the underlying if the amendment causes the hedge to not qualify as highly effective from its original inception.

For example, if the parties agree six months into a contract to reset the fixed price to today's market price, the changes in the fair value of the firm commitment over the past six months would be equal to zero, as if there had been no change in market price. However, since the fair value of the derivative would have changed over the last six months, the change in the derivative would not offset the change in the hedged item, and the hedge would not be highly effective. As a result, all of the adjustments made to the hedged item during the initial six months would be reversed at the time the contract is amended and recognized in earnings as a gain or loss. However, the entity could redesignate the derivative as a hedge on the date of the amendment as long as it was deemed to be highly effective as a hedge from that point forward.

5.2

Recognition and presentation of fair value hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Changes in Fair Value in General

815-25-35-1

Gains and losses on a qualifying **fair value hedge** shall be accounted for as follows:

- a. The gain or loss on the hedging instrument shall be recognized currently in earnings, except for amounts excluded from the assessment of effectiveness that are recognized in earnings through an amortization approach in accordance with paragraph 815-20-25-83A. All amounts recognized in earnings shall be presented in the same income statement line item as the earnings effect of the hedged item.

- b. The gain or loss (that is, the change in **fair value**) on the hedged item attributable to the hedged risk shall adjust the carrying amount of the hedged item and be recognized currently in earnings.

Pending Content:

Transition Date: (P) December 16, 2022; (N) December 16, 2023 | **Transition Guidance:** 815-20-65-6

815-25-35-1

Gains and losses on a qualifying **fair value hedge** shall be accounted for as follows:

- a. The gain or loss on the hedging instrument shall be recognized currently in earnings, except for amounts excluded from the assessment of effectiveness that are recognized in earnings through an amortization approach in accordance with paragraph 815-20-25-83A. All amounts recognized in earnings shall be presented in the same income statement line item as the earnings effect of the hedged item.
- b. The gain or loss (that is, the change in **fair value**) on the hedged item attributable to the hedged risk shall adjust the carrying amount of the hedged item and be recognized currently in earnings except as described in (c).
- c. For one or more existing **hedged layer** or layers that are designated under the portfolio layer method in accordance with paragraph 815-20-25-12A, the gain or loss (that is, the change in fair value) on the hedged item attributable to the hedged risk shall not adjust the carrying value of the individual beneficial interest or individual assets in or removed from the closed portfolio. Instead, that amount shall be maintained on a closed portfolio basis and recognized currently in earnings.

Changes in Fair Value of Hedged Item

815-25-35-8

The adjustment of the carrying amount of a hedged asset or liability required by paragraph 815-25-35-1(b) shall be accounted for in the same manner as other components of the carrying amount of that asset or liability. For example, an adjustment of the carrying amount of a hedged asset held for sale (such as inventory) would remain part of the carrying amount of that asset until the asset is sold, at which point the entire carrying amount of the hedged asset would be recognized as the cost of the item sold in determining earnings.

815-25-35-9

An adjustment of the carrying amount of a hedged interest-bearing **financial instrument** shall be amortized to earnings. Amortization shall begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

815-25-35-9A

If, as permitted by paragraph 815-25-35-9, an entity amortizes the adjustment to the carrying amount of the hedged item during an outstanding partial-term hedge of an interest-bearing **financial instrument**, the entity shall fully amortize that adjustment by the hedged item's assumed maturity date in accordance with paragraph 815-25-35-13B. For a discontinued hedging relationship, all remaining adjustments to the carrying amount of the hedged item shall be amortized over a period that is consistent with the amortization of other discounts or premiums associated with the hedged item in accordance with other Topics (for example, Subtopic 310-20 on receivables—nonrefundable fees and other costs).

Pending Content:

Transition Date: (P) December 16, 2022; (N) December 16, 2023 | **Transition Guidance:** 815-20-65-6

815-25-35-9

An adjustment of the carrying amount of a hedged interest-bearing **financial instrument** that is required by paragraph 815-25-35-1(b) and an adjustment that is maintained on a closed portfolio basis in a portfolio layer method hedge in accordance with paragraph 815-25-35-1(c) shall be amortized to earnings. Amortization shall begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

815-25-35-9A

If, as permitted by paragraph 815-25-35-9, an entity amortizes the adjustment to the carrying amount of the hedged item during an existing partial-term hedge of an interest-bearing **financial instrument** or amortizes the basis adjustment in an existing portfolio layer method hedge, the entity shall fully amortize that adjustment by the hedged item's assumed maturity date in accordance with paragraph 815-25-35-13B. For a discontinued hedging relationship, all remaining adjustments to the carrying amount of the hedged item shall be amortized over a period that is consistent with the amortization of other discounts or premiums associated with the hedged item in accordance with other Topics (for example, Subtopic 310-20 on receivables—nonrefundable fees and other costs). See paragraphs 815-25-40-9 through 40-9A for further guidance on accounting for a basis adjustment attributable to a discontinued portfolio layer method hedge.

815-25-35-14

Amounts recorded in an entity's income statement as interest costs shall be reflected in the capitalization rate under Subtopic 835-20. Those amounts could include amortization of the adjustments of the carrying amount of the hedged liability, under paragraphs 815-25-35-9 through 35-9A, if an entity elects to begin amortization of those adjustments during the period in which interest is eligible for capitalization.

ASC 815 requires entities to recognize in income, in the period that the changes in fair value occur, gains or losses from a derivative designated as a fair value hedge (related to those components included in the assessment of hedge effectiveness). (Refer to section 5.2.1 below for discussion on the treatment of changes in the fair value of the derivative that are excluded from the assessment of hedge effectiveness). In addition, changes in the fair value of the hedged item (i.e., the asset, liability or firm commitment) attributable to the risk designated as being hedged are simultaneously recognized in income as an adjustment to the carrying amount of that hedged item.

This feature of fair value hedge accounting effectively overrides the traditional balance sheet accounting for numerous assets and liabilities to accomplish the FASB's fundamental objective of recording derivatives as assets or liabilities on the balance sheet at fair value, while still preserving the ability of an entity to demonstrate the hedge results in the income statement.

Illustration 5-2: Fair value hedge accounting examples

Examples of the balance sheet accounting under ASC 815 include:

- ▶ A firm commitment that is prohibited by a specific accounting standard from being recognized as an asset or liability on the balance sheet (e.g., an unrecognized mortgage servicing right) may be designated as the hedged item in a fair value hedge. ASC 815 effectively overrides other accounting standards if the firm commitment is hedged (or if the firm commitment meets the definition of a derivative), because ASC 815 requires that the change in fair value of a firm commitment attributable to the risk being hedged be recognized on the balance sheet.
- ▶ Inventory that is normally carried at the lower of cost and net realizable value¹²¹ on the balance sheet when it is not hedged will have its carrying value begin to be adjusted once it is designated as a hedged item in a fair value hedge. Changes in the fair value of the inventory will begin to be reflected in income as the derivative hedging the inventory changes in value.
- ▶ Available-for-sale debt securities, if not hedged, are carried at fair value, with changes in fair value reflected on the balance sheet in AOCI (net of related taxes). But if the available-for-sale debt security is designated as a hedged item in a fair value hedge, the changes in its fair value attributable to the risk being hedged will be reflected in the income statement – not AOCI – for as long as hedge accounting is applicable.
- ▶ Held-to-maturity debt securities are normally carried at amortized cost on the balance sheet. Although hedges of interest rate risk are not permitted, a held-to-maturity debt security can be hedged for credit risk in a fair value hedge. In these cases, the carrying value of the held-to-maturity debt security is adjusted for changes in its fair value attributable solely to changes in the issuer's credit risk (e.g., credit downgrades and upgrades).

Note, however, that as a consequence of this accounting, the gain or loss from any mismatch in the hedging relationship is immediately reflected in the income statement line item(s) being hedged. This is because all changes in the fair value of the hedging instrument included in the assessment of hedge effectiveness are required to be presented in the same income statement line item as the earnings effect of the hedged item.

For example, unless the shortcut method is applied, changes in the fair value of the hedging instrument attributable to a change in the creditworthiness of either counterparty would generally have an immediate effect on earnings because there is unlikely to be an offsetting change in fair value for the hedged item (refer to further discussion in section 4.9). Amounts excluded from the assessment of hedge effectiveness will also affect the income statement line item where the hedged item is reported as discussed further in section 5.2.1 below.

An unrealized gain or loss on a hedged asset or liability¹²² that existed prior to the establishment of the hedge would not be recognized in earnings at the time the hedge is entered into. The adjustment to the hedged item is not a cumulative catch-up type adjustment to fair value. Only the change in fair value subsequent to entering the hedge is recognized. Further, only changes in the fair value of a hedged item during the life of the hedge that are attributable to the risk being hedged are recognized. Given these two factors, the hedged item's carrying amount on the balance sheet will usually not equal its fair value at a

¹²¹ Inventory measured using any method other than last-in, first-out (LIFO) or the retail inventory method (e.g., first-in, first-out (FIFO), average cost) is subsequently measured at the lower of cost and net realizable value. Inventory measured using LIFO is subsequently measured at the lower of cost or market.

¹²² Prior to the establishment of the hedge, the fair value of a firm commitment is prohibited from being recognized as an asset or liability on the balance sheet.

given point in time. For example, assume that a fixed-rate bond classified as held-to-maturity is effectively hedged for changes in fair value due to credit risk. That bond may decrease in value due to a credit downgrade even though its overall fair value increases because interest rates decline. Under the fair value hedge model, the carrying amount of the bond would be adjusted downward even though the bond's overall fair value increased. The derivative would provide a gain to offset the decrease in value of the bond due to credit risk.

How we see it

The application of fair value hedge accounting can result in certain valuation complexities. For example, entities need to separate the changes in fair value of the hedged item associated with the hedged risk (e.g., interest rate risk) from other changes in fair value (e.g., credit risk). Under ASC 815, the hedged item is adjusted only for changes in fair value attributable to the risk being hedged; therefore, the valuation of the separate components becomes critical in applying ASC 815.

In addition, the fact that only changes in value of a hedged item attributable to particular risks are recorded can cause some interesting results, such as assets with credit balances or carrying values that trigger lower of cost and net realizable value or impairment adjustments that otherwise would not be triggered. For example, on 1 January 20X0, assume ABC Company has inventory recorded at a cost of \$80,000. Inventory is recorded at the lower of cost and net realizable value. Inventory has significantly appreciated, and its fair value is \$120,000. ABC Company enters into a forward contract to hedge the fair value of its inventory. Subsequently, the fair value of the inventory deteriorates to \$20,000.

At such time, ABC Company would have a gain on the forward contract of \$100,000 recorded as an asset with an offsetting credit to current earnings (i.e., cost of goods sold). However, the inventory that is hedged, which was on the books at its cost of \$80,000, would also have to be adjusted through earnings to reflect the changes in its fair value from the date of the hedge. That adjustment would also be reported in cost of goods sold. Thus, inventory would be recorded at a credit balance of (\$20,000), which reflects the \$100,000 change in value of the inventory since 1 January 20X0.

To illustrate another example, assume XYZ Company has a fixed-rate debt obligation. Six months after entering into the debt arrangement, XYZ Company hedges the interest rate risk of the obligation with a receive-fixed, pay-floating interest rate swap. Beginning on the date that the hedging relationship is designated, XYZ Company would adjust the carrying value of the obligation for changes in fair value solely due to fluctuations in the designated benchmark interest rate. However, the carrying value of the debt obligation would not equal its fair value for two reasons. First, changes in fair value that occurred during the six months the obligation was not hedged would not be recognized. Second, after the hedging relationship was in place, the obligation's fair value may be affected by risks that are not hedged (e.g., changes in XYZ Company's credit rating). The debt obligation is only adjusted for changes in its fair value due to changes in the benchmark interest rate from the date the hedge was designated.

Adjustments to the carrying amounts of hedged items that are recorded as a result of a fair value hedging relationship are subsequently accounted for in a manner consistent with any other adjustment of the carrying amount of the asset or liability. (Refer to sections 5.3.4 and 5.3.4A below for discussion on the treatment of the fair value basis adjustment in hedges where the last-of-layer method or portfolio layer method is applied.) When the underlying assets are purchased in accordance with the terms of a firm commitment that has been hedged, the initial cost basis in the acquired assets is adjusted by the amount of the firm commitment that was recorded as an asset or liability under the fair value hedging model. For example, if the hedged item is a firm commitment to purchase a commodity that will be used in a manufacturing process, the fair value basis adjustments to the carrying amount of the firm commitment as a result of the fair value hedging relationship will be included in inventory as would any other

component of the cost of the commodity. The aggregate carrying value (cost plus or minus the fair value hedge basis adjustment) would be subject to the lower of cost and net realizable value assessment. Furthermore, the amount will be included in the determination of cost of goods sold in accordance with the entity's inventory costing method.

If the hedged item is a fixed-rate financial instrument, the fair value hedge basis adjustments to the instrument's carrying amount will be treated as adjustments to the contractual interest rate provisions and amortized as a yield adjustment of the hedged item in accordance with ASC 310-20. To simplify the mechanics of hedge accounting, ASC 815 indicates that amortization of the resulting adjustments of hedged financial instruments is not required to begin until the hedge is removed.¹²³

ASC 835-20 requires capitalizing interest as part of the historical cost of acquiring certain assets (e.g., assets that are constructed for an entity's own use) under the premise that the historical cost of the asset should capture the costs (including financing costs) incurred to bring the asset to the condition and location necessary for its intended use. When interest is capitalized on debt that is the hedged item in a fair value hedge, the amount of interest to be capitalized is affected by the mechanics of hedge accounting.

ASC 815-25-35-14 states that amounts recorded in an entity's income statement as interest costs must be reflected in the capitalization rate under ASC 835-20, if applicable, and that these amounts could include amortization of the fair value hedge adjustments on the hedged debt, if an entity elects to begin amortization of those adjustments during the period in which interest is eligible for capitalization.

In addition, any mismatch between the change in the fair value of the hedged item attributable to the hedged risk and the change in the fair value of the hedging instrument included in the assessment of effectiveness would be considered in determining the interest to be capitalized.

Before the adoption of ASU 2017-12, an entity could only consider the effective portion of the hedge in determining the amount to be capitalized. However, because ASU 2017-12 eliminated the requirement to separately measure and report hedge ineffectiveness, the Board determined that any mismatch between the hedged item and hedging instrument should be included in the amount of interest to be capitalized. When hedge accounting is not applied, no amounts related to the derivative can be included in the calculation of capitalized interest.

The accounting treatment for the hedged item in a fair value hedge represents an even more radical change for hedges of firm commitments than it does for hedges of existing assets or liabilities. Fair value hedges of assets or liabilities result in fair value adjustments to amounts that already exist on the balance sheet. However, fair value hedges of firm commitments cause an asset or liability to be recorded that had previously not been recognized under US GAAP. Under ASC 815, in addition to recognizing the change in fair value of the derivative, entities also recognize as assets or liabilities the changes in the fair value of the firm commitment that are attributable to the risk being hedged and that arise while the hedge of the firm commitment exists. Again, ASC 815 creates this asset or liability for only the period the commitment is hedged. Thus, if the hedge is entered into subsequent to entering into the firm commitment, the recorded asset or liability for the firm commitment may not equal the actual fair value of the commitment.

¹²³ Note that in a perfectly effective hedging relationship, as illustrated in Example 3 in section 5.5. below, amortization is not required, provided that the hedge is not discontinued prior to the maturity of the hedging instrument. As the swap moves closer to maturity, its fair value will approach zero (as there are fewer cash flows to discount and a shorter period over which to discount). Accordingly, the cumulative fair value basis adjustment to the debt will also converge to zero given that the hedge is perfectly effective. However, if the hedge designation is removed prior to the expiration of the hedging instrument, effective-yield amortization of the adjustments to the carrying amount of the hedged item will be required.

The following example illustrates the accounting for firm commitments.

Illustration 5-3: Accounting for a fair value hedge of a firm commitment

On 1 January 20X1, a Kansas flour mill enters into a six-month forward purchase contract for the purchase of 10,000 bushels of wheat at \$3.50/bushel (the market price on that date for forward delivery) to be delivered on 1 July 20X1. The wheat will be used in the mill to make flour. Assume that the forward contract to purchase wheat represents a firm commitment that also meets the definition of a derivative. However, the contract is not accounted for as a derivative because it meets the NPNS scope exception criteria discussed in section 2.5.2, and the flour mill has elected to apply this exception.

On 31 March 20X1, the market price for wheat (for forward delivery in Kansas on 1 July) is \$3.35. The price has fallen based on expectations of a bumper wheat harvest. At that time, mill management becomes concerned that the price will fall even further and that it will be forced to reduce the price of flour in response to competitive pressures. Accordingly, it enters into a commodity swap for one-half of its commitment whereby it will receive \$3.35 on 5,000 bushels and pay the Kansas market price on 30 June 20X1.

On 1 July 20X1, the market price is \$3.25. Assuming there is no remaining nonperformance risk as performance is imminent, the derivative's fair value would represent a \$500 asset (\$0.10 difference between the price of wheat in the derivative contract and the current market price of wheat times 5,000 bushels). In addition, the fair value of the firm commitment due to a change in the price of wheat has declined by the same \$500. Under ASC 815, the firm commitment would be carried as a \$500 liability. Note that the \$0.15/bushel change in the fair value prior to the hedge was ignored, as was the change in fair value of the unhedged portion of the firm commitment (the unhedged 5,000 bushels under the contract). Only the change in price, from 31 March to 1 July 20X1, on the 5,000 hedged bushels was recognized for the firm commitment.

5.2.1 Excluded components

As discussed in section 4.8.3.5, ASC 815 permits entities to exclude a portion of the change in the hedging instrument's fair value (attributable to time value and/or cross-currency basis spread) from the assessment of hedge effectiveness. The base recognition model for excluded components is an amortization approach, whereby the initial value of the excluded component is recognized in earnings using a systematic and rational method over the life of the hedging instrument. Any difference between the change in the fair value of the excluded component during the period and the amount amortized into earnings during the period under the systematic and rational method is recorded in OCI. Alternatively, an entity may elect to recognize the entire change in the fair value of any excluded components immediately in earnings.¹²⁴

Regardless of the approach used, ASC 815 requires all changes in the fair value of a hedging instrument in a fair value hedge (including changes in the fair value of any excluded components) to be presented in the same income statement line item as the earnings effect of the hedged item.

If a fair value hedging relationship is discontinued, any amounts remaining in AOCI are not immediately recognized in earnings. Instead, they are recognized in earnings in the same manner as other components of the carrying amount of the hedged asset or liability (i.e., consistent with treatment of the basis adjustment in a discontinued fair value hedge). However, if the hedged item is derecognized, any remaining amounts in AOCI would be recorded in earnings immediately. (Refer to section 5.4 for further discussion on the discontinuation of a fair value hedge.)

¹²⁴ The decision to immediately recognize the change in fair value of any excluded components in earnings is a policy election that must be applied consistently to similar hedges in accordance with ASC 815-20-25-81.

How we see it

Historically, OCI has not been used when accounting for fair value hedging relationships. However, entities that apply the amortization approach provided by ASU 2017-12 to recognize the change in the fair value of components excluded from the assessment of hedge effectiveness in fair value hedges will defer certain amounts in OCI.

Because derivatives are required to be measured on the balance sheet at fair value, the Board's decision to no longer require changes in the fair value of excluded components to be recorded immediately in earnings resulted in the need to "park" these changes somewhere. Recording these changes in OCI for fair value hedges makes the amortization model for excluded components consistent for all types of hedging relationships.

5.2.2

Impairment (and lower of cost or market)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Impairment of Hedged Item

815-25-35-10

An asset or liability that has been designated as being hedged and accounted for pursuant to this Section remains subject to the applicable requirements in generally accepted accounting principles (GAAP) for assessing impairment for that type of asset or for recognizing an increased obligation for that type of liability. Those impairment requirements shall be applied after hedge accounting has been applied for the period and the carrying amount of the hedged asset or liability has been adjusted pursuant to paragraph 815-25-35-1(b). Because the hedging instrument is recognized separately as an asset or liability, its fair value or expected cash flows shall not be considered in applying those impairment requirements to the hedged asset or liability.

Interaction with Loan Impairment

815-25-35-11

This Subtopic implicitly affects the measurement of impairment under Section 310-10-35 by requiring the present value of expected future cash flows to be discounted by the new effective rate based on the adjusted **recorded investment** in a hedged loan. Paragraph 310-10-35-31 requires that, when the recorded investment of a loan has been adjusted under fair value hedge accounting, the effective rate is the discount rate that equates the present value of the loan's future cash flows with that adjusted recorded investment. That paragraph states that the adjustment under fair value hedge accounting of the loan's carrying amount for changes in fair value attributable to the hedged risk under this Subtopic shall be considered to be an adjustment of the loan's recorded investment. As discussed in that paragraph, the loan's original effective interest rate becomes irrelevant once the recorded amount of the loan is adjusted for any changes in its fair value. Because paragraph 815-25-35-10 requires that the loan's carrying amount be adjusted for hedge accounting before the impairment requirements of Subtopic 310-10 are applied, this Subtopic implicitly supports using the new effective rate and the adjusted recorded investment.

815-25-35-12

This guidance applies to all entities applying Subtopic 310-10 to financial assets that are hedged items in a fair value hedge, regardless whether those entities have delayed amortizing to earnings the adjustments of the loan's carrying amount arising from fair value hedge accounting until the hedging relationship is dedesignated. The guidance on recalculating the effective rate is not intended to be applied to all other circumstances that result in an adjustment of a loan's carrying amount.

Pending Content:

Transition Date: (P) December 16, 2019; (N) December 16, 2022 | **Transition Guidance:** 326-10-65-1

Impairment or Credit Losses of Hedged Item**815-25-35-10**

An asset or liability that has been designated as being hedged and accounted for pursuant to this Section remains subject to the applicable requirements in generally accepted accounting principles (GAAP) for assessing impairment or credit losses for that type of asset or for recognizing an increased obligation for that type of liability. Those impairment or credit loss requirements shall be applied after hedge accounting has been applied for the period and the carrying amount of the hedged asset or liability has been adjusted pursuant to paragraph 815-25-35-1(b). Because the hedging instrument is recognized separately as an asset or liability, its fair value or expected cash flows shall not be considered in applying those impairment or credit loss requirements to the hedged asset or liability.

Interaction with Loan Impairment**815-25-35-11**

This Subtopic implicitly affects the measurement of credit losses under Subtopic 326-20 on financial instruments measured at amortized cost by requiring the present value of expected future cash flows to be discounted by the new effective rate based on the adjusted amortized cost basis in a hedged loan. Paragraph 326-20-55-9 requires that, when the amortized cost basis of a loan has been adjusted under fair value hedge accounting, the effective rate is the discount rate that equates the present value of the loan's future cash flows with that adjusted amortized cost basis. That paragraph states that the adjustment under fair value hedge accounting for changes in fair value attributable to the hedged risk under this Subtopic shall be considered to be an adjustment of the loan's amortized cost basis. As discussed in that paragraph, the loan's original effective interest rate becomes irrelevant once the recorded amount of the loan is adjusted for any changes in its fair value. Because paragraph 815-25-35-10 requires that the loan's amortized cost basis be adjusted for hedge accounting before the requirements of Subtopic 326-20 are applied, this Subtopic implicitly supports using the new effective rate and the adjusted amortized cost basis.

815-25-35-12

This guidance applies to all entities applying Subtopic 326-20 to financial assets that are hedged items in a fair value hedge, regardless of whether those entities have delayed amortizing to earnings the adjustments of the loan's amortized cost basis arising from fair value hedge accounting until the hedging relationship is dedesignated. The guidance on recalculating the effective rate is not intended to be applied to all other circumstances that result in an adjustment of a loan's amortized cost basis.

Transition Date: (P) December 16, 2022; (N) December 16, 2023 | **Transition Guidance:** 815-20-65-6

815-25-35-10

An asset or liability that has been designated as being hedged and accounted for pursuant to this Section remains subject to the applicable requirements in generally accepted accounting principles (GAAP) for assessing impairment or credit losses for that type of asset or for recognizing an increased obligation for that type of liability. Those impairment or credit loss requirements shall be applied after hedge accounting has been applied for the period and the carrying amount of the hedged asset or liability has been adjusted pursuant to paragraph 815-25-35-1(b). A portfolio layer method basis adjustment that is maintained on a closed portfolio basis for an existing hedge in accordance with paragraph 815-25-35-1(c) shall not be considered when assessing the individual assets or individual beneficial interest included in the closed portfolio for impairment or credit losses or when assessing a portfolio of assets for impairment or credit losses. An entity may not apply this guidance by analogy to other components of amortized cost basis. Because the hedging instrument is recognized separately as an asset or liability, its fair value or expected cash flows shall not be considered in applying those impairment or credit loss requirements to the hedged asset or liability.

Interaction with Loan Impairment**815-25-35-11**

This Subtopic implicitly affects the measurement of credit losses under Subtopic 326-20 on financial instruments measured at amortized cost by requiring the present value of expected future cash flows to be discounted by the new effective rate based on the adjusted amortized cost basis in a hedged loan. Paragraph 326-20-55-9 requires that, when the amortized cost basis of a loan has been adjusted under fair value hedge accounting, the effective rate is the discount rate that equates the present value of the loan's future cash flows with that adjusted amortized cost basis. That paragraph states that the adjustment under fair value hedge accounting for changes in fair value attributable to the hedged risk under this Subtopic shall be considered to be an adjustment of the loan's amortized cost basis. As discussed in that paragraph, the loan's original effective interest rate becomes irrelevant once the recorded amount of the loan is adjusted for any changes in its fair value. Because paragraph 815-25-35-10 requires that the loan's amortized cost basis be adjusted for hedge accounting before the requirements of Subtopic 326-20 are applied, this Subtopic implicitly supports using the new effective rate and the adjusted amortized cost basis. A portfolio layer method basis adjustment that is maintained on a closed portfolio basis for an existing hedge in accordance with paragraph 815-25-35-1(c) shall not adjust the amortized cost basis of the individual assets or individual beneficial interest included in the closed portfolio. An entity may not apply this guidance by analogy to other components of amortized cost basis.

815-25-35-12

This guidance applies to all entities applying Subtopic 326-20 to financial assets that are hedged items in a fair value hedge, regardless of whether those entities have delayed amortizing to earnings the adjustments of the loan's amortized cost basis arising from fair value hedge accounting until the hedging relationship is dedesignated. The guidance on recalculating the effective rate is not intended to be applied to all other circumstances that result in an adjustment of a loan's amortized cost basis and is not intended to be applied to the individual assets or individual beneficial interest in an existing portfolio layer method hedge closed portfolio.

With the exception of portfolio layer method basis adjustments maintained on a closed portfolio basis (as discussed in section 5.3.4A.2), companies must consider the effect of hedge accounting adjustments when making their impairment evaluations. Further, the guidance requires the present value of expected future cash flows to be discounted by the new effective rate based on the adjusted amortized cost basis in a hedged loan. To the extent that the fair value hedge accounting mechanics result in adjusting the carrying value of the hedged item to a lower amount (i.e., below its market value), the need for an impairment allowance is obviated as a consequence of the item's fair value being hedged. Refer to Example 9 in this chapter for more detail on the practical application of this guidance.

5.2.3 Hedge of inventory (added September 2022)

Applying hedge accounting to a fair value hedge of inventory is less complex when the hedged item is a firm commitment to purchase inventory rather than inventory on hand.

The adjustments to the hedged item (i.e., the firm commitment) reflect changes in its fair value related to the risk being hedged (i.e., the change in value of the inventory). These adjustments are offset in earnings by changes in the fair value of the hedging derivative. Before the hedge expires and the inventory is purchased, the firm commitment balance is not considered part of the cost basis of the entity's existing inventory and is excluded from any inventory cost policy (e.g., last in, first out (LIFO), first in, first out (FIFO)). When the inventory is purchased, the firm commitment balance is no longer a separate asset or liability and is reclassified as part of the cost basis of the inventory. The inventory acquired as a result of the firm commitment is then subject to the company's normal inventory costing policy. However, the cost of the inventory includes the purchase price for the inventory and the asset or liability recorded for the firm commitment while hedge accounting was applied.

Hedging inventory on hand can be more challenging because the cost basis of the hedged inventory will continue to change as a result of the hedging transaction as the inventory is adjusted for changes in its fair value associated with the risk being hedged (i.e., the fair value hedge basis adjustment). Both the adjustment to the hedged inventory and the change in the fair value of the hedging instrument are recorded in earnings.

A company that hedges multiple layers of inventory with different cost bases (e.g., because they were acquired at different times) would need to allocate the fair value hedge basis adjustment to individual inventory items in each layer being hedged. This can be complex, particularly when inventory layers are continually being hedged and individual inventory items in the hedged layers are sold, because the company will need to track the fair value hedge basis adjustments by inventory layer and allocate the specific adjustment to individual inventory items in a given layer. As inventory items are sold, the company's inventory cost policy (e.g., LIFO, FIFO) should be followed to determine the cost of inventory for purposes of recording the entity's gross margin. When hedged inventory is derecognized based on the entity's inventory cost policy, a hedge relationship may need to be terminated. Refer to Example 7 in this chapter for an illustration of a fair value hedge of LIFO inventory on hand and the subsequent allocation of the change in value of the inventory to each layer.

Accounting for cash flow hedges of the forecasted sale of existing inventory may be less complex. In a cash flow hedge, the basis in the inventory being hedged is not adjusted. Instead, changes in the fair value of the hedging derivative are accumulated in other comprehensive income until they are recognized in earnings when the sale of inventory occurs. Accordingly, a cash flow hedging strategy achieves the same overall hedge objective as a fair value hedge of inventory, which is to preserve a certain gross margin. It should be noted, however, that applying the cash flow hedge model can present different challenges, such as forecasting when the inventory will be sold. Refer to chapter 6 for additional discussion of cash flow hedges.

5.3 Hedging benchmark interest rate risk under the long-haul method

As discussed in chapter 4, to qualify for fair value hedge accounting under ASC 815, a hedging relationship (both at inception and on an ongoing basis) must be expected to be highly effective in offsetting changes in the fair value attributable to the hedged risk throughout the term of the hedging relationship. The determination that a hedging relationship is highly effective is considered both retrospectively and prospectively (i.e., the hedge was and is expected to continue to be highly effective).

ASC 815 permits entities to designate interest rate risk as the hedged risk in fair value hedges of fixed-rate financial instruments but requires the designated risk to be defined as the changes in fair value attributed to a benchmark interest rate. ASC 815-20-25-6A provides the following US benchmark interest rates¹²⁵ that are eligible to be hedged:

- ▶ Rates on direct Treasury obligations of the US government
- ▶ The LIBOR Swap Rate
- ▶ The Fed Funds Effective Rate Overnight Index Swap Rate (referred to as the Fed Funds OIS rate)
- ▶ The Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Rate
- ▶ The SOFR Overnight Index Swap Rate (referred to as the SOFR OIS rate)

¹²⁵ Because US GAAP does not provide a similar list of eligible benchmark rates for non-US interest rates, judgment is needed to determine non-US benchmark interest rates that can be designated as the hedged risk in fair value hedging relationships. Entities refer to the definition of a benchmark interest rate in the Master Glossary of the Codification when making this determination.

For fair value hedges of interest rate risk that do not qualify for the shortcut method (as discussed in section 4.8.3), the change in the fair value of the hedged item (e.g., a fixed-rate debt instrument) attributable to changes in the designated benchmark interest rate must be determined on a quantitative basis, independently from the changes in the fair value of the hedging derivative.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Changes Involving Interest Rate Risk

815-25-35-13

In calculating the change in the hedged item's fair value attributable to changes in the **benchmark interest rate** (see paragraph 815-20-25-12(f)(2)), the estimated coupon cash flows used in calculating fair value shall be based on either the full contractual coupon cash flows or the benchmark rate component of the contractual coupon cash flows of the hedged item determined at hedge inception.

ASC 815-25-35-13 allows entities to use either (1) the full contractual coupon cash flows or (2) the benchmark interest rate component (determined at hedge inception) of the contractual coupon cash flows to calculate the change in the fair value of the hedged item attributable to changes in the benchmark interest rate. This election can be made on a hedge-by-hedge basis.

How we see it

While ASC 815 does not specifically address how to determine the benchmark interest rate component of the contractual coupon cash flows, the definitions of the various eligible US benchmark rates (e.g., the SOFR OIS rate) make it clear that this amount is based on the fixed rate of an at-market interest rate swap issued on the hedge designation date in which the floating leg is the hedged benchmark interest rate (e.g., SOFR OIS) with no added spread. In addition, the swap would have terms that match those of the hedged item (e.g., maturity or assumed maturity, prepayment features).

As a result, we believe it is acceptable to use the fixed rate on the actual hedging swap to determine the contractual coupon cash flows of the hedged item, assuming the actual swap meets the criteria noted above. If the actual hedging swap is issued at market (i.e., its fair value, excluding the bid-ask spread, is zero) but has a fixed spread on the floating leg, the benchmark rate can be determined by adding or subtracting this spread from the stated fixed rate on the swap.

For example, if the actual swap had a fixed leg (pay) of 5.2% and a variable leg (receive) of SOFR OIS plus 20 basis points, the designated benchmark interest would be 5%. This is because interest rate swaps with the following terms are deemed to be economically identical: (1) pay fixed rate of 5%, receive SOFR OIS flat and (2) pay fixed leg of 5.2 %, receive SOFR OIS plus 20 basis points. If the fixed rate on the actual swap is used to determine the contractual coupon cash flows, this rate may inherently include costs that are incorporated into the pricing of an at-market swap, such as a credit valuation adjustment and a bid-ask spread.

Entities are allowed to use benchmark rate cash flows to determine the change in the fair value of the hedged item attributable to changes in the benchmark interest rate even if the benchmark interest rate being hedged is greater than the current market yield of the hedged item at hedge inception. As a result, entities can use benchmark cash flows when hedging interest rate risk in instruments with "negative credit spreads" (e.g., instruments issued by high-credit-quality borrowers that can obtain financing at fixed rates below the current benchmark rate).

Entities may also hedge benchmark interest rate cash flows that are greater than the total contractual coupon cash flows of the hedged item. This means entities can use benchmark interest rate cash flows to determine the change in the fair value of the hedged item attributable to changes in the benchmark

interest rate in fixed-rate financial instruments that are designated in hedging relationships subsequent to their issuance, when benchmark interest rates have increased between the time the instrument was originally issued and the time the hedge is designated. This concept is also important for entities using the last-of-layer method (discussed in section 5.3.4) because it expands the prepayable financial assets that can be included in a “closed portfolio” under this method.

How we see it

We believe many entities will elect to use the benchmark rate component of the contractual coupon cash flows to determine the change in fair value of the hedged item since this will generally result in more effective hedging relationships. This is because the benchmark rate being hedged and the fixed rate on the hedging swap will match if the swap is “at-market” and executed at the inception of the hedging relationship.

However, certain mismatches may continue to exist, resulting in some earnings volatility for these hedging relationships. For example, if a hedging derivative is not fully collateralized, the credit risk associated with the derivative will likely result in an earnings mismatch, even when benchmark rate cash flows are used.

If an “off-market” swap is designated as the hedging instrument, the use of the benchmark rate component cash flows to determine the change in fair value of the hedged item will result in an additional mismatch, given the requirement in ASC 815-25-35-13 that these cash flows be determined at the inception of the hedging relationship. This would be the case when a fair value hedging relationship is discontinued and redesignated using the existing swap as the hedging instrument because the fixed rate on the existing swap would likely not match the relevant benchmark interest rate as of the redesignation date. In addition, we believe a mismatch would generally exist even if the entity chose to use the contractual coupons cash flows to measure the change in fair value of the hedged item in the redesignated hedge.

5.3.1

Partial-term fair value hedges (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Measuring the Change in Fair Value of the Hedged Item in Partial-Term Hedges of Interest Rate Risk Using an Assumed Term

815-25-35-13B

For a fair value hedge of interest rate risk in which the hedged item is designated as selected contractual cash flows in accordance with paragraph 815-20-25-12(b)(2)(ii), an entity may measure the change in the fair value of the hedged item attributable to interest rate risk using an assumed term that begins when the first hedged cash flow begins to accrue and ends when the last hedged cash flow is due and payable. The assumed issuance of the hedged item occurs on the date that the first hedged cash flow begins to accrue. The assumed maturity of the hedged item occurs on the date in which the last hedged cash flow is due and payable. An entity may measure the change in fair value of the hedged item attributable to interest rate risk in accordance with this paragraph when the entity is designating the hedged item in a hedge of both interest rate risk and foreign exchange risk. In that hedging relationship, the change in carrying value of the hedged item attributable to foreign exchange risk shall be measured on the basis of changes in the foreign currency spot rate in accordance with paragraph 815-25-35-18. Additionally, an entity may have one or more separately designated partial-term hedging relationships outstanding at the same time for the same debt instrument (for example, 2 outstanding hedging relationships for consecutive interest cash flows in Years 1-3 and consecutive interest cash flows in Years 5-7 of a 10-year debt instrument).

Pending Content:

Transition Date: (P) December 16, 2022; (N) December 16, 2023 | **Transition Guidance:** 815-20-65-6
815-25-35-13B

For a fair value hedge of interest rate risk in which the hedged item is designated for a partial term in accordance with paragraph 815-20-25-12(b)(2)(ii), an entity may measure the change in the fair value of the hedged item attributable to interest rate risk using an assumed term that begins when the first hedged cash flow begins to accrue and ends at the end of the designated hedge period. The assumed issuance of the hedged item occurs on the date that the first hedged cash flow begins to accrue. The assumed maturity of the hedged item occurs at the end of the designated hedge period. An entity may measure the change in fair value of the hedged item attributable to interest rate risk in accordance with this paragraph when the entity is designating the hedged item in a hedge of both interest rate risk and foreign exchange risk. In that hedging relationship, the change in carrying value of the hedged item attributable to foreign exchange risk shall be measured on the basis of changes in the foreign currency spot rate in accordance with paragraph 815-25-35-18. Additionally, an entity may have one or more separately designated partial-term hedging relationships outstanding at the same time for the same debt instrument (for example, 2 outstanding hedging relationships for consecutive interest cash flows in Years 1-3 and consecutive interest cash flows in Years 5-7 of a 10-year debt instrument).

ASC 815 permits entities to hedge selected fixed-rate payments in a fair value hedge of interest rate risk (e.g., the first three years of interest rate payments on a five-year fixed-rate debt instrument). While such a hedge has long been permitted, executing such a strategy was generally not possible before the issuance of ASU 2017-12 because the hedging instrument (e.g., a swap with a three-year maturity) was not highly effective at offsetting changes in the fair value of the selected fixed cash flows of the financial instrument. This was because the fair value of the hedging instrument and the hedged item would react differently to changes in interest rates since the principal repayment of the debt occurs on a different date (i.e., in five years) than the swap's maturity (i.e., in three years).

ASU 2017-12 addressed this issue by allowing entities to calculate the change in the fair value of the hedged item in a partial-term hedge of a fixed-rate financial instrument using an assumed term (i.e., the hedged item can be "assumed" to mature on a date prior to its contractual maturity date). ASC 815-25-35-13B indicates that the assumed term of the hedged item begins when the first hedged cash flow begins to accrue and ends at the end of the designated hedge period.¹²⁶ By matching the assumed term of the hedged item with the term of the hedging instrument, entities can choose to hedge any consecutive interest payments associated with an existing fixed-rate financial instrument in a partial-term fair value hedge that is likely to be highly effective.

For example, when measuring the change in the fair value of the hedged item attributable to the change in interest rate risk, entities can assume that the term of the hedged item, and thus the principal repayment, occurs at the end of the designated hedged period (i.e., on the date when the hedging instrument matures). Further, when hedging selected fixed-rate payments that begin at some point in the future using a forward starting swap (e.g., when hedging fixed-coupon payments occurring in years three through seven related to a 10-year debt instrument), entities can assume that the issuance of the hedged item occurs on the date that the first hedged cash flow begins to accrue.

¹²⁶ Prior to adoption of ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, the guidance indicated that the assumed term of the hedged item coincided with the date that the last hedged cash flow is due and payable.

Although the measurement guidance in ASC 815-25-35-13B is limited solely to changes in the fair value of the hedged item due to changes in interest rate risk, this guidance is applicable to hedges of only interest rate risk as well as hedges of both interest rate risk and foreign exchange risk. In the latter case, the change in the carrying value of the hedged item attributable only to interest rate risk would first be measured using an assumed term in accordance with the guidance in ASC 815-25-35-13B. The change in the carrying value attributable to foreign exchange risk would then be measured on the basis of changes in the foreign currency spot rate in accordance with ASC 815-25-35-18. (Refer to section 7.6.1.3 for additional discussion on hedges of both interest rate risk and foreign exchange risk.)

In addition, an entity may effectively achieve partial-term hedge accounting for fair value hedges of only foreign exchange risk if it elects to exclude the change in fair value of the hedging instrument related to both time value and cross-currency basis spread from the assessment of hedge effectiveness. (Refer to section 7.6.1.3 for additional discussion on partial-term fair value hedges of foreign exchange risk.)

ASC 815 is also clear that the measurement guidance in ASC 815-25-35-13B may be applied simultaneously to multiple partial-term hedging relationships related to a single recognized financial asset or liability. That is, an entity is able to designate multiple hedging relationships to hedge selected contractual cash flows associated with a single recognized financial asset or liability in a partial-term fair value hedge of interest rate risk. For example, an entity that issues 10-year fixed-rate debt could choose to hedge the interest rate risk associated with the coupon payments in years three through five and years seven through nine by designating two separate hedging relationships.

Additional information on how the guidance on partial-term fair value hedging interacts with the guidance on portfolio hedges and the requirements for using the shortcut method is provided below.

5.3.1.1 Basis adjustments

An entity may choose to begin amortizing the basis adjustment on an outstanding partial-term hedge at any point prior to ceasing the hedging relationship, but no later than when the hedge is discontinued. If an entity chooses to begin amortizing the basis adjustment while the hedging relationship is still outstanding, ASC 815-25-35-9A indicates that the entity must fully amortize the adjustment by the hedged item's assumed maturity date.

If a partial-term hedging relationship is discontinued, any remaining basis adjustment is amortized into earnings in a manner consistent with other discounts or premiums associated with the hedged item (for example, in accordance with the guidance in ASC 310-20 on nonrefundable fees and other costs related to receivables).

5.3.1.2 Portfolio hedging

As discussed in section 4.6.9.1, in order for similar assets or similar liabilities to be aggregated in a fair value portfolio hedge, ASC 815-20-25-12(b)(1) requires that the individual assets or individual liabilities must share the risk exposure for which they are designated as being hedged. The change in the fair value attributable to the hedged risk for each individual item in a hedged portfolio is expected to respond in a generally proportionate manner to the overall change in fair value of the aggregate portfolio attributable to the hedged risk.

For a partial-term fair value hedge of interest rate risk, the guidance in ASC 815-20-55-15 allows entities to determine whether a group of fixed-rate financial instruments meets this requirement by considering the assumed maturity (as described above) of the instruments in the portfolio rather than their contractual maturity. For example, an entity could choose to hedge only the first four years of interest coupons in a portfolio of fixed-rate instruments with various scheduled maturity dates that exceeded four years. This concept (coupled with the ability to measure the change in fair value of the fixed-rate instruments in the portfolio using benchmark cash flows determined at hedge inception) may make it easier to conclude that the individual instruments in the portfolio share the risk exposure for which they are being hedged.

However, an entity seeking to hedge a portfolio of financial assets will likely benefit from using the portfolio layer method (or last-of-layer method prior to adoption of ASU 2022-01) because when certain requirements are met, this method also allows for the assumption that prepayments, defaults or other factors affecting the timing and amount of cash flows of the financial instruments in the closed portfolio being hedged apply to the portion of the closed portfolio or beneficial interest(s) that are not part of the hedged layer or layers. See sections 5.3.4 and 5.3.4A for additional discussion on the last-of-layer method and portfolio layer method, respectively.

5.3.1.3

Shortcut method

ASC 815 also allows entities to apply the shortcut method to partial-term fair value hedges of interest rate risk, even though the expiration date of the interest rate swap (e.g., seven years) used as the hedging instrument does not match the actual maturity date (e.g., 10 years) of the interest-bearing asset or liability being hedged. As long as all of the other criteria are satisfied, an entity can apply the shortcut method if the assumed maturity date of the hedged item (i.e., seven years) matches the expiration date of the hedging instrument.

One of the criteria to qualify for the shortcut method is that the interest-bearing asset or liability being hedged can generally not be prepayable. However, an entity could apply the shortcut method to a partial-term hedge of a fixed-rate financial instrument that is prepayable, as long as the instrument cannot be prepaid before its assumed maturity date (and all other criteria to qualify for the shortcut method are satisfied).

For example, assume that an entity issued a 10-year fixed-rate debt instrument that is callable only after year seven. The entity could designate a fair value hedge of interest rate risk for a term ending any time before the date the call option becomes exercisable in year seven and qualify for the shortcut method, assuming all other conditions for that method are met.

5.3.2

Prepayment features

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Fair Value Hedges of Interest Rate Risk in Which the Hedged Item Can Be Settled before Its Scheduled Maturity

815-20-25-6B

An entity may designate a fair value hedge of interest rate risk in which the hedged item is a prepayable instrument in accordance with paragraph 815-20-25-6. The entity may consider only how changes in the benchmark interest rate affect the decision to settle the hedged item before its scheduled maturity (for example, an entity may consider only how changes in the benchmark interest rate affect an obligor's decision to call a debt instrument when it has the right to do so). The entity need not consider other factors that would affect this decision (for example, credit risk) when assessing hedge effectiveness. Paragraph 815-25-35-13A discusses the measurement of the hedged item.

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Measuring the Fair Value of a Prepayable Instrument in Hedges of Interest Rate Risk

815-25-35-13A

In a hedge of interest rate risk in which the hedged item is a **prepayable** instrument in accordance with paragraph 815-20-25-6, the factors incorporated for the purpose of adjusting the carrying amount of the hedged item shall be the same factors that the entity incorporated for the purpose of assessing

hedge effectiveness in accordance with paragraph 815-20-25-6B. For example, if an entity considers only how changes in the benchmark interest rate affect an obligor's decision to prepay a debt instrument when assessing hedge effectiveness, it shall consider only that factor when adjusting the carrying amount of the hedged item. The election to consider only how changes in the benchmark interest rate affect an obligor's decision to prepay a debt instrument does not affect an entity's election to use either the full contractual coupon cash flows or the benchmark rate component of the contractual coupon cash flows determined at hedge inception for purposes of measuring the change in fair value of the hedged item in accordance with paragraph 815-25-35-13.

When measuring the change in the fair value of a prepayable financial instrument that is the hedged item in a fair value hedge of interest rate risk, an entity is allowed under ASC 815 to consider only how changes in the benchmark interest rate affect the decision to settle the hedged item before its scheduled maturity. The Board believes that this approach more accurately reflects the change in the fair value of the hedged item attributable solely to interest rate risk.

Absent this relief, a mismatch between the change in the fair value of the hedging instrument and the hedged item (which is recognized in earnings immediately) can occur, even when the hedging instrument includes a similar prepayment feature. This is because the factors, other than changes in interest rates, that could cause the hedged item to be prepaid would affect the prepayment feature in the hedging instrument differently, if at all. In addition to causing volatility in earnings, this mismatch could be significant enough in some instances that hedge accounting would not be permitted because the hedging relationship would not be highly effective.

5.3.3 Methodologies for measuring the hedged item

ASC 815 does not prescribe a single method to determine the change in a hedged item's fair value attributable to changes in the benchmark interest rate. Instead, the guidance includes illustrative examples that show two methods that can be used. These methods, which we refer to as the Example 9 method¹²⁷ and the Example 16 method,¹²⁸ are described below and illustrated in Example 4 of section 5.5.

5.3.3.1 Example 9 method

Under the Example 9 method, the change in a hedged item's fair value attributable to changes in the benchmark interest rate for a specific assessment period is determined as the difference between the present value of the hedged item's cash flows from the beginning of the assessment period versus the end of the assessment period. The discount rates used in these calculations are based on the benchmark interest rate as of the beginning of the period and the end of the period, respectively.

However, under this approach, both present value calculations consider the hedged item's remaining cash flows as of the end of the period for which the change in fair value is being calculated. That is, the present value calculation as of the beginning of the period does not include the cash flows that will occur during the current period. As a result, both present value calculations consider the same cash flows being discounted for the same number of periods, but at different discount rates, thereby isolating the change in value attributable to the change in the benchmark rate without including the change in value attributable to the passage of time.

¹²⁷ ASC 815-25-55-53 through 55-61C, Example 9: Fair Value Hedge of the LIBOR Swap Rate in a \$100,000 BBB-Quality 5-Year Fixed-Rate Noncallable Note.

¹²⁸ ASC 815-25-55-100 through 55-108, Example 16: Fair Value Hedge of the LIBOR Swap Rate in a \$100 Million A1-Quality 5-Year Fixed-Rate Noncallable Debt. This method is also illustrated in ASC 815-25-55-72 through 55-77, Example 11: Fair Value Hedge of the LIBOR Swap Rate in a \$100 Million A1-Quality 5-Year Fixed-Rate Noncallable Debt.

While ASC 815-25-55-56A states that there is no specific guidance on the discount rate that must be used in the calculation, Example 9 illustrates how the rates are derived in circumstances where an entity elects to calculate the change in the fair value of the hedged item attributable to interest rate risk on the basis of either (1) the contractual coupon cash flows or (2) the benchmark rate component of the contractual coupon cash flows.

In Case A of Example 9, the entity elects to measure the hedged item using its contractual component cash flows. As a result, the example shows that the discount rate would be based on the market interest rate for the hedged item at the inception of the hedging relationship (which includes the issuer's credit spread). Therefore, the discount rates used in the present value calculations are as follows: (1) the discount rate equal to the market interest rate for the hedged item at the inception of the hedge adjusted (up or down) for changes in the benchmark rate from the inception of the hedge to the beginning date of the period for which the change in fair value is being calculated and (2) the discount rate equal to the market interest rate for the hedged item at the inception of the hedge adjusted (up or down) for changes in the benchmark rate from the inception of the hedge to the ending date of the period for which the change in fair value is being calculated.

In Case B of Example 9, the entity elects to calculate the change in the fair value of the hedged item attributable to interest rate risk on the basis of the benchmark rate component of the contractual coupon cash flows determined at hedge inception. In that case, the discount rates used in the present value calculations are as follows: (a) the designated benchmark rate as of the beginning date of the period for which the change in fair value is being calculated and (b) the designated benchmark rate as of the ending date of the period for which the change in fair value is being calculated.

5.3.3.2

Example 16 method

Consistent with the Example 9 method, the change in a hedged item's fair value attributable to changes in the benchmark interest rate for a specific assessment period is determined under the Example 16 method as the difference between the present value of the hedged item's cash flows from the beginning of the assessment period versus the end of the assessment period. The discount rates used in these calculations are based on the benchmark interest rate as of the beginning of the period and as of the end of the period, respectively, consistent with Example 9. However, instead of considering the remaining cash flows as of the end of the period for both present value calculations, the Example 16 method uses the remaining cash flows as of the beginning of the period to determine the present value of the hedged item as of the beginning of the period. As a result, the number of cash flows and periods these cash flows are discounted, as well as the discount rate used, will be different in the two present value calculations.

Using the remaining cash flows as of the beginning of the period and end of the period, respectively, in the two present value calculations under the Example 16 method results in the change in fair value of the hedged item attributable to the change in the benchmark interest rate including the change in fair value attributable to the passage of time. Because the Example 9 method excludes the passage of time (as discussed in section 5.3.3.1), the two methods will likely yield different results.

5.3.4 Last-of-layer method for hedging a portfolio of prepayable financial assets before the adoption of ASU 2022-01

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Item Criteria Applicable to Fair Value Hedges Only

815-20-25-12A

For a closed portfolio of **prepayable** financial assets or one or more beneficial interests secured by a portfolio of prepayable financial instruments, an entity may designate as the hedged item a stated amount of the asset or assets that are not expected to be affected by prepayments, defaults, and other factors affecting the timing and amount of cash flows if the designation is made in conjunction with the partial-term hedging election in paragraph 815-20-25-12(b)(2)(ii) (this designation is referred to throughout Topic 815 as the “last-of-layer method”).

- a. As part of the initial hedge documentation, an analysis shall be completed and documented to support the entity’s expectation that the hedged item (that is, the designated last of layer) is anticipated to be outstanding as of the hedged item’s assumed maturity date in accordance with the entity’s partial-term hedge election. That analysis shall incorporate the entity’s current expectations of prepayments, defaults, and other events affecting the timing and amount of cash flows associated with the closed portfolio of prepayable financial assets or beneficial interest(s) secured by a portfolio of prepayable financial instruments.
- b. For purposes of its analysis, the entity may assume that as prepayments, defaults, and other events affecting the timing and amount of cash flows occur, they first will be applied to the portion of the closed portfolio of prepayable financial assets or one or more beneficial interests that is not part of the hedged item (that is, the designated last of layer).

Prior to the adoption of ASU 2022-01, ASC 815 provides an approach, called the last-of-layer method, for fair value hedges of benchmark interest rate risk related to prepayable financial assets in a closed portfolio or beneficial interests secured by prepayable financial instruments. As part of the targeted improvements to hedge accounting made by ASU 2017-12, the FASB developed the last-of-layer method to address stakeholder concerns that the fair value hedge accounting model was overly complex and prohibitive when it came to hedging interest rate risk associated with a portfolio of prepayable financial assets (such as a portfolio of fixed-rate mortgage loans).

The last-of-layer method significantly reduced complexity by allowing entities to “ignore” prepayment risk when measuring the change in fair value of the hedged item, as long as the amount designated as being hedged (i.e., the last layer) is expected to remain outstanding until the hedged item’s assumed maturity date.

This method also simplified an entity’s ability to determine that individual assets within the portfolio being hedged share the same risk exposure for which they are designated as being hedged (i.e., the similar asset test).

5.3.4.1

Similar asset test

Excerpt from Accounting Standards Codification**Derivatives and Hedging – Hedging-General***Implementation Guidance and Illustrations**Determining Whether Risk Exposure Is Shared Within a Portfolio***815-20-55-14**

This implementation guidance discusses the application of the guidance in paragraph 815-20-25-12(b)(1) that the individual assets or individual liabilities within a portfolio hedged in a fair value hedge shall share the risk exposure for which they are designated as being hedged. If the change in fair value of a hedged portfolio attributable to the hedged risk was 10 percent during a reporting period, the change in the fair values attributable to the hedged risk for each item constituting the portfolio should be expected to be within a fairly narrow range, such as 9 percent to 11 percent. In contrast, an expectation that the change in fair value attributable to the hedged risk for individual items in the portfolio would range from 7 percent to 13 percent would be inconsistent with the requirement in that paragraph.

815-20-55-14A

If both of the following conditions exist, the quantitative test described in paragraph 815-20-55-14 may be performed qualitatively and only at hedge inception:

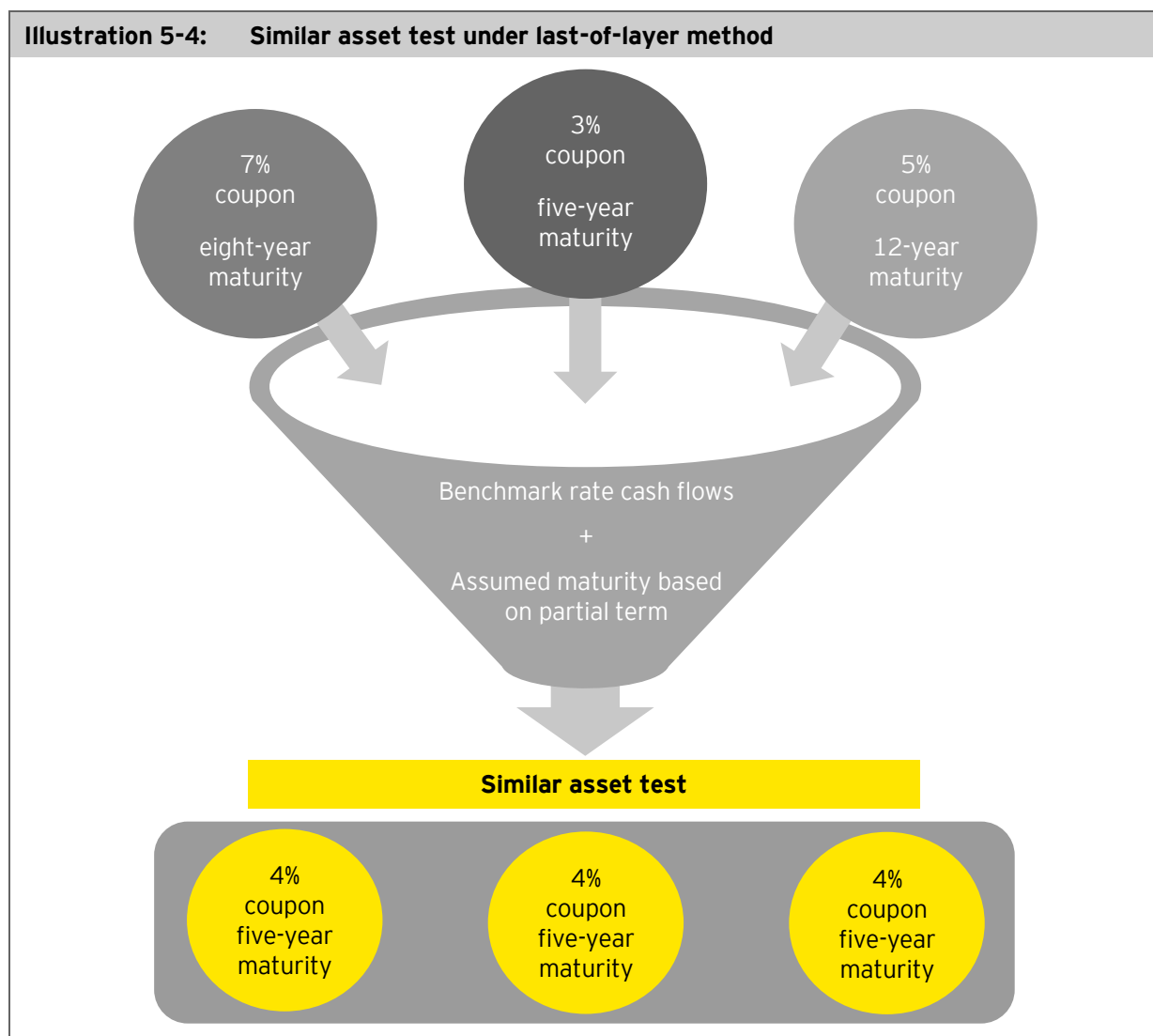
- a. The hedged item is a closed portfolio of prepayable financial assets or one or more beneficial interests designated in accordance with paragraph 815-20-25-12A.
- b. An entity measures the change in fair value of the hedged item based on the benchmark rate component of the contractual coupon cash flows in accordance with paragraph 815-25-35-13.

Using the benchmark rate component of the contractual coupon cash flows when all assets have the same assumed maturity date and prepayment risk does not affect the measurement of the hedged item results in all hedged items having the same benchmark rate component coupon cash flows.

ASC 815-20-25-12(b)(1) states that the change in fair value attributable to the hedged risk for each individual item in a hedged portfolio is expected to respond in a generally proportionate manner to the overall change in fair value of the aggregate portfolio attributable to the hedged risk. ASC 815-20-55-14 illustrates the application of this guidance, noting that if the change in fair value of a hedged portfolio attributable to the hedged risk was 10% during a reporting period, the change in the fair values attributable to the hedged risk for each item constituting the portfolio should be expected to be within a fairly narrow range, such as 9% to 11%. Expected changes for individual items in the portfolio ranging from 7% to 13% would be inconsistent with the notion that the assets are “similar.”

This requirement often made it difficult, if not impossible, for a group of disparate fixed-rate assets (e.g., mortgage loans with different vintages, maturities, contractual coupons) to qualify to be hedged on a portfolio basis.

The last-of-layer method incorporates certain of the measurement elections related to fair value hedges of benchmark interest rate risk (i.e., using the benchmark rate component of contractual coupon cash flows in a partial-term hedge) to simplify the application of the similar assets test. Under the last-of-layer method, this test can be performed qualitatively and only at hedge inception because the hedged items are deemed to be homogeneous (i.e., assets whose change in fair value related to interest rate risk is not affected by prepayment risk and that share the same benchmark rate cash flows and assumed maturity date) as illustrated below.



As noted in section 5.3, ASC 815 allows entities to hedge benchmark interest rate cash flows (based on the benchmark interest rate at hedge inception) even when these cash flows exceed the total contractual coupon cash flows of the hedged item. Therefore, as shown in the illustration above, an entity may include a mortgage loan with a 3% coupon in the closed portfolio of a last-of-layer hedging relationship when the benchmark rate being hedged is 4% i.e., the benchmark rate at hedge inception). This provides entities with additional flexibility in identifying loans that can be included in the closed portfolio of a last-of-layer hedge.

5.3.4.2

Measurement of hedged item

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Consideration of Prepayment Risk Using the Last-of-Layer Method

815-20-25-118A

In a fair value hedge of interest rate risk designated under the last-of-layer method in accordance with paragraph 815-20-25-12A, an entity may exclude prepayment risk when measuring the change in fair value of the hedged item attributable to interest rate risk.

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Estimating the Remaining Balance under the Last-of-Layer Method

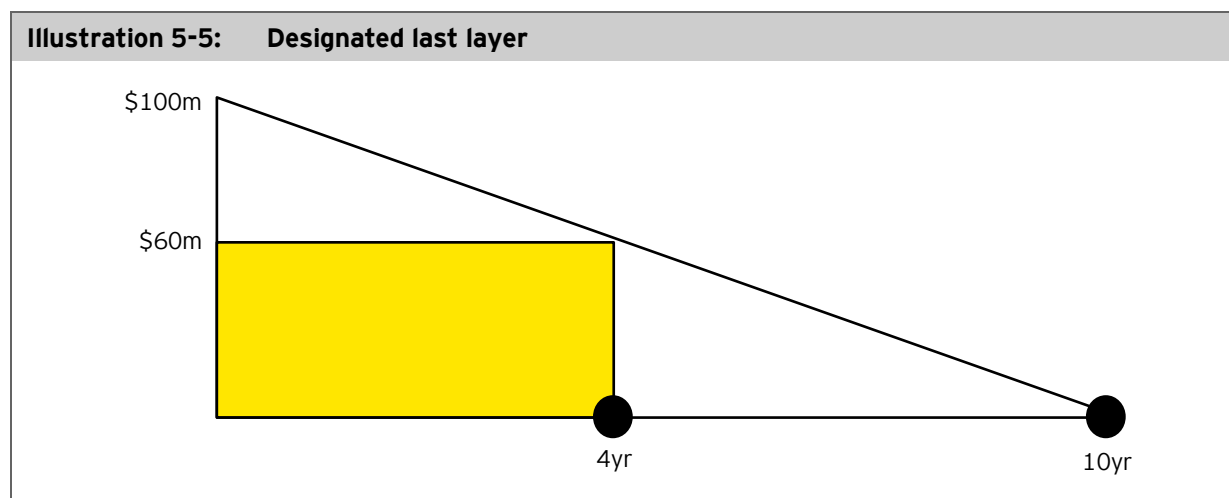
815-25-35-7A

When the hedged item is designated and accounted for under the last-of-layer method in accordance with paragraph 815-20-25-12A, an entity shall perform and document at each effectiveness assessment date an analysis that supports the entity's expectation that the hedged item (that is, the designated last of layer) is still anticipated to be outstanding as of the hedged item's assumed maturity date. That analysis shall incorporate the entity's current expectations of prepayments, defaults, and other events affecting the timing and amount of cash flows using a method consistent with the method used to perform the analysis in paragraph 815-20-25-12A(a).

For a closed portfolio of prepayable financial assets or one or more beneficial interests secured by a portfolio of prepayable financial instruments, the guidance allows the hedged item to be designated as a stated amount of the asset(s) that the entity expects to be outstanding as of the hedged item's assumed maturity date. This amount represents the last layer of the closed portfolio or beneficial interest. Under this method, any prepayments, defaults or other factors affecting the timing and amount of cash flows (e.g., sales or other removals from the portfolio) are assumed to apply to the portion of the closed portfolio or beneficial interest that are not part of the last layer.

That is, as long as the last layer amount designated is expected to remain outstanding as of the hedged item's assumed maturity date, the guidance allows entities to exclude prepayment risk when measuring the change in fair value of the hedged item.

For example, from a closed portfolio of \$100 million in prepayable mortgage loans (with stated maturities equal to or greater than four years), an entity could designate \$60 million in loans as the hedged item (i.e., the last layer) in a fair value hedge of benchmark interest rate risk for four years, as long as the entity expects that \$60 million of the closed portfolio will be outstanding at the end of year 4 (the hedged item's assumed maturity date). This can be illustrated as follows:



In order to apply the last-of-layer method, an entity is required to perform and document an analysis at hedge inception and at each subsequent assessment date supporting its expectation that the designated last layer amount is still anticipated to be outstanding as of the hedged item's assumed maturity date. This analysis should incorporate the entity's current expectations of prepayments, defaults and sales related to the assets in the closed portfolio or the beneficial interest(s).

Due to the lack of specific guidance, questions have been raised about whether an entity may voluntarily remove prepayable financial assets from the closed portfolio without having to discontinue the existing hedging relationship. At the 5 September 2018 Board meeting, the FASB staff indicated that entities are able to voluntarily remove (i.e., transfer) assets from the closed portfolio in a last-of-layer hedge without having to discontinue the hedging relationship (assuming that the prepayable assets remaining in the closed portfolio are sufficient to continue to support the entity's expectation that the last layer amount designated as the hedged item will remain outstanding as of the hedged item's assumed maturity date).

How we see it

The clarification that the concept of a closed portfolio, as this term is used in the guidance on the last-of-layer method, does not preclude the voluntary transfer or removal of prepayable assets from the pool of assets originally considered in the hedging relationship provides entities with more flexibility. For example, an entity may subsequently determine that there has been a decrease in the amount of assets needed in the closed portfolio to continue supporting its expectation that the designated last layer amount will remain outstanding until the hedged item's assumed maturity date. This may be the case if the entity's expectations about the speed of prepayment of the assets in the closed portfolio changes after the hedge is designated.

Based on the FASB staff's clarification, an entity could voluntarily remove some of the assets from the closed portfolio of the existing hedging relationship and include them in a pool of assets used to support a new last-of-layer hedging relationship. This would enable an entity to maximize the amount of fixed-rate prepayable assets it is able to hedge.

It is important to note, however, that an entity cannot add prepayable assets to a closed portfolio and continue applying hedge accounting. To add assets, the entity would have to discontinue hedge accounting for the existing hedge and designate a new hedging relationship.

5.3.4.3

Partial and full dedesignation

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Derecognition

Hedged Item is Designated under the Last-of-Layer Method

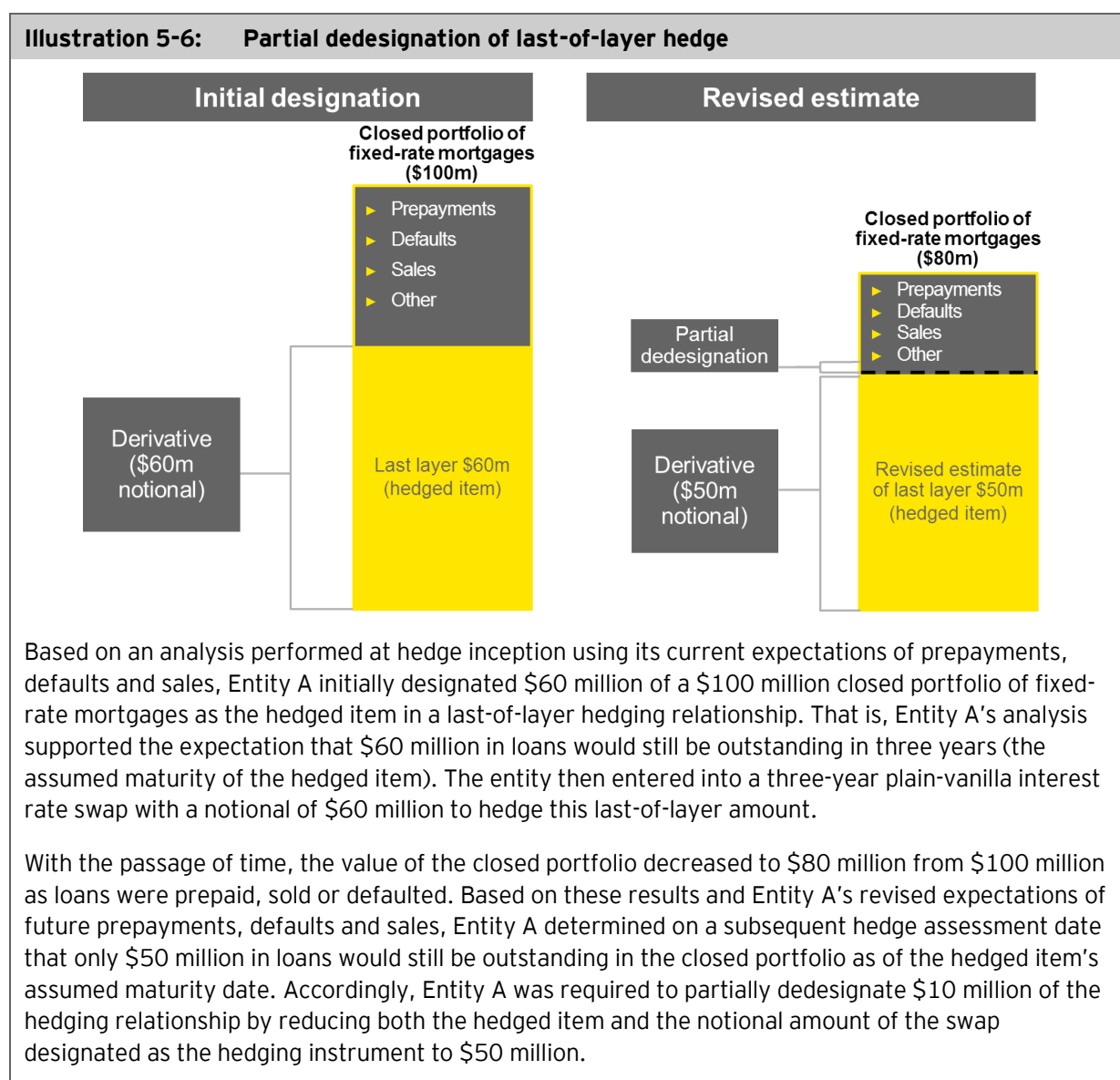
815-25-40-8

For a hedging relationship designated under the last-of-layer method in accordance with paragraph 815-20-25-12A, an entity shall discontinue (or partially discontinue) hedge accounting in either of the following circumstances:

- a. If the entity cannot support on a subsequent testing date that the hedged item (that is, the designated last of layer) is anticipated to be outstanding in accordance with paragraph 815-25-35-7A, it shall at a minimum discontinue hedge accounting for the portion of the hedged item no longer expected to be outstanding at the hedged item's assumed maturity date.
- b. If on a subsequent testing date the outstanding amount of the closed portfolio of prepayable financial assets or one or more beneficial interests is less than the hedged item, the entity shall discontinue hedge accounting.

If an entity determines on a subsequent testing date that the outstanding balance of the closed portfolio or beneficial interest(s) is lower than the designated amount of the hedged item (i.e., the last layer), the entity must discontinue hedge accounting (i.e., full dedesignation of the hedging relationship).

However, the guidance allows for partial dedesignation of a last-of-layer hedging relationship when the entity's expectations regarding the amount of the hedged item that will remain outstanding changes before the amount of the closed portfolio or beneficial interest(s) breaches the designated last-of-layer amount. That is, if an entity's analysis on a subsequent testing date no longer supports the expectation that the entire amount of the hedged item will remain outstanding as of the hedged item's assumed maturity date, the entity can discontinue hedge accounting only for the portion of the hedged item no longer expected to be outstanding, as illustrated below.



5.3.4.4

Basis adjustments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Derecognition

Hedged Item is Designated under the Last-of-Layer Method

815-25-40-9

If a last-of-layer method hedging relationship is discontinued (or partially discontinued), the outstanding basis adjustment (or portion thereof) as of the discontinuation date shall be allocated to the individual assets in the closed portfolio using a systematic and rational method. An entity shall amortize those amounts over a period that is consistent with the amortization of other discounts or premiums associated with the respective assets in accordance with other Topics (for example, Subtopic 310-20 on receivables-nonrefundable fees and other costs).

If a last-of-layer hedging relationship is discontinued (or partially discontinued), the outstanding basis adjustment (or portion thereof) as of the discontinuation date is allocated to the remaining individual assets in the closed portfolio using a systematic and rational method. These allocated amounts would then be amortized over a period that is consistent with the amortization of other discounts or premiums associated with the individual assets in accordance with other US GAAP requirements.

If a hedging relationship is required to be discontinued because the outstanding balance of the closed portfolio or beneficial interest(s) falls below the designated amount of the hedged item (i.e., full dedesignation as described above), we believe the portion of the basis adjustment related to the amount by which the hedged item exceeds the balance in the closed portfolio or beneficial interest(s) is recognized in earnings immediately. The remaining basis adjustment allocated to the individual assets in the portfolio is amortized into earnings in a manner consistent with other discounts or premiums associated with the individual assets.

For a last-of-layer hedge that is partially dedesignated (e.g., when the full amount of the hedged item is no longer expected to remain outstanding until its assumed maturity), only the basis adjustment associated with the portion of the hedge that is discontinued needs to be allocated to the individual assets in the closed portfolio at that time.

An entity may choose to begin amortizing the basis adjustment on an outstanding last-of-layer hedge at any point before ceasing the hedging relationship. In these instances, ASC 815-25-35-9A indicates that the basis adjustment should be fully amortized by the hedged item's assumed maturity date.

5.3.4A

Portfolio layer method for hedging a portfolio of financial assets after the adoption of ASU 2022-01 (added September 2023)

The FASB issued ASU 2022-01 to allow entities to expand their use of what is now called the portfolio layer method (previously the last-of-layer method) in order to better align hedge accounting for fair value hedges of interest rate risk with entities' risk management objectives. The last-of-layer method served to reduce complexity when applying fair value hedge accounting to portfolios of certain financial assets by simplifying the analysis entities must perform to determine whether the individual assets in a closed portfolio share the risk exposure for which they were designated as being hedged (commonly referred to as the similar assets test) and by allowing entities to "ignore" prepayment risk when measuring the change in fair value of the hedged item if certain requirements are met. However, stakeholders raised concerns about the last-of-layer method noting that limiting hedge accounting to a single layer of a closed portfolio of only prepayable financial assets was inconsistent with entities' risk management objectives and decreased the model's usefulness.

The portfolio layer method addresses these concerns by allowing entities to (i) hedge multiple layers rather than just a single layer of a closed portfolio of financial assets or one or more beneficial interests secured by a portfolio of financial instruments and (ii) include nonprepayable financial assets in addition to prepayable financial assets in the closed portfolio being hedged.

How we see it

Many of the complexities that made hedging a portfolio of prepayable financial assets challenging also exist when hedging a portfolio of nonprepayable assets, because both types of assets can have uncertain cash flows for reasons other than prepayment risk (e.g., default risk). The portfolio layer method allows entities to apply a consistent approach to hedging both prepayable and nonprepayable financial assets on a portfolio basis, which will further align the hedge accounting requirements with the risk management objectives of entities.

Financial liabilities, however, continue to be excluded from the scope of the portfolio layer method. In comment letters, we and certain other stakeholders encouraged the FASB to include financial liabilities in the scope, highlighting that there was no apparent conceptual reason why the approach used to hedge interest rate risk in a portfolio of financial assets could not also be used when hedging interest rate risk in a portfolio of financial liabilities.

Many of the same challenges exist for fair value hedges of a portfolio of prepayable financial liabilities, such as certificates of deposit that are permitted to be put back to the issuing financial institution upon the holder's death. However, the Board decided for now to not include financial liabilities in the scope of the portfolio layer method.

5.3.4A.1 Designating portfolio layer method hedges

Under the portfolio layer method, entities can designate, as the hedged item or items, a layer or layers of a closed portfolio consisting of financial assets or one or more beneficial interests secured by a portfolio of financial instruments, if certain criteria are met.

5.3.4A.1.1 Hedged layer

The Master Glossary of the Codification defines a hedged layer as “a stated amount or stated amounts of a closed portfolio of financial assets or one or more beneficial interests secured by a portfolio of financial instruments that is not expected to be affected by prepayments, defaults or other factors affecting the timing and amount of cash flows for the designated hedge period.”

Accordingly, any prepayments, defaults or other factors affecting the timing and amount of cash flows (e.g., sales or other removals from the portfolio) are assumed to apply to the portion of the closed portfolio or beneficial interest(s) that are not part of the hedged layer or layers. As a result, as long as the designated hedged layer amount(s) is expected to remain outstanding for the hedged period, entities can exclude prepayment risk when measuring the change in fair value of the hedged item for assessment and measurement purposes and when performing the similar asset test. Refer to sections 5.3.4A.1.8 and 5.3.4A.1.6 for more details on these concepts.

How we see it

Questions have arisen about whether the phrase “not expected to be affected by prepayments, defaults or other factors affecting the timing and amount of cash flows for the period hedged” in the definition of a hedged layer is intended to imply that any asset in the closed portfolio that has been affected by prepayments or defaults would not be eligible to support a hedged layer amount and should essentially be removed from the closed portfolio. This would include assets that experience delinquencies that are expected to be cured during the life of the hedge and assets that are partially prepaid.

In our view, the objective of the portfolio layer method is to make sure that, throughout the term of a hedging relationship, an entity can demonstrate that it expects to have interest cash flows on an amount of assets or beneficial interests that equals or exceeds the stated amount of the designated hedge layer or layers in aggregate.

Therefore, we believe that assets that experience delinquencies expected to be cured during the hedge period and assets that are partially prepaid can continue to support the hedged layer amount(s) in a closed portfolio.

5.3.4A.1.2

Hedging one or more layers in a single closed portfolio

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Item Criteria Applicable to Fair Value Hedges Only

815-20-25-12A

For a closed portfolio of financial assets or one or more **beneficial interests** secured by a portfolio of financial instruments, an entity may designate as the hedged item or items a hedged layer or layers if the following criteria are met (this designation is referred to throughout Topic 815 as the “portfolio layer method”):

- a. As part of the initial hedge documentation, an analysis is completed and documented to support the entity’s expectation that the hedged item or items (that is, the hedged layer or layers in aggregate) is anticipated to be outstanding for the designated hedge period. That analysis shall incorporate the entity’s current expectations of prepayments, defaults, and other factors affecting the timing and amount of cash flows associated with the closed portfolio.
- b. For purposes of its analysis in (a), the entity assumes that as prepayments, defaults, and other factors affecting the timing and amount of cash flows occur, they first will be applied to the portion of the closed portfolio that is not hedged.
- c. The entity applies the partial-term hedging guidance in paragraph 815-20-25-12(b)(2)(ii) to the assets or beneficial interest used to support the entity’s expectation in (a). An asset that matures on a hedged layer’s assumed maturity date meets this requirement.

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Existing Portfolio Layer Method Hedges

815-25-35-7A

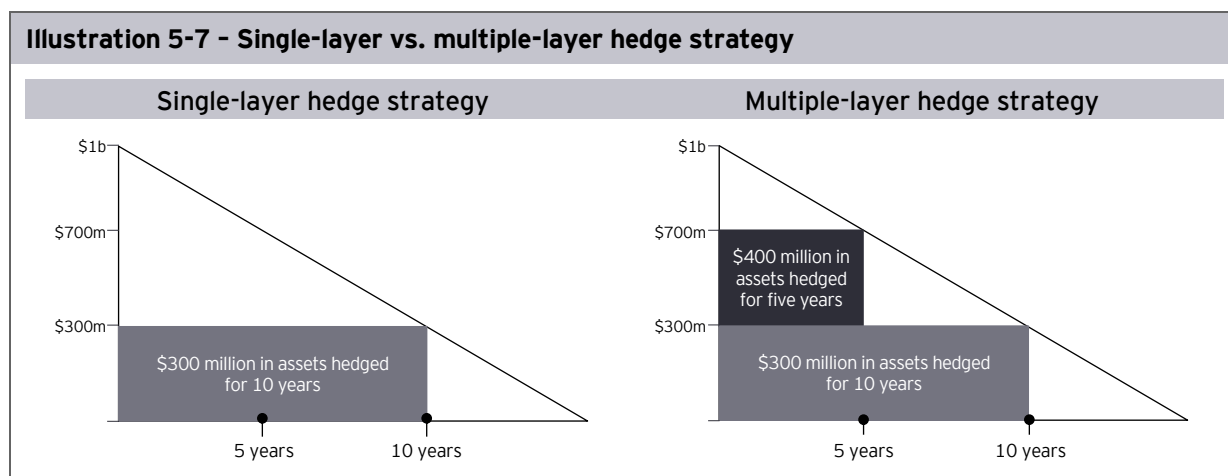
For each closed portfolio with one or more hedging relationships designated and accounted for under the portfolio layer method in accordance with paragraph 815-20-25-12A, an entity shall perform and document at each effectiveness assessment date an analysis that supports the entity’s expectation that the

hedged layer or layers in aggregate is still anticipated to be outstanding for the designated hedge period. That analysis shall incorporate the entity's current expectations of prepayments, defaults, and other factors affecting the timing and amount of cash flows associated with the closed portfolio using a method consistent with the method used to perform the analysis in paragraph 815-20-25-12A(a) and (b).

To apply the portfolio layer method, an entity is required under ASC 815-20-25-12A(a) to perform and document¹²⁹ at hedge inception an analysis to support its expectation that the hedged item or items (that is, the hedged layer or layers in aggregate) are anticipated to be outstanding for the designated hedge period(s).

The ability for entities to hedge multiple layers within a closed portfolio is one of the most important aspects of the portfolio method because it allows them to maximize the amount of outstanding principal that can be hedged within the portfolio and, therefore, better aligns with their risk management objectives.

For example, consider an entity with a \$1 billion closed portfolio of financial assets. If the entity expects \$400 million of assets to remain outstanding for at least five years and an additional \$300 million to remain outstanding for at least 10 years, it could hedge the following two layers, which increases the amount that can be hedged within a single closed portfolio, as illustrated below.



If the entity decides to hedge two layers, it would need to support its expectation that an aggregate amount of at least \$700 million in assets is anticipated to be outstanding for at least five years (i.e., the aggregate amount of both hedged layers in the period during which the two hedges overlap), in addition to supporting its expectation that \$300 million in assets will be outstanding for at least 10 years.

The guidance indicates that this analysis should incorporate the entity's current expectations of prepayments, defaults and other factors affecting the timing and amount of cash flows associated with the closed portfolio. As discussed above, the entity would assume that when prepayments, defaults and other factors affecting assets in the closed portfolio occur, they would first be applied to the portion of the closed portfolio that is not hedged.

The guidance in ASC 815-20-25-12A(c) further requires that the entity apply the partial-term hedge guidance in ASC 815-20-25-12(b)(2)(ii) to the assets or beneficial interests included in the closed portfolio and clarifies that an asset that matures on a hedged layer's assumed maturity date would be considered to meet this requirement.

In addition to the analysis required at hedge inception, ASC 815-25-35-7A requires that for each closed portfolio with one or more designated hedging relationships outstanding, the entity must perform and document at each effectiveness assessment date an analysis supporting its expectation that the hedged

¹²⁹ ASC 815-20-25-139 requires formal documentation of this analysis at hedge inception even for private companies.

layer (or hedged layers in aggregate) is still anticipated to be outstanding for the designated hedge period (or hedged periods). This analysis should incorporate the entity's current expectations of prepayments, defaults and other factors affecting the timing and amount of cash flows associated with the closed portfolio at each effectiveness assessment date, using a method consistent with the method used to perform the initial analysis.

5.3.4A.1.3 *Adding or removing a hedged layer*

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Item Criteria Applicable to Fair Value Hedges Only

815-20-25-12B

After a closed portfolio is established in accordance with paragraph 815-20-25-12A, an entity may designate new hedging relationships associated with the closed portfolio without dedesignating any existing hedging relationships associated with the closed portfolio if the criteria in paragraph 815-20-25-12A are met for those newly designated hedging relationships.

After a closed portfolio is established, entities can add new hedging relationships to the portfolio without having to dedesignate any of the existing hedging relationships associated with that portfolio, as long as the designation criteria is met for those newly designated hedging relationships. Entities can also choose to dedesignate an existing hedging relationship associated with a closed portfolio at any time. Refer to section 5.3.4A.3 for guidance on dedesignation.

5.3.4A.1.4 *Adding or removing financial assets*

Given the lack of specific guidance for the last-of-layer method, constituents had raised questions about whether an entity may voluntarily remove financial assets from the closed portfolio without having to discontinue the existing hedging relationship. At the 5 September 2018 Board meeting, the FASB staff said that entities are able to voluntarily remove (i.e., transfer) assets from the closed portfolio in a last-of-layer hedge without having to discontinue the hedging relationship, presumably assuming that the financial assets remaining in the closed portfolio are sufficient to continue supporting the entity's expectation that the last layer amount designated as the hedged item will remain outstanding as of the hedged item's assumed maturity date. We believe this guidance continues to apply to portfolio layer method.

How we see it

While this issue may be somewhat less relevant given the additional flexibility entities now have to include nonprepayable assets in a single closed portfolio, hedge multiple layers within a closed portfolio and add new hedging relationships to an existing closed portfolio, we believe this concept continues to apply to closed portfolios hedged under the portfolio layer method regardless of whether a single layer or multiple layers are designated as being hedged.

It is also important to note that an entity cannot add financial assets to a closed portfolio without having to discontinue all hedging relationships associated with that existing closed portfolio and designate new hedging relationships. Accordingly, we expect that entities will continue to create new closed portfolios to be hedged as additional assets are issued or acquired. In that regard, the ability for entities to voluntarily remove assets from an existing closed portfolio that has designated hedging relationships and include them in a newly established closed portfolio may be useful as companies look to create critical mass for new closed portfolios.

5.3.4A.1.5 *Composition of financial assets included in the closed portfolio*

There are no requirements with respect to the contractual maturities of the financial assets to be included in a closed portfolio. As such, entities may include financial assets in a closed portfolio that will mature before the end of any existing hedge period, as long as all hedged layers are sufficiently supported by the assets in the closed portfolio in the aggregate.

Accordingly, entities have the flexibility to combine assets with different maturity profiles in a single closed portfolio. For example, an entity can include shorter-term assets in a closed portfolio with longer-term assets, even though the shorter-term assets would not support any designated hedged layer at the time that the closed portfolio is established (i.e., all designated hedged layers extend beyond the maturity date of these assets). The shorter-term assets in the closed portfolio could, however, support hedged layers designated within this closed portfolio in the future, thereby eliminating the need for entities to construct separate closed portfolios to designate more hedging relationships.

Notwithstanding this flexibility, the financial assets in the closed portfolio still need to meet the similar asset test required for fair value hedges in ASC 815-20-25-12(b)(1). That is, the individual assets must share the risk exposure for which they are designated as being hedged.

5.3.4A.1.6 *Similar asset test*

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Implementation Guidance and Illustrations

Determining Whether Risk Exposure Is Shared Within a Portfolio

815-20-55-14

This implementation guidance discusses the application of the guidance in paragraph 815-20-25-12(b)(1) that the individual assets or individual liabilities within a portfolio hedged in a fair value hedge shall share the risk exposure for which they are designated as being hedged. If the change in fair value of a hedged portfolio attributable to the hedged risk was 10 percent during a reporting period, the change in the fair values attributable to the hedged risk for each item constituting the portfolio should be expected to be within a fairly narrow range, such as 9 percent to 11 percent. In contrast, an expectation that the change in fair value attributable to the hedged risk for individual items in the portfolio would range from 7 percent to 13 percent would be inconsistent with the requirement in that paragraph.

815-20-55-14A

If both of the following conditions exist, the quantitative test described in paragraph 815-20-55-14 may be performed qualitatively on a hedge-by-hedge basis and only at hedge inception:

- a. The hedged item is a hedged layer in a portfolio layer hedge designated in accordance with paragraph 815-20-25-12A.
- b. An entity measures the change in fair value of the hedged item based on the benchmark rate component of the contractual coupon cash flows in accordance with paragraph 815-25-35-13.

Using the benchmark rate component of the contractual coupon cash flows when all assets have the same assumed maturity date and prepayment risk (if applicable) does not affect the measurement of the hedged item results in all hedged items having the same benchmark rate component coupon cash flows.

815-20-55-14B

If the hedging instrument is a derivative with a notional amount that changes over time (for example, an amortizing-notional interest rate swap), the condition in paragraph 815-20-55-14A(b) can be satisfied because the swap has a contractual fixed rate and, thus, the hedged item can be measured on

the basis of a single benchmark component of the contractual coupon cash flows in accordance with paragraph 815-25-35-13. An entity that designates a derivative with a notional amount that changes over time as a hedging instrument is designating a single hedging relationship with a single benchmark rate component of the contractual coupon cash flows.

ASC 815-20-25-12(b)(1) states that the change in fair value attributable to the hedged risk for each individual item in a hedged portfolio is expected to respond in a generally proportionate manner to the overall change in fair value of the aggregate portfolio attributable to the hedged risk. ASC 815-20-55-14 illustrates the application of this guidance, noting that if the change in fair value of a hedged portfolio attributable to the hedged risk was 10% during a reporting period, the change in the fair values attributable to the hedged risk for each item constituting the portfolio should be expected to be within a fairly narrow range, such as 9% to 11%. Expected changes in fair value attributable to the hedged risk for individual items in the portfolio ranging from 7% to 13% would be inconsistent with the notion that the assets share the risk exposure for which they are being hedged.

This requirement made it difficult, if not impossible, for a group of disparate fixed-rate assets (e.g., mortgage loans with different vintages, maturities, contractual coupons) to be hedged on a portfolio basis.

The portfolio layer method incorporates certain other aspects of the guidance related to fair value hedges of benchmark interest rate risk to simplify the application of the similar assets test for closed portfolios where either a single layer or multiple layers are designated as being hedged. ASC 815-20-55-14A states that when the hedged item is a hedged layer in a portfolio, if the partial-term hedge guidance in ASC 815-20-25-12(b)(2)(ii) is applied to the assets or beneficial interests included in the closed portfolio as required by ASC 815-20-25-12A(c) and the entity measures the change in fair value of the hedged item based on the benchmark component of the contractual coupon cash flows in accordance with ASC 815-25-35-13, the similar asset test can be performed qualitatively on a hedge-by-hedge basis¹³⁰ and only at hedge inception.

How we see it

The Board acknowledged in paragraph BC112 of the Basis for Conclusions in ASU 2017-12, that the last-of-layer method (and subsequently the portfolio layer method) would only be operable if entities could apply it in combination with the guidance on partial-term hedging and the use of benchmark rate component cash flows. Otherwise, the assets in the closed portfolio would not be viewed as similar assets for hedge accounting purposes.

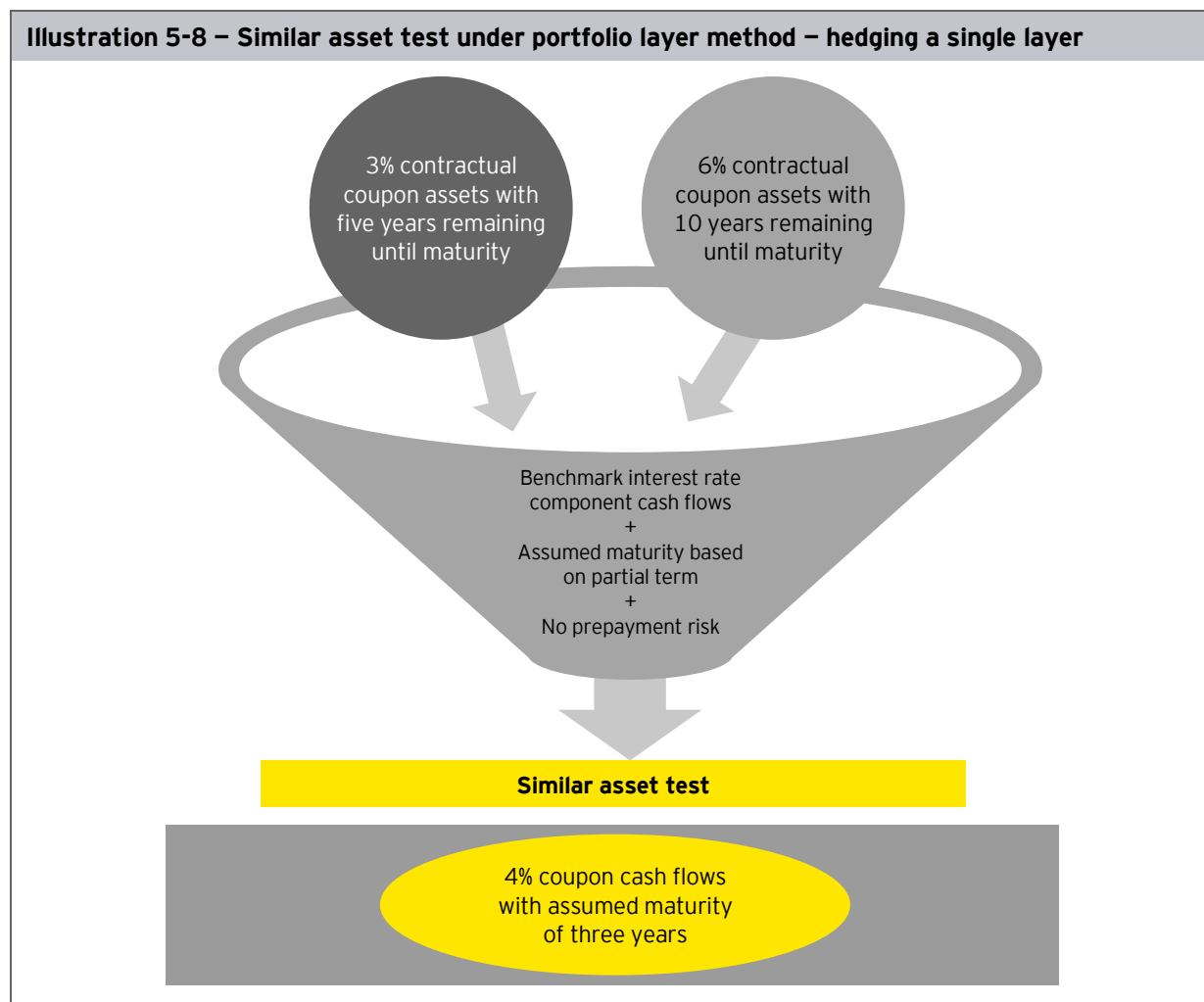
In describing how the different aspects of the fair value hedge guidance can be applied to enable entities to hedge a portfolio of financial assets whose contractual terms differ within a single hedging relationship, the Board noted that “[u]sing the benchmark rate component of the contractual coupon cashflows when (a) all assets have the same assumed maturity and (b) prepayment risk does not affect the measurement of the hedged item results in all hedged items having the same benchmark rate coupon. When those elections are made, and because the portfolio is closed, a similar assets test needs to be performed only at hedge inception. Additionally, all assets in the portfolio for hedge accounting purposes are considered nonamortizing and nonprepayable with the same maturity and coupon, resulting in the similar assets test being performed on a qualitative basis.”¹³¹

¹³⁰ Financial assets that do not support any outstanding hedging relationship in a closed portfolio (i.e., assets with contractual maturity dates before the end of any existing designated hedge period) are not considered in the similar asset test. However, subsequently these assets would need to be included in a similar asset test performed at the inception of any new hedging relationship where these assets could support the newly designated hedged layer.

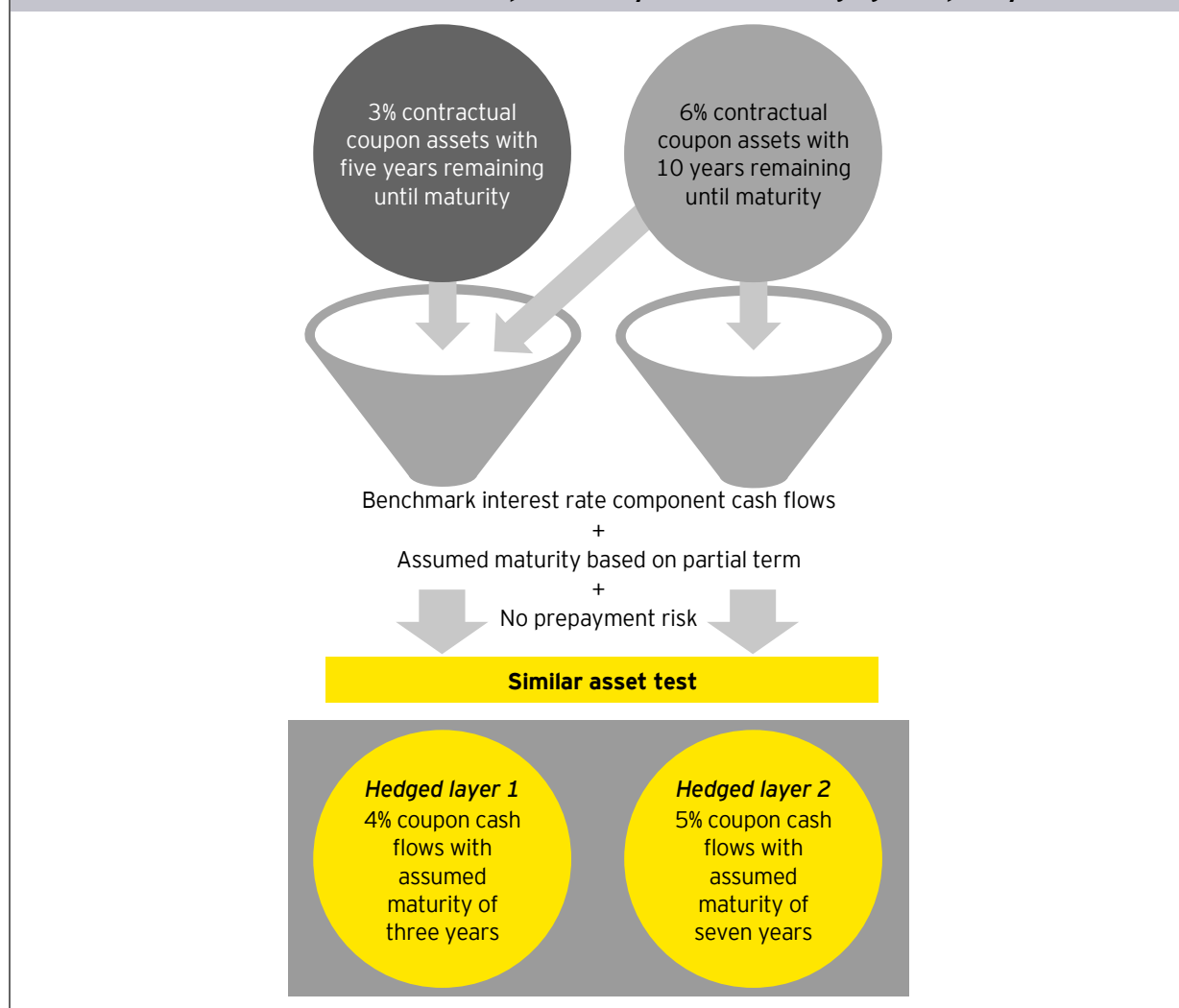
¹³¹ This discussion is consistent with the guidance codified in ASC 815-20-55-14A.

When the guidance on partial-term hedging and the use of benchmark rate component cash flows is applied, along with the ability to exclude prepayment risk under the portfolio layer method based on the guidance in ASC 815-20-25-118A, the assets in the closed portfolio are considered to share the risk exposure for which they are being hedged. That is because these assets are deemed to have the same assumed maturity date (based on applying the partial-term hedge guidance) and the same designated benchmark interest rate (based on using the benchmark rate component of the contractual coupon cash flows).

The application of this guidance to both a single-layer hedge strategy and a multiple-layer hedge strategy is demonstrated in the illustrations below.



It should be noted that ASC 815 allows entities to hedge benchmark interest rate cash flows (based on the benchmark interest rate at hedge inception) even when these cash flows exceed the total contractual coupon cash flows of the hedged item. This concept is highlighted in the illustration above, where the benchmark interest rate of the hedged layer is deemed to be 4% (i.e., the three-year benchmark interest rate at hedge inception) even though the contractual coupons associated with some of the assets supporting this hedged layer are only 3%.

Illustration 5-9 – Similar asset test under portfolio layer method – hedging multiple layers¹³²

In the illustration above, all the assets in the closed portfolio (i.e., assets with five years and 10 years remaining until contractual maturity) are considered to potentially make up hedged layer 1, which is deemed to comprise assets with assumed maturities of three years and benchmark interest rate coupons of 4% (i.e., the three-year benchmark interest rate at hedge inception). However, only those assets in the closed portfolio with 10 years remaining until contractual maturity are considered to potentially make up hedged layer 2, which is deemed to comprise assets with assumed maturities of seven years and benchmark interest rate coupons of 5% (i.e., the seven-year benchmark interest rate at hedge inception).

5.3.4A.1.7

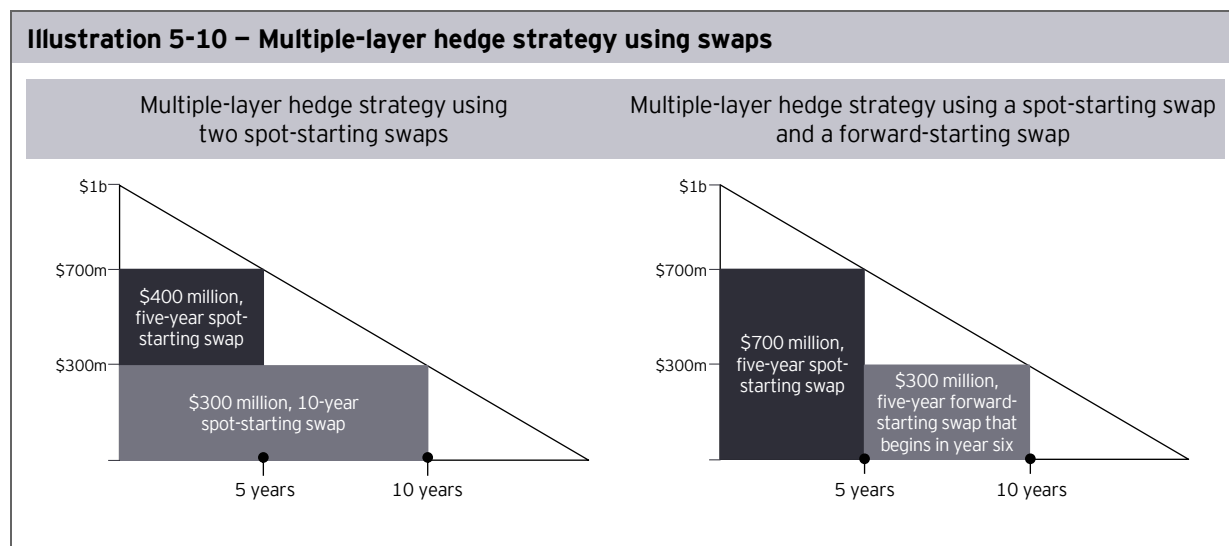
Eligible hedging instruments

When hedging multiple layers within a single closed portfolio, entities have the flexibility to use different types of derivatives and hedge designations to better align their hedge strategies with their risk management objectives. Therefore, an entity could execute multiple-layer hedging strategies using spot-starting swaps, forward-starting swaps, or a combination of both.

For example, consider an entity that is seeking to use a multi-layer hedging strategy to hedge the interest rate risk in a \$1 billion closed portfolio of financial assets, based on its expectations about when prepayments, defaults or sales will occur over different periods of time. If the entity expects \$700 million to remain

¹³² This illustration is based on the example provided in ASC 815-25-55-1C.

outstanding for at least five years and \$300 million to remain outstanding for at least 10 years, it could either use spot-starting swaps to hedge both layers or use a spot-starting swap to hedge the layer expected to be outstanding for years one through five and a forward-starting swap to hedge the layer expected to be outstanding for years six through 10, as shown in the following illustration.



The guidance also allows an entity to use a derivative with a notional amount that changes over time, such as an amortizing notional interest rate swap, as the hedging instrument in a portfolio layer hedge. However, as noted in ASC 815-20-55-14B, an entity that chooses to use an amortizing swap is required to designate the hedge as a single-layer hedging relationship with a single benchmark rate component of the contractual coupon cash flows. Under this strategy, the entity could still apply the similar asset test on a qualitative basis.

How we see it

ASC 815 does not permit an entity to designate different legs of a single derivative instrument in different hedging relationships. Therefore, an amortizing-notional swap cannot be split into a series of individual swaplets to hedge multiple layers within a closed portfolio.

5.3.4A.1.8

Hedge effectiveness assessment and measurement of the hedged item

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Consideration of Prepayment Risk Using the Portfolio Layer Method

815-20-25-118A

In a fair value hedge of interest rate risk designated under the portfolio layer method in accordance with paragraph 815-20-25-12A, an entity may exclude prepayment risk (if applicable) when measuring the change in fair value of the hedged item attributable to interest rate risk.

ASC 815-20-25-118A states that when measuring the change in fair value of the hedged item attributable to interest rate risk under the portfolio layer method, an entity may exclude prepayment risk associated with the hedged item (if applicable). Credit risk would also be excluded from the measurement of the hedged item because the hedged layer is only being hedged for changes in fair value attributable to changes in the benchmark interest rate.

The ability to exclude prepayment risk (when applicable) in the measurement of the change in fair value of the hedged layer attributable to changes in the benchmark interest rate, coupled with application of the partial-term hedge guidance and the guidance on using the benchmark rate component of contractual coupon cash flows when measuring the change in fair value of the hedged item as described in section 5.3.4A.1.6 should result in portfolio layer method hedges being highly effective as the key terms of the hedging relationship should essentially match.

How we see it

The guidance in ASC 815-25-35-13B on determining the assumed maturity of the hedged item in a partial-term fair value hedge of interest rate risk allows an entity to measure the change in fair value of the hedged item using an assumed term that ends at the end of the designated hedge period.

As a result, the assumed term of the hedged item will match the maturity date of the hedging instrument resulting in alignment between the hedging instrument and the hedged item.

This guidance applies to all partial-term fair value hedges of interest rate risk, not just those under the portfolio layer method. For example, it would apply when a company wants to hedge fixed-rate debt up to a clean-up call date that is not the end of a coupon period for the debt.

5.3.4A.2

Accounting for the hedge basis adjustment in a portfolio layer method hedge

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Subsequent Measurement

Changes in Fair Value in General

815-25-35-1

Gains and losses on a qualifying **fair value hedge** shall be accounted for as follows:

c. For one or more existing **hedged layer** or layers that are designated under the portfolio layer method in accordance with paragraph 815-20-25-12A, the gain or loss (that is, the change in fair value) on the hedged item attributable to the hedged risk shall not adjust the carrying value of the individual beneficial interest or individual assets in or removed from the closed portfolio. Instead, that amount shall be maintained on a closed portfolio basis and recognized currently in earnings.

Impairment or Credit Losses of Hedged Item

815-25-35-10

An asset or liability that has been designated as being hedged and accounted for pursuant to this Section remains subject to the applicable requirements in generally accepted accounting principles (GAAP) for assessing impairment or credit losses for that type of asset or for recognizing an increased obligation for that type of liability. Those impairment or credit loss requirements shall be applied after hedge accounting has been applied for the period and the carrying amount of the hedged asset or liability has been adjusted pursuant to paragraph 815-25-35-1(b). A portfolio layer method basis adjustment that is maintained on a closed portfolio basis for an existing hedge in accordance with paragraph 815-25-35-1(c) shall not be considered when assessing the individual assets or individual beneficial interest included in the closed portfolio for impairment or credit losses or when assessing a portfolio of assets for impairment or credit losses. An entity may not apply this guidance by analogy to other components of amortized cost basis. Because the hedging instrument is recognized separately as an asset or liability, its fair value or expected cash flows shall not be considered in applying those impairment or credit loss requirements to the hedged asset or liability.

Interaction with Loan Impairment

815-25-35-11

This Subtopic implicitly affects the measurement of credit losses under Subtopic 326-20 on financial instruments measured at amortized cost by requiring the present value of expected future cash flows to be discounted by the new effective rate based on the adjusted amortized cost basis in a hedged loan. Paragraph 326-20-55-9 requires that, when the amortized cost basis of a loan has been adjusted under fair value hedge accounting, the effective rate is the discount rate that equates the present value of the loan's future cash flows with that adjusted amortized cost basis. That paragraph states that the adjustment under fair value hedge accounting for changes in fair value attributable to the hedged risk under this Subtopic shall be considered to be an adjustment of the loan's amortized cost basis. As discussed in that paragraph, the loan's original effective interest rate becomes irrelevant once the recorded amount of the loan is adjusted for any changes in its fair value. Because paragraph 815-25-35-10 requires that the loan's amortized cost basis be adjusted for hedge accounting before the requirements of Subtopic 326-20 are applied, this Subtopic implicitly supports using the new effective rate and the adjusted amortized cost basis. A portfolio layer method basis adjustment that is maintained on a closed portfolio basis for an existing hedge in accordance with paragraph **815-25-35-1(c)** shall not adjust the amortized cost basis of the individual assets or individual beneficial interest included in the closed portfolio. An entity may not apply this guidance by analogy to other components of amortized cost basis.

815-25-35-12

This guidance applies to all entities applying Subtopic 326-20 to financial assets that are hedged items in a fair value hedge, regardless of whether those entities have delayed amortizing to earnings the adjustments of the loan's amortized cost basis arising from fair value hedge accounting until the hedging relationship is dedesignated. The guidance on recalculating the effective rate is not intended to be applied to all other circumstances that result in an adjustment of a loan's amortized cost basis and is not intended to be applied to the individual assets or individual beneficial interest in an existing portfolio layer method hedge closed portfolio.

ASC 815-25-35-1(c) requires that the fair value hedge basis adjustment (i.e., the change in fair value of the hedged item attributable to the hedged risk) in an existing portfolio layer method hedge does not adjust the carrying value of the individual beneficial interests or individual assets in or removed from the closed portfolio. Instead, the basis adjustment is required to be maintained on a closed portfolio basis. Additionally, ASC 815-25-35-12 states that the guidance in ASC 815-25-35-11 on recalculating the effective rate is not intended to be applied to individual assets or individual beneficial interests in an existing portfolio layer method hedge.

While the basis adjustment doesn't change the carrying amount of the individual assets in the closed portfolio, in certain circumstances an entity may need to allocate the basis adjustment to different line items (e.g., if the assets in the portfolio are presented in different line items in the statement of financial position). Refer to section 8.13.4.1 for additional discussion.

Further, an entity is prohibited from considering a basis adjustment maintained on a closed portfolio basis for existing portfolio layer hedges when measuring impairment or credit losses on the assets included in the closed portfolio. However, an entity may not apply this guidance by analogy to other components of the amortized cost basis.

5.3.4A.2.1

*Amortization of basis adjustments***Excerpt from Accounting Standards Codification****Derivatives and Hedging – Fair Value Hedges***Subsequent Measurement**Changes in Fair Value in General***815-25-35-9**

An adjustment of the carrying amount of a hedged interest-bearing **financial instrument** that is required by paragraph 815-25-35-1(b) and an adjustment that is maintained on a closed portfolio basis in a portfolio layer method hedge in accordance with paragraph 815-25-35-1(c) shall be amortized to earnings. Amortization shall begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

815-25-35-9A

If, as permitted by paragraph 815-25-35-9, an entity amortizes the adjustment to the carrying amount of the hedged item during an existing partial-term hedge of an interest-bearing **financial instrument** or amortizes the basis adjustment in an existing portfolio layer method hedge, the entity shall fully amortize that adjustment by the hedged item's assumed maturity date in accordance with paragraph 815-25-35-13B. For a discontinued hedging relationship, all remaining adjustments to the carrying amount of the hedged item shall be amortized over a period that is consistent with the amortization of other discounts or premiums associated with the hedged item in accordance with other Topics (for example, Subtopic 310-20 on receivables—nonrefundable fees and other costs). See paragraphs 815-25-40-9 through 40-9A for further guidance on accounting for a basis adjustment attributable to a discontinued portfolio layer method hedge.

ASC 815-25-35-9 requires that a fair value basis adjustment that is maintained on a closed portfolio basis in a portfolio layer method hedge be amortized to earnings. That amortization must begin no later than when the hedged item ceases to be adjusted for changes in its fair value attributable to the risk being hedged.

However, an entity may choose to begin amortizing the basis adjustment on an outstanding portfolio layer hedge at any point before ceasing the hedging relationship. In these instances, ASC 815-25-35-9A indicates that the basis adjustment should be fully amortized by the hedged item's assumed maturity date.

If a portfolio layer method hedge is discontinued or partially discontinued, the accounting treatment and amortization of hedge basis adjustments will differ depending on whether the discontinuation of the hedge is the result of a voluntary de-designation or anticipated breach versus an actual breach. Refer to section 5.3.4A.3 below for additional discussion of the treatment of the fair value basis adjustments upon discontinuation of a portfolio layer method hedge.

5.3.4A.3

Dedesignation of portfolio layer method hedges**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Fair Value Hedges***Derecognition**Hedged Item Is Designated under the Portfolio Layer Method**Voluntary Dedesignations***815-25-40-7A**

An entity may elect to discontinue (or partially discontinue) hedge accounting prospectively for all or a portion of the **hedged layer** for one or more hedging relationships associated with the closed portfolio at any time if a breach has not occurred in accordance with paragraph 815-25-40-8(b) and a breach is not anticipated in accordance with paragraph 815-25-40-8(a). If multiple hedged layers are associated with the closed portfolio, the entity may voluntarily elect to dedesignate (or partially dedesignate) any hedges associated with that closed portfolio.

*Accounting for Basis Adjustments***815-25-40-9**

If a portfolio layer method hedging relationship is discontinued (or partially discontinued) in a voluntary dedesignation in accordance with paragraph 815-25-40-7A or in anticipation of a breach in accordance with paragraph 815-25-40-8(a), the basis adjustment associated with the dedesignated amount as of the discontinuation date shall be allocated to the remaining individual assets in the closed portfolio that supported the dedesignated hedged layer using a systematic and rational method. An entity shall amortize those amounts over a period that is consistent with the amortization of other discounts or premiums associated with the respective assets in accordance with other Topics (for example, Subtopic 310-20 on receivables-nonrefundable fees and other costs).

An entity may choose to discontinue or partially discontinue hedge accounting prospectively for all or a portion of any hedged layer associated with a closed portfolio at any time if a breach has not occurred. If multiple hedged layers are associated with the closed portfolio, the entity may voluntarily elect to dedesignate or partially dedesignate any hedges associated with that closed portfolio.

If an entity fully or partially discontinues a hedging relationship voluntarily, it would allocate the basis adjustments associated with the dedesignated amount to the remaining individual assets in the closed portfolio that supported the dedesignated hedged layer or layers using a systematic and rational method. The entity would then amortize the allocated basis adjustments over a period that is consistent with the amortization of other discounts or premiums associated with the respective assets in accordance with other US GAAP.

However, if an entity anticipates that a breach of a hedged layer or layers will occur (i.e., the hedged layer(s) are no longer anticipated to be outstanding for the period(s) hedged) or if an actual breach occurs (i.e., the outstanding amount of the closed portfolio is less than the amount of hedged layer or layers in aggregate), it is required to fully or partially discontinue hedge accounting for one or more hedging relationships to bring the closed portfolio back into compliance with the requirements of portfolio layer method hedging. Refer to sections 5.3.4A.3.2 and 5.3.4A.3.3 for additional discussion on the accounting upon the dedesignation of portfolio layer method hedges resulting from anticipated and actual breaches, respectively.

When an entity has designated multiple hedged layers within a single closed portfolio, and there is either an anticipated or actual breach, the entity is required to determine which hedged layer or layers to discontinue or partially discontinue in accordance with an accounting policy election as discussed below.

5.3.4A.3.1

Establishing a dedesignation accounting policy

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Derecognition

Hedged Item Is Designated under the Portfolio Layer Method

815-25-40-8A

In the event of either an anticipated breach (as described in paragraph 815-25-40-8(a)) or a breach that has occurred (as described in paragraph 815-25-40-8(b)), if multiple hedged layers are associated with a closed portfolio, an entity shall determine which hedge or hedges to discontinue (or partially discontinue) in accordance with an accounting policy election. That accounting policy election shall specify a systematic and rational approach to determining which hedge or hedges to discontinue (or partially discontinue). An entity shall establish its accounting policy no later than when it first anticipates a breach or when a breach has occurred (whichever comes first). After an entity establishes its accounting policy, it shall consistently apply its accounting policy to all portfolio layer method breaches (anticipated and occurred).

In accordance with ASC 815-25-40-8A, an entity is required to establish its accounting policy no later than when it first anticipates that a breach will occur or when an actual breach has occurred (whichever comes first). This accounting policy is not required to be included in the individual hedge documentation related to a specific hedging relationship.

The accounting policy must specify a systematic and rational approach that the entity will use to determine which hedged layer or layers will be discontinued or partially discontinued to bring the closed portfolio back into compliance with the requirements of portfolio layer method hedging.

Once an entity establishes its accounting policy, this policy must be consistently applied to all future portfolio layer method breaches (either anticipated or actual). Any subsequent changes to the established accounting policy for portfolio layer method dedesignations will be subject to the guidance in ASC 250-10-45-1 on a change in accounting principle.

How we see it

Because risk management objectives may vary among entities, we expect that different entities may develop different accounting policies for determining the hedged layer or layers to be discontinued in the event of a breach when multiple layers are hedged in a single closed portfolio. While an entity's ability to create its own accounting policy provides it with some flexibility, any accounting policy needs to be specific enough for the entity to objectively determine which hedged layer or layers to discontinue or partially discontinue.

5.3.4A.3.2

Dedesignation due to an anticipated breach**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Fair Value Hedges*****Derecognition******Hedged Item Is Designated under the Portfolio Layer Method******Breaches of the Closed Portfolio*****815-25-40-8**

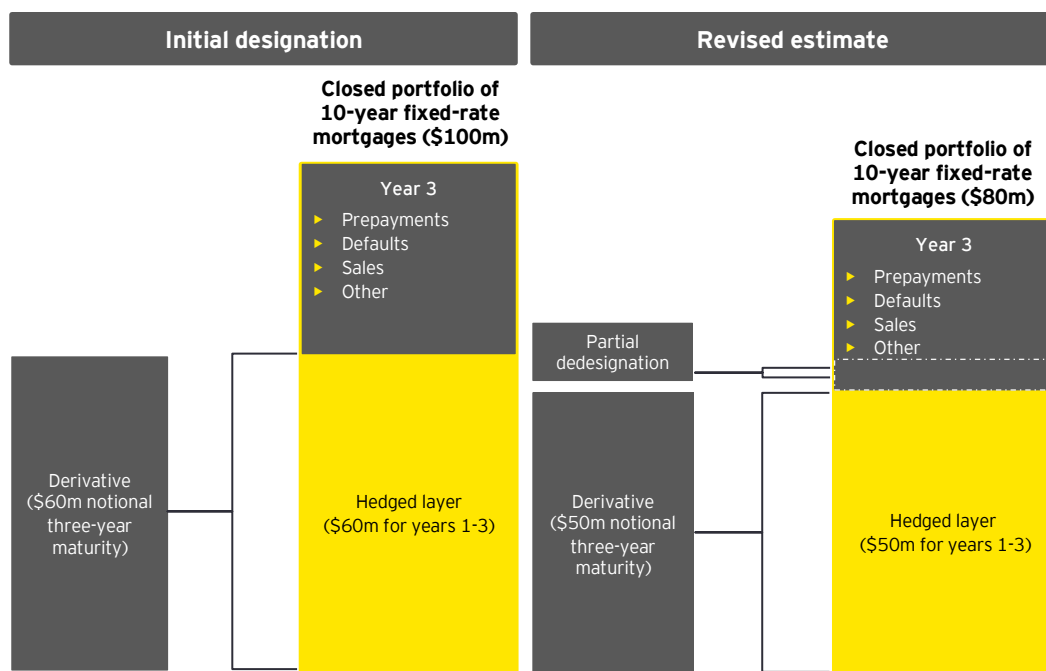
For one or more hedging relationships designated under the portfolio layer method in accordance with paragraph 815-20-25-12A, an entity shall discontinue (or partially discontinue) hedge accounting in the following circumstances:

- a. If the entity cannot support on a subsequent testing date that the hedged layer or layers are anticipated to be outstanding for the designated hedge period in accordance with paragraph 815-25-35-7A (that is, a breach is anticipated), it shall discontinue (or partially discontinue) hedge accounting for one or more hedging relationships for the portion of the hedged item that is no longer anticipated to be outstanding for the designated hedge period.

If the entity can no longer support that the hedged layer or layers are anticipated to be outstanding for the designated hedge period in accordance with the requirement in ASC 815-25-35-7A, it is required to discontinue or partially discontinue hedge accounting for one or more hedged layers associated with the closed portfolio for the portion of the hedged item that is no longer anticipated to be outstanding for the designated hedge period. That is, the entity is required to reduce the aggregate hedged item to an amount anticipated to remain outstanding for the designated hedge period(s).

The entity would allocate the basis adjustments associated with the dedesignated amount as of the discontinuation date to the remaining individual assets in the closed portfolio that supported the dedesignated hedged layer or layers using a systematic and rational method. The entity would then amortize those amounts over a period that is consistent with the amortization of other discounts or premiums associated with the respective assets in accordance with other US GAAP. This is consistent with treatment of the fair value hedge basis adjustment when a portfolio layer method hedge is voluntarily dedesignated as discussed in section 5.3.4A.3.

The following illustrations show how an entity could discontinue hedge accounting only for the portion of the hedged item no longer expected to be outstanding (i.e., partial dedesignation) under a single-layer strategy and a multiple-layer hedge strategy.

Illustration 5-11 - Partial dedesignation of portfolio layer hedge due to an anticipated breach – hedging a single layer


Based on an analysis performed at hedge inception using its current expectations of prepayments, defaults and sales, Entity A initially designated \$60 million of a \$100 million closed portfolio of 10-year fixed-rate mortgages as the hedged item in a portfolio layer hedging relationship for three years (i.e., years 1-3). That is, Entity A's analysis supported the expectation that \$60 million in loans would remain outstanding for at least three years (the designated hedge period). The entity then entered into a three-year plain vanilla interest rate swap with a notional of \$60 million to hedge this single layer.

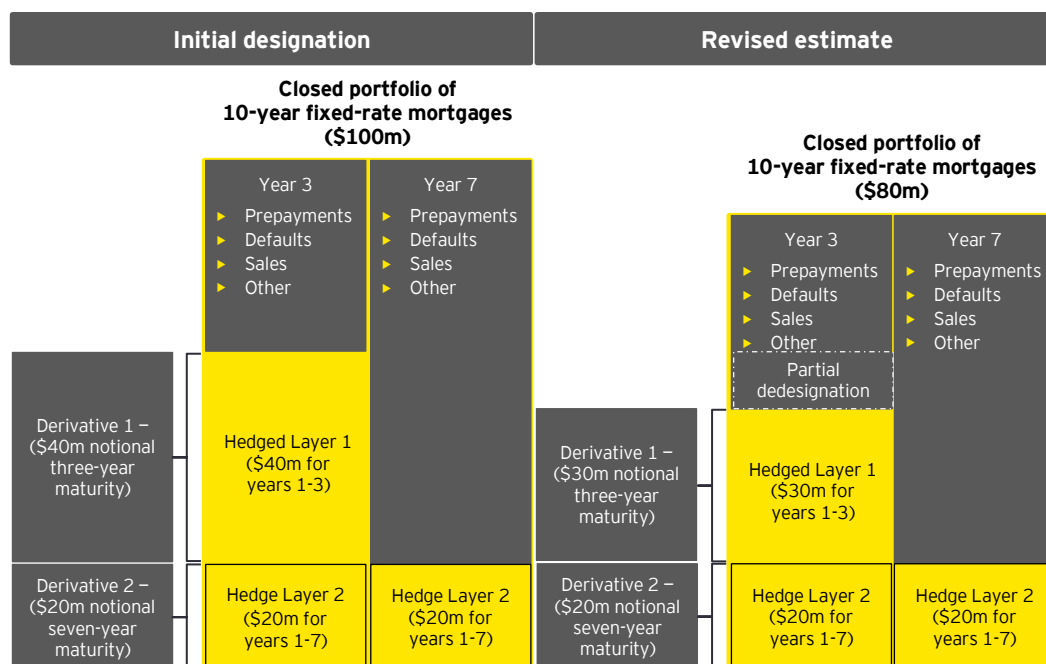
With the passage of time, the value of the closed portfolio decreased to \$80 million from \$100 million as loans were prepaid, sold or defaulted. Based on these results and Entity A's revised expectations of future prepayments, defaults and sales, Entity A determined on a subsequent hedge assessment date that only \$50 million in loans in the closed portfolio would remain outstanding for the period hedged. As a result, Entity A anticipates that there will be a breach during the remaining designated hedge period.

To resolve the anticipated breach, Entity A partially dedesignates \$10 million of the single hedging relationship by reducing both the single-layer hedged item amount and the notional amount of the swap to \$50 million to bring the hedging relationship back into compliance with requirements of portfolio layer method hedging.

Entity A would then allocate the portion of the basis adjustment associated with the discontinued amount of the three-year single-layer hedge to all of the remaining assets in the closed portfolio using a systematic and rational method at the dedesignation date. In this example, the basis adjustment is allocated in this manner because all of the assets in the closed portfolio supported the partially dedesignated hedged layer (i.e., the time to maturity for all assets in the portfolio exceed the remaining hedged period). Note: In other fact patterns, the basis adjustment may not be allocated to all the remaining assets in the closed portfolio (e.g., when the closed portfolio includes assets with contractual maturity dates before the end of the designated hedge period).

Subsequently, in accordance with ASC 815-25-40-9, Entity A would amortize those basis adjustments over a period that is consistent with the amortization of any other premium or discount on the mortgage loans to which they were allocated.

Illustration 5-12 - Partial dedesignation of portfolio layer hedge due to an anticipated breach – hedging multiple layers



Based on an analysis performed at hedge inception using its current expectations of prepayments, defaults and sales, Entity A initially designated two hedged layers on a \$100 million closed portfolio of 10-year fixed-rate mortgage loans as follows:

- ▶ Hedged Layer 1 – \$40 million in a three-year hedging relationship (i.e., years 1-3)
- ▶ Hedged Layer 2 – \$20 million in a seven-year hedging relationship (i.e., years 1-7)

That is, Entity A's analysis supported the expectation that \$60 million in loans would remain outstanding for at least three years, and \$20 million would remain outstanding for at least seven years (the designated hedged periods). The expectation for the amount outstanding for years 1-3 was performed considering the aggregate amount of both hedged layers in the period during which the two hedges overlap.

The entity then entered into a three-year plain vanilla interest rate swap with a notional of \$40 million to hedge Layer 1 and a seven-year plain vanilla interest rate swap with a notional of \$20 million to hedge Layer 2.

On a subsequent assessment date, the value of the closed portfolio decreased to \$80 million from \$100 million as loans were prepaid, sold or defaulted. Based on these results and Entity A's revised expectations of future prepayments, defaults and sales, Entity A determined that \$20 million in loans would still be outstanding at the end of year 7; however, only \$50 million in loans would still be outstanding in the closed portfolio at the end of year 3, which is below the aggregate amount of both hedged layers (\$60 million). As a result, Entity A anticipates that there will be a breach during years 1-3.

Because Entity A designated multiple hedged layers associated with a closed portfolio and this is the first time it identified a breach (anticipated or actual), Entity A is required to establish its accounting policy for determining which hedge or hedges to dedesignate in the instances of an anticipated or actual breach at this time. Entity A's accounting policy states that in instances when more than one hedged layer is impacted by a breach, it would dedesignate or partially dedesignate the hedged layer(s) in accordance with a sequence based on the shortest time remaining until the hedged layers' assumed maturity dates.

In accordance with its accounting policy, Entity A partially dedesignates \$10 million of the hedging relationship for Layer 1 because it has the shortest time remaining until its assumed maturity date (i.e., year 3), by reducing both the designated hedged layer amount and the notional amount of the swap designated as the hedging instrument to \$30 million to bring the hedging relationship (Layer 1) into compliance with the requirements of portfolio layer method hedging. Hedged Layer 2 is not affected.

Entity A would then allocate the portion of the basis adjustment associated with the discontinued amount of the three-year hedged layer (Layer 1) to all of the remaining assets in the closed portfolio using a systematic and rational method at the dedesignation date. In this example, the basis adjustment is allocated in this manner because all of the assets in the closed portfolio are deemed to support the partially dedesignated hedged layer (i.e., the time to maturity for all assets in the portfolio exceed the remaining hedged period for Layer 1). Note: In other fact patterns (e.g., when the closed portfolio includes assets with different contractual maturities), the basis adjustment may not be allocated to all the remaining assets in the closed portfolio but only to those assets that support the hedge layer(s) that is discontinued or partially discontinued.

Subsequently, in accordance with ASC 815-25-40-9, Entity A would amortize those basis adjustments over a period that is consistent with the amortization of any other premium or discount on the mortgage loans to which they were allocated.

5.3.4A.3.3

Dedesignation due to an actual breach

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Derecognition

Breaches of the Closed Portfolio

815-25-40-8

For one or more hedging relationships designated under the portfolio layer method in accordance with paragraph 815-20-25-12A, an entity shall discontinue (or partially discontinue) hedge accounting in the following circumstances:

- b. If on a subsequent testing date the outstanding amount of the closed portfolio of financial assets or one or more beneficial interests is less than the hedged layer or layers (that is, a breach has occurred), the entity shall discontinue (or partially discontinue) hedge accounting for one or more hedging relationships for the portion of the hedged item that is no longer outstanding.

Accounting for Basis Adjustments

815-25-40-9A

For a portfolio layer method hedging relationship that is discontinued because a breach has occurred in accordance with paragraph 815-25-40-8(b), as of the discontinuation date an entity shall:

- a. Determine the portion of the basis adjustment associated with the amount of the hedged layer that exceeds the closed portfolio (that is, the portion of the basis adjustment associated with the breach) using a systematic and rational method and immediately recognize that amount in interest income in accordance with paragraph 815-20-45-1CC
- b. Disclose the information specified in paragraph 815-10-50-5C for the breach.

A closed portfolio may simultaneously have a layer or layers that have been breached and a layer or layers that it anticipates will be breached. In that case, an entity shall apply the guidance in this paragraph for the breach or breaches that have occurred and the guidance in paragraph 815-25-40-9 for the anticipated breach or breaches.

If an entity determines that the outstanding amount of financial assets or one or more beneficial interests secured by portfolio of financial assets in a closed portfolio is less than the aggregate amount of the hedged layer or layers associated with this portfolio, it is required to discontinue or partially discontinue hedge accounting for one or more hedged layers for the portion of the hedged item that is no longer outstanding.¹³³ That is, the entity needs to fully or partially dedesignate one or more hedged layers so that the aggregate amount of hedged layers does not exceed the outstanding amount of the assets in the closed portfolio.

The entity would determine the portion of the basis adjustment associated with the breach (i.e., the amount of the hedged layer(s) that exceeds the outstanding amount of the closed portfolio) using a systematic and rational approach and recognize that amount in interest income immediately.

When an actual breach occurs, an entity should also reevaluate its expectations of the amount of financial assets in the closed portfolio it expects to remain outstanding for the designated hedge periods associated with any outstanding hedged layers, including the hedged layer(s) that were deemed to be affected by the actual breach. If, upon reevaluation, the entity anticipates a breach associated with any layer or layers in the same closed portfolio, it would need to apply the guidance on dedesignations due to an anticipated breach as previously discussed, in addition to applying the guidance above to the breached layer or layers. We believe this will generally result in an entity having to partially dedesignate an amount in excess of the amount of the actual breach, since some further decrease in assets over the remaining hedge period (due to prepayment, default or sale) is likely expected.

5.3.5 Determining whether financial instruments are prepayable

In practice, questions have arisen about which financial instruments would be considered prepayable and therefore fall in the scope of the guidance in ASC 815-20-25-6B and 25-35-13A (i.e., whether changes in the fair values of these hedged items could be measured by considering only how changes in the benchmark interest rate affects the decision to settle these instruments before their scheduled maturities). These questions arose because the Master Glossary of the Codification defines prepayable broadly as “able to be settled by either party before its scheduled maturity.”

The definition of prepayable also affects which financial assets can be hedged under the last-of-layer method (see section 5.3.4 above).

In response to a technical inquiry on the matter, the FASB staff stated that the guidance on hedging prepayable financial instruments (including the guidance on hedging prepayable assets under the last-of-layer method) can be applied to financial instruments with any of the following:

- ▶ Features that are currently exercisable and therefore allow the instrument to be prepaid at any time – One example is a feature that gives the issuer the right to pay off the debt instrument at any time before its scheduled maturity at a premium over its fair value on the date of settlement (e.g., a make-whole provision). The make-whole provision is meant to compensate the investor for lost interest payments due to prepayment. Because changes in interest rates do not affect an issuer’s decision to exercise such a provision, the FASB staff clarified that an entity could conclude qualitatively that this type of feature does not affect the assessment of effectiveness or measurement of the change in fair value of the hedged item attributable to benchmark interest rates.
- ▶ Time-based contingency features that result in the instrument becoming prepayable at some point during the hedging relationship, solely due to the passage of time – For example, this would be the case for an entity hedging a 10-year fixed-rate debt instrument for changes in fair value due to changes in the benchmark interest rate over the contractual life of an instrument that becomes callable in year five.

¹³³ Financial assets that do not support any outstanding hedging relationship in a closed portfolio (i.e., assets with contractual maturity dates before the end of any existing designated hedge period) are not considered when determining whether an actual breach has occurred.

- ▶ Event-based contingency features that result in the instrument becoming prepayable upon the occurrence of a specified event, such as a change in tax law – The FASB staff clarified that these features can be ignored for assessment of hedge effectiveness and measurement purposes until the contingent event occurs. The entity would then consider how changes in only benchmark interest rates would affect the decision to prepay the instrument.
- ▶ Interest rate-related contingency features that result in the instrument becoming prepayable based on the movement in a specified interest rate – The FASB staff clarified that an entity cannot ignore these features before the contingency is triggered. Instead, the entity would need to consider (1) fluctuations in interest rates that could cause the contingent event to occur and (2) the probability of exercise given such an interest rate scenario (considering only the effect of the benchmark interest rate). If the interest rate on which the contingency is based is not the benchmark rate being hedged, the FASB staff indicated that for simplicity, an entity can assume that any spread between the benchmark interest rate and the actual interest rate linked to the contingency is fixed.
- ▶ Conversion features in convertible debt securities if conversion is contractually permitted during the hedging relationship – The FASB staff clarified that this view applies to both callable and noncallable convertible instruments.

However, the FASB staff also stated that contingent acceleration clauses that permit the acceleration of an instrument's contractual maturity due to credit (e.g., the debtor's failure to make timely payment) would not be deemed to be features that make the instrument prepayable for the purposes of applying the guidance in ASC 815-20-25-6B and 25-35-13A. Instead, the change in the hedged item's fair value related to these features may need to consider factors other than interest rates (e.g., credit spreads) that could cause the hedged item to be prepaid. In reaching its view on credit-related contingent acceleration clauses, the FASB staff stated it was concerned about the potential consequences of considering these features to be "prepayable" when entities adopt the FASB's current expected credit loss model in ASU 2016-13.¹³⁴

In addition, if the contingent acceleration clause related to credit is the only feature that enables a financial asset to be settled before its contractual maturity, the asset would not be eligible to be hedged using the last-of-layer method.

5.4

Discontinuing a fair value hedge

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Fair Value Hedges

Derecognition

Discontinuing Hedge Accounting

815-25-40-1

An entity shall discontinue prospectively the accounting specified in paragraphs 815-25-35-1 through 35-6 for an existing hedge if any one of the following occurs:

- a. Any criterion in Section 815-20-25 is no longer met.
- b. The **derivative instrument** expires or is sold, terminated, or exercised.
- c. The entity removes the designation of the **fair value hedge**.

¹³⁴ ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*.

815-25-40-1A

For the purposes of applying the guidance in paragraph 815-25-40-1, a change in the counterparty to a derivative instrument that has been designated as the hedging instrument in an existing hedging relationship would not, in and of itself, be considered a termination of the derivative instrument.

815-25-40-2

In the circumstances discussed in paragraph 815-25-40-1, the entity may elect to designate prospectively a new hedging relationship with a different hedging instrument or, in the circumstances described in (a) and (c) in paragraph 815-25-40-1, a different hedged item or a hedged **transaction** if the hedging relationship meets the criteria specified in Section 815-20-25 for a fair value hedge or a **cash flow hedge**.

Noncompliance with Effectiveness Criterion**815-25-40-3**

In general, if a periodic assessment indicates noncompliance with the effectiveness criterion in paragraphs 815-20-25-75 through 25-80, an entity shall not recognize the adjustment of the carrying amount of the hedged item described in paragraphs 815-25-35-1 through 35-6 after the last date on which compliance with the effectiveness criterion was established.

815-25-40-4

However, if the event or change in circumstances that caused the hedging relationship to fail the effectiveness criterion can be identified, the entity shall recognize in earnings the changes in the hedged item's **fair value** attributable to the risk being hedged that occurred before that event or change in circumstances.

Amounts Excluded from the Assessment of Effectiveness under an Amortization Approach**815-25-40-7**

When applying the guidance in paragraph 815-20-25-83A, any amounts remaining in accumulated other comprehensive income associated with amounts excluded from the assessment of effectiveness shall be recorded in earnings in the current period if the hedged item is derecognized. For all other discontinued fair value hedges, any amounts associated with the excluded component remaining in accumulated other comprehensive income shall be recorded in earnings in the same manner as other components of the carrying amount of the hedged asset or liability in accordance with paragraphs 815-25-35-8 through 35-9A.

If a fair value hedging relationship is discontinued, the hedging derivative (if not terminated, sold or exercised) continues to be measured at fair value with all changes in fair value recorded through earnings as required under ASC 815.¹³⁵ However, the hedged item is not adjusted for further changes in fair value because it is no longer part of a fair value hedging relationship.

Gains and losses on both the derivative and the hedged item while the hedge was in place would have previously been recognized in income. Any adjustments that were made to the hedged item's carrying value to recognize the changes in fair value while the hedge was in place are not immediately recognized in earnings. If the hedged item is a financial instrument, entities are required to begin amortizing the basis adjustments to earnings in accordance with ASC 815-25-35-9. Fair value basis adjustments related to nonfinancial instruments (e.g., inventory) will eventually affect earnings when the hedged item is derecognized (e.g., when the inventory is sold). Any changes in fair value of the hedged item that occur subsequent to the termination of hedge accounting are not recognized until realized, unless required by other US GAAP (e.g., an impairment is indicated).

¹³⁵ When a derivative expires or is sold, terminated or exercised, the asset or liability representing its fair value will be satisfied by a cash payment or receipt.

As discussed in section 5.2.1 above, any amounts remaining in AOCI related to the change in the fair value of components excluded from the assessment of hedge effectiveness are not immediately recognized in earnings. Instead, those amounts are recognized in earnings in the same manner as other components of the carrying amount of the hedged asset or liability (i.e., consistent with treatment of the basis adjustment in a discontinued fair value hedge). However, if the hedged item is derecognized, any remaining amounts in AOCI are recorded in earnings immediately.

If a hedge fails to continue to qualify as highly effective, the entity must determine whether it can identify the event or change in circumstances that caused the hedge to fail to qualify. If the event can be identified, the entity recognizes the changes in the hedged item's fair value that occurred prior to that event in earnings, following the fair value hedge accounting model. Changes in the value of the hedged item subsequent to the date the hedge ceased to qualify as highly effective would not be recorded.

If the entity cannot identify the specific date the hedge failed to qualify, it should not record the fair value adjustment of the carrying amount of the hedged item after the last date when effectiveness was previously assessed. As discussed in chapter 4, effectiveness is required to be assessed at least quarterly.

How we see it

For example, assume ABC Company evaluates hedge effectiveness near the end of the quarter. If the hedge was highly effective at the end of the previous quarter but not at the end of the current quarter, ABC Company would not recognize any changes in fair value of the hedged item for the current quarter unless the specific point in time the hedge failed to qualify can be identified.

The guidance in ASC 815-25-40-4 is clear that if the date of the event or change in circumstances that lead to noncompliance is known, the entity *must* apply hedge accounting up to the date of the event that caused noncompliance. An entity may not disregard a known event and discontinue hedge accounting as of the end of the previous quarter or last effectiveness assessment if the timing of the event that caused noncompliance is known.

When a hedge fails the retrospective assessment of effectiveness in a particular quarter, it does not qualify for hedge treatment in that quarter. However, if the hedge is expected to be highly effective going forward, the entity could continue to apply hedge accounting prospectively. This could occur when the entity uses different methods for the retrospective assessment and prospective assessment.

For example, the entity may apply a dollar-offset approach for its retrospective assessment and a regression analysis for its prospective assessment. The result of one assessment would not affect the conclusion of the other. However, if the hedge continues to not be highly effective on a retrospective basis in ongoing periods, the entity's ability to continue to assume it will be effective in future quarters would become questionable.

5.5

Examples of fair value hedges

The following examples illustrate the accounting for fair value hedges:

- ▶ Example 1: Fair value hedge of a firm commitment using a forward contract
- ▶ Example 2: Fair value hedge of a firm commitment using a futures contract
- ▶ Example 3: Partial-term fair value hedge of fixed-rate debt using an interest rate swap designated after the issuance of the debt instrument (perfect offset)
- ▶ Example 4: Fair value hedge of the LIBOR swap rate in a fixed-rate note (use of benchmark component)
- ▶ Example 5: Fair value hedge of a commodity inventory using futures contracts

- ▶ Example 6: Fair value hedging relationship no longer qualifies as highly effective
- ▶ Example 7: Hedging the fair value of LIFO inventory through the use of a forward contract
- ▶ Example 8: Discontinuation of a fair value hedge of fixed-rate debt
- ▶ Example 9: Interaction between measurement of credit losses and fair value hedge of a fixed-rate loan receivable (after the adoption of ASU 2016-13)

Example 1: Fair value hedge of a firm commitment using a forward contract

JewelryCo is a manufacturer of gold rings and necklaces. On 1 July 20X1, JewelryCo enters into a firm commitment to purchase 1,000 troy ounces of gold on 31 December 20X1 in New York at the current forward rate of \$310/troy ounce. (The firm commitment is not accounted for as a derivative contract because it qualifies for, and JewelryCo has elected, the NPNS scope exception in ASC 815.) JewelryCo enters into the firm commitment because its supplier requires a fixed-price contract. However, it would prefer to pay the market price at the time of delivery and record the gold inventory at whatever the market price will be on 31 December 20X1.

Therefore, on 1 July 20X1, JewelryCo enters into a six-month forward contract to sell 1,000 troy ounces of gold on 31 December 20X1, in New York at the current forward rate of \$310/troy ounce. Thus, the forward contract essentially “unlocks” the firm commitment. The forward contract requires net cash settlement on 31 December 20X1 and has a fair value of zero at inception. JewelryCo and the derivative counterparty are of comparable creditworthiness and the initial CVA is negligible. JewelryCo’s formal documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the fair value of the firm commitment from changes in the market price of gold. Changes in the fair value of the forward contract are expected to be highly effective in offsetting changes in the overall fair value of the entire firm commitment. |
| Date of designation | 1 July 20X1 |
| Hedging instrument | Forward contract to sell 1,000 troy ounces of gold in New York on 31 December 20X1 for \$310/troy ounce |
| Hedged item | Firm commitment to buy 1,000 troy ounces of gold in New York on 31 December 20X1 for \$310/troy ounce. The firm commitment qualifies for the normal purchase exception. |
| How hedge effectiveness will be assessed | <p>Hedge effectiveness (both prospective and retrospective) will be assessed based on a comparison of the overall changes in fair value of the forward contract (i.e., based on changes in the 31 December 20X1 forward price) and changes in the fair value of the firm commitment to purchase gold (also based on changes in the New York forward price), as expressed by a cumulative dollar-offset ratio. The company will assess effectiveness based on changes in the forward price.</p> <p>At inception, because the critical terms of the forward contract and firm commitment coincide (such as dates, quantities, delivery location and underlying commodity), the company expects the hedge to be highly effective against changes in the overall fair value of the firm commitment. However, changes in the credit risk of both counterparties in the fair value measurement of the forward contract and of the hedger and the supplier in the fair value measurement of the firm commitment (the hedged item) will likely cause some mismatch (between the fair value of the forward contract and that of the firm commitment) that needs to be considered (refer to discussion of hedge effectiveness in chapter 4). The hedge meets the criteria for a fair value hedge of a firm commitment.</p> |

The following chart outlines the key assumptions by relevant date over the period of the hedge (spot prices and forward prices show cost per troy ounce of gold):

| Key assumptions | | | | |
|------------------------|-------------------|--|---|--|
| Date | Spot price | Forward price for settlement on 31 Dec 20X1 | Fair value of forward contract (asset) | Fair value of firm commitment (liability) |
| 1 July 20X1 | \$ 300 | \$ 310 | \$ – | \$ – |
| 30 September 20X1 | 292 | 297 | 12,708 ¹³⁶ | (12,740) ¹³⁷ |
| 31 December 20X1 | 285 | 285 | 25,000 ¹³⁸ | (25,000) |

Note that the changes in fair value of the forward contract are highly effective in offsetting the assumed changes in fair value of the firm commitment (it can be assumed that the forward price is the same for the firm commitment as it is for the forward contract). In addition, because JewelryCo is assessing effectiveness based on changes in the forward price, the changes in the spot price are irrelevant in this example. In this example, because the forward price has decreased, the commitment to buy gold at the higher price represents a liability.

On 1 July 20X1, no entry is required because the fair value of the forward contract is zero at hedge inception (no premium is paid or received at inception because the terms of the forward contract are at the current forward price).

On 30 September 20X1, JewelryCo makes the following entries to record the changes in fair value of the forward contract and the firm commitment:

| | | | |
|--|-----------|--|-----------|
| Forward contract (asset) | \$ 12,708 | | |
| Cost of goods sold | | | \$ 12,708 |
| To recognize the change in the fair value of the forward contract. | | | |
| Cost of goods sold | \$ 12,740 | | |
| Firm commitment (liability) | | | \$ 12,740 |
| To recognize the change in the fair value of the firm commitment. | | | |

The cumulative dollar-offset ratio as of the assessment on 30 September 20X1 is: $(\$12,708/\$12,740) = 99.7\%$. This is within the 80% to 125% range considered to be “highly effective.”

On 31 December 20X1, the forward contract and the firm commitment mature. The following journal entries are required:

| | | | |
|--|-----------|--|-----------|
| Forward contract | \$ 12,292 | | |
| Cost of goods sold | | | \$ 12,292 |
| To recognize the change in the fair value of the forward contract. (Calculated as \$25,000 fair value of the contract at the end of the period less \$12,708 fair value at the beginning of the period.) | | | |

¹³⁶ The fair value of the forward contract can be estimated by (1) multiplying the change in the forward price since inception of the contract by the notional amount of the contract and (2) discounting that amount at an appropriate rate for the remaining term of the forward. At 30 September 20X1, the calculation is as follows: $\$12,808 = (\$310 - \$297) \times 1,000$ ounces of gold, discounted at 6% (assumed to be an appropriate rate) for three months. Because the forward price has decreased, the value of the derivative has increased and, therefore, represents an asset. In addition, the company determined that a CVA of (\$100) should be included in the fair value measurement of the forward contract, resulting in a fair value of \$12,708 as of 30 September 20X1.

¹³⁷ The fair value of the firm commitment before consideration of the company's own nonperformance risk is (\$12,808). A reduction of (\$68) to the fair value of the liability reflects an increase in the company's own nonperformance risk.

¹³⁸ Calculation at 31 December 20X1: $\$25,000 = (\$310 - \$285) \times 1,000$. (No discounting is required on 31 December 20X1 because the forward contract is at maturity.)

| | | | |
|--------------------|----|--------|-----------|
| Cost of goods sold | \$ | 12,260 | |
| Firm commitment | | | \$ 12,260 |

To recognize the change in the fair value of the firm commitment. (Calculated as \$25,000 fair value of the contract at the end of the period less \$12,740 fair value at the beginning of the period.)

The cumulative dollar-offset ratio as of the assessment date on 31 December 20X1 is: $(\$25,000/\$25,000) = 100\%$. The forward is perfectly effective in offsetting changes in the overall fair value of the firm commitment.

| | | | |
|------------------|----|--------|-----------|
| Cash | \$ | 25,000 | |
| Forward contract | | | \$ 25,000 |

To record the cash settlement of the forward contract.

| | | | |
|----------------------------|----|---------|------------|
| Gold inventory | \$ | 310,000 | |
| Accounts payable (or cash) | | | \$ 310,000 |

To record the purchase of 1,000 troy ounces of gold at the \$310/troy ounce contracted price.

| | | | |
|-----------------|----|--------|-----------|
| Firm commitment | \$ | 25,000 | |
| Gold inventory | | | \$ 25,000 |

To derecognize the firm commitment and adjust the carrying amount of the gold inventory.

Effect of the hedge on the income statement

In this example, the loss on the firm commitment was offset by the gain on the forward contract. While there were differences in changes in the credit valuation adjustment on the forward contract and on the hedged firm commitment during the life of the hedge, those differences netted to zero by the final day of the hedge. However, the differences between the hedged firm commitment and the hedging instrument result in some volatility to cost of goods sold in each period (prior to the sale of the gold) because the entire change in fair value of the forward contract and the firm commitment is required to be recorded in that income statement line.

Over the life of the hedging relationship, the total net effect on net income is zero. However, as a result of the hedge, the gold inventory is initially reported at \$285,000 rather than \$310,000. The \$285,000 is composed of the \$310,000 paid to the gold supplier less the \$25,000 gain from the hedge. It reflects the spot rate in effect on 31 December 20X1, and is consistent with JewelryCo's strategy to effectively acquire the inventory at the market price on the date of delivery from the supplier. JewelryCo will benefit from the hedge in future periods through a lower cost of goods sold as the inventory is used in its production cycle and its finished product (jewelry) is sold.

Example 2:

Fair value hedge of a firm commitment using a futures contract

On 1 January 20X1, a gold mining operation enters into a fixed-price contract to deliver 100 troy ounces of gold on 30 June 20X1 to a customer in London at a price of \$310/troy ounce, the forward price of gold on 1 January 20X1 for delivery in London on 30 June 20X1. (The firm commitment is not accounted for as a derivative contract because it qualifies for, and the company has elected, the NPNS scope exception in ASC 815.) The company would have preferred for the sales contract to have been at the market price on the date of delivery, but as a concession to its customer offered it a fixed-price contract. To hedge against the potential opportunity loss in revenue due to an increase in gold prices, on 1 January 20X1, the company enters into a New York Mercantile Exchange (NYMEX) futures contract to purchase 100 troy ounces at a price of \$300/troy ounce for delivery in June. The NYMEX contract requires delivery in New York.

The company's strategy is that, because it is concerned that prices will go up between now and delivery in June, the "long" futures contract (contract to buy) effectively eliminates the risk of being committed to a sales price over the next six months at the 1 January price. If prices do go up over the next six months, the fair value of the firm sales commitment will decline because it will be at a below-market price, but the company will benefit from the hedge as the fair value of the futures contract increases.

If prices decline, the company will benefit from an increase in value of its firm commitment but experience a loss from the hedge. The company is accepting some "basis" risk in that it is assuming that the NYMEX price will fluctuate consistently with the London price over the next six months.¹³⁹ To the extent that the two markets do not fluctuate consistently, a mismatch will result in earnings. However, the company must have the expectation that market movements in the two locations will be correlated enough that the futures contract will be highly effective as a hedge. The company's designation is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the fair value of the firm commitment from changes in the market price of gold. Changes in the fair value of the NYMEX gold futures contract are expected to be highly effective in offsetting changes in the fair value of the entire firm commitment contract caused by changes in the London gold price. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | NYMEX long futures contract for 100 troy ounces of gold in New York at a price of \$300/troy ounce on 30 June 20X1. |
| Hedged item | Firm commitment to deliver 100 troy ounces of gold in London at a price of \$310/troy ounce on 30 June 20X1. The firm commitment qualifies for the normal sales exception. |
| How hedge effectiveness will be assessed | Hedge effectiveness (both prospective and retrospective) will be assessed based on a cumulative dollar-offset ratio comparison of the overall changes in fair value of the futures contract traded on NYMEX and changes in the fair value of the gold based on changes in the London forward price. The use of a six-month NYMEX futures contract to hedge against changes in the London forward price would have been highly effective over the last six months of 20X0 as the London forward price has increased \$50, while the NYMEX futures price increased \$49. ¹⁴⁰ (Refer to discussion of hedge effectiveness in chapter 4.) The hedge meets the criteria for a fair value hedge of a firm commitment. |

At 31 March 20X1, the London forward price for delivery on 30 June 20X1 is \$350 and the June NYMEX futures price is \$345. The fair value of the futures contract is \$4,500¹⁴¹ (\$45 increase in NYMEX futures price times 100 troy ounces). However, the firm commitment has decreased in value because the London forward price has risen \$40/troy ounce.

¹³⁹ "Basis risk" is the risk that a price difference is created because of differences in a commodity delivery location, quality or grade of commodity, or other commodity-specific variable. For example, an entity stores natural gas in Houston, Texas, but it hedges its inventory using natural gas futures contracts based on delivery of natural gas at the Henry Hub gas collection point in Louisiana. Thus, to the extent there is a difference in price of natural gas in Houston and that underlying the Henry Hub-based futures contract, the difference relates to locational differences such as transportation costs and supply and demand at the different locations. Interest rate instruments can also have basis differences (e.g., different variable-rate indexes, different credit risk, different terms).

¹⁴⁰ As a practical matter, for non-perfect hedges, entities should justify why they expect the derivative to be highly effective based on prior history as well as how they will assess effectiveness in the future.

¹⁴¹ Futures are exchange-traded derivatives, meaning that the exchanges act as the counterparty on all contracts, effectively dispersing the exchange's nonperformance risk among the entire membership of the exchange. Additionally, futures are margined daily in that settlement reflecting the change in fair value of the derivative contract takes place daily. Although credit risk may not be eliminated completely, credit exposure associated with both parties to a futures contract is minimal. Accordingly, no CVA is factored into the fair value of futures contracts in this example. For purposes of this example, nonperformance risk associated with the firm commitment is also assumed to be nil and has therefore been ignored.

Through the first quarter of 20X1, the company would have made entries (ignoring margin requirements) totaling the following:

| | | | |
|---|----|-------|----------|
| New York gold futures contract | \$ | 4,500 | |
| Sales | | | \$ 4,500 |
| To recognize change in the fair value of futures contract. | | | |
| Sales | \$ | 4,000 | |
| Firm commitment (liability) | | | \$ 4,000 |
| To recognize the change in the fair value of the firm contract to sell gold at a price of \$310 when the current forward price is \$350/troy ounce. | | | |

The net effect of the above entries is an increase in income of \$500 due to differences in the changes in fair value of the firm commitment vs. the changes in fair value of the NYMEX futures contract. This difference can be calculated as follows:

| | | |
|--|----|---------------------|
| Change in New York futures price (\$345 – \$300) | \$ | 45 |
| Change in London forward price (\$350 – \$310) | | <u>40</u> |
| Difference | \$ | 5 |
| | | <u>x 100 ounces</u> |
| Net effect on earnings | \$ | 500 |

If there were no further changes in the London forward price or NYMEX futures price, the entries would unwind on 30 June as follows:

| | | | |
|---|----|--------|-----------|
| Cash | \$ | 4,500 | |
| New York gold futures contract | | | \$ 4,500 |
| To recognize settlement of futures contract. | | | |
| Cash | \$ | 31,000 | |
| Firm commitment (liability) | | 4,000 | |
| Sales | | | \$ 35,000 |
| To recognize sale of gold contracted at \$310/troy ounce but hedged to forward price of \$350/troy ounce. | | | |

Effect of the hedge on the income statement

At the conclusion of the transaction and after the effect of the hedge, the company has effectively sold the gold at the June spot price of \$350/troy ounce, even though the contract was at a price that was fixed in January (i.e., the company “unlocked the fixed-price contract”). It also recognized a \$500 gain from the mismatch caused by using the change in the NYMEX futures to hedge the change in London forward prices. However, this mismatch was not large enough to invalidate the hedge (change in fair value of derivative/change in fair value of firm commitment = \$4,500/\$4,000, or 112.5%). Because ASC 815 requires all of the effects of the hedging instrument to be presented in the same income statement line item as the effects of the hedged item, the company recorded \$500 of net mismatch in sales.

Example 3: Partial-term fair value hedge of fixed-rate debt using an interest rate swap designated after the issuance of the debt instrument (perfect offset) (updated September 2023)

On 15 July 20X1, ABC Company issues a \$10,000,000, noncallable, 3% fixed-rate note at par. The note is due on 15 July 20X4, with semiannual interest payments due each 15 January and 15 July until maturity. On 15 January 20X2 (six months after issuance of the debt), ABC Company enters into a two-year interest rate swap with a \$10,000,000 notional amount and designates it in a hedging relationship for the next two years (15 January 20X2 to 15 January 20X4). The swap receives interest at a fixed rate of 2% (the current market SOFR OIS rate) and pays variable interest based on daily SOFR compounded in arrears with semiannual settlements. The swap is entered into "at-market," and as a result there is no exchange of cash at the initial date of the swap (i.e., the fair value of the swap is zero).

ABC Company designates the swap as a hedge of the changes in fair value of the fixed-rate note payable due to changes in the designated benchmark interest rate. The company designates changes in the SOFR OIS rate as the benchmark interest rate risk being hedged. Based on the structure of the hedging relationship, ABC Company qualifies to use the shortcut method of assessing effectiveness.

For fair value hedges, ASC 815-20-25-103 notes that if the shortcut method is applied, changes in fair value of the swap attributable to changes in creditworthiness of either party, while warranting ongoing monitoring (as long as both parties remain probable of honoring their contractual obligations under the swap), will not result in any mismatch in earnings. In addition, because the designated hedged risk is the risk of changes in fair value of the debt due to changes in the benchmark interest rate, ASC 820 does not affect how the debt will be valued.

The documentation of the hedging relationship at the time of entering into the swap is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the debt against changes in fair value due to changes in the benchmark interest rate. Changes in the fair value of the interest rate swap are expected to be "perfectly effective" in offsetting changes in the fair value of the debt attributable to changes in the SOFR OIS rate, the designated benchmark interest rate. |
| Date of designation | 15 January 20X2 |
| Hedging instrument | A two-year \$10,000,000 notional amount, receive-fixed (2%) and pay-floating (daily SOFR compounded in arrears) interest rate swap, dated 15 January 20X2, with semiannual settlements through 15 January 20X4 |
| Hedged item | \$10,000,000, 3% note payable due 15 July 20X4 with an assumed term beginning on 15 January 20X2 and maturing on 15 January 20X4, with semiannual interest payments |
| How hedge effectiveness will be assessed | Because the critical terms of the debt and the interest rate swap match (e.g., principal/notional amounts, the swap expiration date matches the assumed maturity date of the debt pursuant to ASC 815-25-35-13B) ¹⁴² and the other conditions in ASC 815-20-25-102, 25-104, and 25-105 are met, the hedge will be considered perfectly effective against changes in the fair value of the debt due to changes in the benchmark interest rate over its term and the shortcut method will be applied. Accordingly, there is no need to periodically reassess the effectiveness during the term of the hedge. However, on an ongoing basis, the company will consider the likelihood of the swap counterparty's compliance with its contractual obligations under the swap in applying the shortcut method. If in any subsequent period, we determine that the shortcut method was, or is no longer appropriate, we will assess hedge effectiveness by using a cumulative dollar offset method that compares the change in fair value of the hedged item caused by changes in the benchmark interest rate to changes in fair value of the actual derivative. |

¹⁴² For SOFR OIS swaps where the amount paid on the variable leg is based on daily SOFR compounded in arrears, it is market convention for the floating leg to settle on a delay of up to three days, enabling adequate time to properly calculate and settle this cash flow. As a result, settlement of the floating leg may occur after the contractual maturity date of the swap. However, the requirement in ASC 815-20-25-105(a) is met since the expiration date of the swap matches the assumed maturity of the debt.

On 15 July 20X1, the debt is recorded at \$10,000,000.

At 15 January 20X2, ABC Company makes its first fixed payment on \$10,000,000 of debt and also enters into the interest rate swap. No entry is required for the swap on that date because it was entered into at-market with a fair value of zero at inception.

At 15 July 20X2, the SOFR OIS rate declines by 25 basis points, such that an at-market, identical term swap with one less period remaining that is entered into on 15 July 20X2 would be priced at a 1.75% receive-fixed rate. Due to the decrease in the SOFR OIS rate, the fair value of the swap increases to \$37,300 (after CVA of (\$200)), representing a gain to the company. Because the shortcut method is applied, the company does not separately calculate the change in fair value of the debt attributable to changes in the benchmark interest rate. Rather, the debt is assumed to have increased by the same amount as the interest rate swap (\$37,300), which represents a loss to the company. The shortcut method permits entities to simply adjust the carrying amount of the debt by the offsetting amount of the fair value adjustment on the swap.

At 15 July 20X2, ABC Company would make the following entries (note that, as a practical matter for hedges that qualify for the shortcut method, the following two entries could be combined into a single entry, since the amounts exactly offset):

| | | | |
|--|----|--------|-----------|
| Interest rate swap (asset) | \$ | 37,300 | |
| Interest expense | | | \$ 37,300 |
| To recognize the change in the fair value of the swap. | | | |
| Interest expense | \$ | 37,300 | |
| Note payable | | | \$ 37,300 |
| To recognize the change in the fair value of the debt due to changes in the SOFR OIS rate. (Note that this entry causes the debt to be presented on the balance sheet at \$10,037,300 rather than \$10,000,000.) | | | |

During the six months ended 15 July 20X2, ABC Company also would have paid interest on its debt of \$150,000, received a fixed-rate payment from the swap counterparty of \$100,000, and made a payment based on SOFR OIS compounded daily in arrears to the swap counterparty. These payments would all be netted in the interest expense account, resulting in interest expense equal to daily SOFR compounded in arrears for the period plus 1%, the effective hedged rate.

At 15 January 20X3, assume that the SOFR OIS rate has remained the same. Due to the additional payments that have been made and the passage of time, the fair value of the swap declines to \$24,800 (after CVA). Accordingly, the following entry would be required to adjust the carrying amount of the swap to its fair value and to recognize the change in the fair value of the debt by the same amount:

| | | | |
|---|----|--------|-----------|
| Interest expense | \$ | 12,500 | |
| Interest rate swap (asset) | | | \$ 12,500 |
| To recognize the change in the fair value of the swap. | | | |
| Note payable | \$ | 12,500 | |
| Interest expense | | | \$ 12,500 |
| To recognize the change in the fair value of the debt. Note the debt is now presented on the balance sheet at \$10,024,800. | | | |

ABC Company will follow the same procedure of constantly adjusting the carrying amount of the swap to its fair value and adjusting the carrying amount of the debt by the same amount. Because the hedge qualifies for the shortcut method and is therefore presumed to be perfectly effective, the periodic adjustments to the carrying amount of the debt and the swap will be for the same amounts. Note that the fair value of the swap moves toward zero as it moves toward its expiration (as there are fewer cash flows to discount and a shorter period over which to discount) and therefore, as long as the hedge is in effect, the carrying amount of the debt is automatically returned to par as it moves toward maturity.

Effect of the hedge on the income statement

Because the hedge was structured as a perfect hedge that qualified for accounting under the shortcut method, there is no mismatch between the hedged item and the hedging instrument recognized in earnings (i.e., the changes in the fair value of the swap exactly offset the changes in the fair value of the debt due to changes in the SOFR OIS rate). ABC Company's net interest expense each semiannual period is equal to daily SOFR compounded arrears for the period, plus 1% net interest payments.

How we see it

The above example demonstrates the application of the shortcut method for a partial term hedge that was designated subsequent to the recognition of the hedged item. ASC 815-20-25-104(e) and 25-105(a) acknowledge the ability to apply the shortcut method for a partial-term fair value hedge when the assumed maturity of the hedged item matches the expiration date of the hedging instrument (assuming all other criteria have been met). Although the Codification does not explicitly address the use of the shortcut method with a late-term hedge, paragraph BC96 of the Basis for Conclusions in ASU 2017-12 states that "given the ability to achieve perfect offset in a late-term hedge, the Board observes that its decision allows fair value hedging to be applied to late-term hedges under both the long-haul method and the shortcut method without raising a concern in paragraph 815-20-25-104(g)(2) when applying the shortcut method."

In addition, based on the guidance in ASC 815-20-25-107 that states "[t]he shortcut method may be applied to a hedging relationship that involves the use of an interest rate swap-in-arrears, provided all of the applicable conditions are met," we believe the shortcut method can be applied to a fair value hedge where the hedging instrument is a SOFR OIS swap whose variable leg is based on daily SOFR compounded in arrears.

While it is market convention for the floating leg on these swaps to settle on a delay of up to three days, enabling adequate time to properly calculate and settle this cash flow, as illustrated in the example in ASC 815-25-55-46, the settlement and interest payment dates between the swap and fixed rate debt do need not match in order to assume perfect effectiveness in fair value hedge.

Also, the requirement in ASC 815-20-25-105(a) for the expiration date of the swap to match the assumed maturity of the debt is met, even though the floating leg of the swap may settle after the swap's contractual maturity date. The ability to use the shortcut method in the above example greatly simplified the accounting. If ABC Company had not been permitted to use the shortcut method (e.g., if the interest rate swap did not have a fair value of zero at hedge inception), it would have been required to quantify the change in the fair value of the fixed-rate debt due to changes in the designated benchmark interest rate (the SOFR OIS rate in this example). That calculation may result in an imperfect offset between the hedged item and the hedging instrument that must be recognized in the income statement, as illustrated in the following example.

Example 4: Fair value hedge of the LIBOR swap rate in a fixed-rate note (use of benchmark component)

Whenever the shortcut method is not available, entities are required to quantitatively determine the hedged item's change in fair value attributable to changes in the benchmark interest rate. This example illustrates two methods that could be used to determine this amount based on the illustrative examples provided in ASC 815-25-55 in Example 9 and Example 16 (as such, they are referred to as the Example 9 method and the Example 16 method). Refer to section 5.3.3 for further discussion of these methods.

On 1 January 20X1, Company Z issues at par a \$100,000, five-year, fixed-rate, noncallable debt instrument with an annual 10% interest coupon. On that date, Company Z also enters into a \$100,000 notional, five-year LIBOR based interest rate swap and designates it as the hedging instrument in a fair value hedge of the \$100,000 debt obligation. Under the terms of the swap, Company Z will receive fixed interest at the current market LIBOR swap rate of 7% and pay variable interest at LIBOR. The variable leg of the swap resets each year on 31 December for the payments due the following year. The swap is entered at-market, with no exchange of cash at the initial date of the swap (i.e., the fair value of the swap is zero).

Since the swap reprices annually on 31 December the hedging relationship does not qualify for the shortcut method. An annual repricing interval would not support the assumption that repricings of the variable leg of the swap are frequent enough to represent a variable payment at a market rate, as required by the shortcut criteria in ASC 815-20-25-105(c).

The documentation of the hedging relationship at the time of entering into the swap is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the debt against changes in fair value due to changes in the benchmark interest rate. Changes in the fair value of the interest rate swap are expected to be highly effective in offsetting changes in the fair value of the debt attributable to changes in the LIBOR swap rate, the designated benchmark interest rate. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | \$100,000 notional amount, receive-fixed (7%) and pay-floating (LIBOR) interest rate swap, dated 1 January 20X1, with annual settlements and reset dates until 31 December 20X5. |
| Hedged item | \$100,000, 10% note due 31 December 20X5 |
| How hedge effectiveness will be assessed | Company Z will assess effectiveness (both prospective and retrospective) under the cumulative dollar offset method by comparing the change in the fair value of the debt related to the change in the benchmark LIBOR swap rate to the change in the fair value of the swap related to the change in the benchmark LIBOR swap rate. ¹⁴³ In accordance with ASC 815-25-35-13, the company elects to use only the benchmark rate component of the debt's contractual coupon cash flows in calculating the change in fair value of the hedged item attributable to changes in the hedged risk. Two alternative methods for measuring the hedged item and assessing the effectiveness of the hedge, the Example 9 method and the Example 16 method, are described below. |

In this example, when calculating the present value of a stream of future cash flows as of a given point in time, each of those individual cash flows is being discounted back at the same rate. Alternatively, each of the individual cash flows could be discounted at the corresponding rate along the yield curve, which would usually be a different rate for each cash flow.

¹⁴³ For simplicity, the entity in this example uses the cumulative dollar offset ratio to assess effectiveness. However, in practice entities often use a statistical method, such as regression analysis.

The example assumes a flat yield curve and parallel changes in interest rates at the end of each calendar year. That is, it assumes that both LIBOR and the applicable LIBOR swap rate are equal and that the change in LIBOR and the LIBOR swap rate are the same. In reality, this would rarely occur. The market fluctuations in this example are constructed to simplify calculations for illustrative purposes and not to represent typical market behavior.

Before addressing the changes in the fair value of the hedged item, it is helpful to examine the sources of changes in fair value of the interest rate swap that is being designated as the hedging instrument. The following table presents the assumed LIBOR swap rates and related changes in these rates, as well as the resulting fair values of the interest rate swap and related changes in its fair value:

| Key assumptions | | | | |
|------------------------|------------------------|---------------------------------------|---|---|
| Date | LIBOR swap rate | Change in LIBOR on 31 December | Fair value of swap liability¹⁴⁴ | Change in fair value of swap – gain (loss) |
| 1/1/20X1 | 7.00% | – | – | – |
| 12/31/20X1 | 7.50% | + 50 basis points | \$ 1,575 ¹⁴⁵ | \$ (1,575) |
| 12/31/20X2 | 7.75% | + 25 basis points | \$ 1,814 | \$ (239) |
| 12/31/20X3 | 7.25% | - 50 basis points | \$ 413 | \$ 1,401 |
| 12/31/20X4 | 7.50% | + 25 basis points | \$ 465 | \$ (52) |
| 12/31/20X5 | 7.50% | – | – | \$ 465 |

In the table above, the changes in the fair value of the interest rate swap do not result solely from changes in the LIBOR swap rate. There is a change in value that naturally occurs as time passes between swap payment dates. With the passage of time, future swap cash flows become closer in time, and thus interest accrues on those future cash flows. In addition, there are fewer remaining periods in the swap's term as payments occur. Also, credit risk of both derivative counterparties is reflected as CVA to the fair value measurement of the swap.

¹⁴⁴ The fair value of this swap is calculated as the present value of future fixed-rate receipts less the present value of future floating-rate payments. The floating-rate payments are determined by the rates from the implied forward yield curve at each reset date (which, in the case of the flat yield curve, equal the spot rates). The discount rate to be used is the current spot rate for each future cash flow date. In addition, appropriate CVA is included in the fair value measurement of the swap for each measurement date.

¹⁴⁵ For example, at 12/31/20X1: Fixed payment = 7.0% times \$100,000 notional = \$7,000. Present value of fixed payments = $[(7,000/(1.075)^1) + (7,000/(1.075)^2) + (7,000/(1.075)^3) + (7,000/(1.075)^4)] = \$23,445$. Floating payments (based on flat yield curve) are 7.5% times \$100,000 notional = \$7,500 each period. Present value of floating payments = $[(7,500/(1.075)^1) + (7,500/(1.075)^2) + (7,500/(1.075)^3) + (7,500/(1.075)^4)] = \$25,120$. Fair value of swap = $\$23,445 - \$25,120 = (\$1,675)$. Note that the same results are obtained by discounting a series of four \$500 payments ($\$7,500 - \$7,000$) back at 7.5%.

Additionally, the company incorporates the credit risk of both counterparties to the swap in the determination of the fair value of the swap. The CVA is present only in the derivative (not the hedged item) and must be measured and recognized in earnings each period. For example, a CVA of \$100 is reflected in the fair value measurement of the swap as of 31 December 20X1 (refer to the following table for CVA amounts determined for each of the following measurement dates). This example assumes the CVA is separately calculated using an appropriate methodology.

The following table “rolls forward” the interest rate swap from year end to year end, breaking the change in fair value down into the components:

| Progression of swap fair value, by component | | | | | |
|---|------------------------|-------------------|-----------------|-----------------|-------------|
| Debit/(credit) | Year ended 31 December | | | | |
| | 20X1 | 20X2 | 20X3 | 20X4 | 20X5 |
| Swap fair value – beginning of year | \$ – | \$ (1,575) | \$ (1,814) | \$ (413) | \$ (465) |
| Accrete interest on beginning of year fair value at market rate from beginning of year ¹⁴⁶ | – | (118) | (141) | (30) | (35) |
| End of year cash payment ¹⁴⁷ | – | 500 | 750 | 250 | 500 |
| Change in fair value from change in market LIBOR swap rate ¹⁴⁸ | (1,675) | (641) | 892 | (232) | – |
| CVA adjustment (calculated separately; not illustrated) | 100 | 20 | (100) | (40) | – |
| Swap fair value – end of year ¹⁴⁹ | <u>\$ (1,575)</u> | <u>\$ (1,814)</u> | <u>\$ (413)</u> | <u>\$ (465)</u> | <u>\$ –</u> |

This segregation of a swap’s change in fair value into its components will be considered again when recording journal entries, assessing hedge effectiveness, and examining the underlying economics of the hedge.

Because the shortcut method cannot be applied, Company Z must calculate the change in the fair value of the debt resulting from the change in the benchmark LIBOR swap rate to assess the effectiveness of the hedging relationship. In addition, in accordance with ASC 815-20-55-14A, the company elects to use only the benchmark rate component of the debt’s contractual coupon cash flows in this calculation. This means that the portion of the contractual coupon in excess of the benchmark rate at inception (e.g., Company Z’s credit spread) is excluded from the calculation of the change in the fair value of the debt resulting from the change in the benchmark LIBOR swap rate.

ASC 815 does not specify how the benchmark component cash flows should be derived. We believe one acceptable method is to use the fixed rate on an interest rate swap that has (1) no spread on the variable leg, (2) a fair value of zero at hedge inception and (3) the same terms as the hedged item. This example assumes that the interest rate meets those conditions.

Example 9 method

Under the Example 9 method, the change in the hedged item’s fair value attributable to changes in the benchmark interest rate for a specific period is determined as the difference between two present value calculations, both using the remaining cash flows as of the end of the period. The discount rates used for those calculations should be based on the benchmark interest rate as of the beginning of the period and end of the period, respectively.

As discussed in section 5.3.3.1 and illustrated below, by multiplying the difference between the beginning and ending LIBOR swap rates by the same cash flows (i.e., remaining as of the end of the period), the Example 9 method isolates the change in value attributable to the change in the benchmark interest rate without including the change in value attributable to the passage of time.

¹⁴⁶ Calculated as: beginning swap market value times beginning of period LIBOR swap rate. The fair value of the swap at the beginning of the period consists of each future payment discounted back to that valuation date. The calculation accretes interest on each of those payments through the end of the period.

¹⁴⁷ Calculated as: notional amount times the difference between the floating-rate paid and the fixed-rate received. The rates are based on the reset date at the beginning of the period. Note that there is no payment in the first year because the floating-rate paid, and the fixed-rate paid are the same (both based on 7%).

¹⁴⁸ Calculated as: payments remaining at end of period (based on last reset date LIBOR swap rate) discounted at that last reset date LIBOR swap rate less payments remaining at end of period (based on newly reset LIBOR swap rate) discounted at the newly reset LIBOR swap rate.

¹⁴⁹ This agrees to the fair value calculated in the table above.

To accurately calculate hedge effectiveness, Company Z must compare the change in the fair value of the debt (calculated under the Example 9 method) to the change in the fair value of the swap related to the change in the benchmark LIBOR swap rate. That is, for the purpose of assessing effectiveness of the hedging relationship under the Example 9 method, the change in the fair value of the swap must also exclude the passage of time. However, any mismatch between the *entire* change in fair value of the derivative and the change in the fair value of the hedged item attributable to the hedged risk would be recognized in interest expense (given that debt is being hedged in this case).

In Company Z's quarterly assessments of hedge effectiveness for each of the first three quarters of 20X1, there is zero change in the hedged item's fair value attributable to changes in the benchmark interest rate because there was no change in the LIBOR swap rate. However, the LIBOR swap rate changes on 31 December 20X1. Therefore, in the assessment for the fourth quarter 20X1, the discount rate for the beginning of the period is 7% and the discount rate for the end of the period is 7.50%.

The cash flows used in the calculation as of 31 December 20X1 are the remaining four annual interest payments of \$7,000 (calculated as 7% stated rate times the \$100,000 principal) and the \$100,000 principal itself. This stream of future cash flows is discounted at 7% and then at 7.50%, with the difference in those present value amounts representing the change in fair value of the debt related to the change in the benchmark interest rate. The calculation is:

$$\text{Present value at beginning rate of 7.00\%} = (7,000/(1.07)^1) + (7,000/(1.07)^2) + (7,000/(1.07)^3) + (7,000/(1.07)^4) + (100,000/(1.07)^4) = \$100,000$$

$$\text{Present value at ending rate of 7.50\%} = (7,000/(1.075)^1) + (7,000/(1.075)^2) + (7,000/(1.075)^3) + (7,000/(1.075)^4) + (100,000/(1.075)^4) = \$98,325$$

$$\text{Change in fair value of debt attributable to the change in the benchmark LIBOR swap rate} = \$100,000 - \$98,325 = \$1,675$$

$$\text{Adjusted carrying value of debt due to fair value hedge} = \$100,000 - \$1,675 = \$98,325$$

Similarly, throughout 20X2, the LIBOR swap rate remains constant until 31 December 20X2, when it increases to 7.75%. Therefore, in the assessment for the fourth quarter of 20X2, the discount rate for the beginning of the period is 7.50% and the discount rate for the end of the period is 7.75%. The future cash flows at 31 December 20X2, are the remaining three annual interest payments of \$7,000 and the \$100,000 principal. The calculation is:

$$\text{Present value at beginning rate of 7.50\%} = (7,000/(1.075)^1) + (7,000/(1.075)^2) + (7,000/(1.075)^3) + (100,000/(1.075)^3) = \$98,700$$

$$\text{Present value at ending rate of 7.75\%} = (7,000/(1.0775)^1) + (7,000/(1.0775)^2) + (10,000/(1.0775)^3) + (100,000/(1.0775)^3) = \$98,059$$

$$\text{Change in fair value of debt attributable to the change in the benchmark LIBOR swap rate} = \$98,700 - \$98,059 = \$641$$

$$\text{Adjusted carrying value of debt due to fair value hedge} = \$98,325 - \$641 = \$97,684$$

The following table presents the change in the carrying value of the debt for each year in the five-year period being hedged.

| Carrying value of debt, by period | | |
|-----------------------------------|------------------------|--|
| Period ended | Carrying value of debt | Change in fair value of debt attributable to change in hedged risk – gain (loss) |
| 1/1/20X1 | \$ 100,000 | – |
| 12/31/20X1 | \$ 98,325 | \$ 1,675 |
| 12/31/20X2 | \$ 97,684 | \$ 641 |
| 12/31/20X3 | \$ 98,575 | \$ (891) |
| 12/31/20X4 | \$ 98,343 | \$ 232 |
| 12/31/20X5 | \$ 98,343 | – |

As noted above, the fair value change of the swap excludes the effects of the passage of time for the purposes of assessing effectiveness. Accordingly, the interest on future payments that accrues during the period and the effect of the current payment that is made on the reset date are also excluded. However, the fair value change of the swap must include the changes attributable to both swap counterparties' credit risks in the hedge effectiveness calculation. The following table calculates the cumulative dollar offset ratio by comparing the change in the fair value of the swap related to the change in the LIBOR swap rate (plus CVA) to the calculated change in the fair value of the debt.

| Hedge effectiveness analysis | | | |
|-------------------------------------|--|---|---|
| Period ended | Cumulative change in fair value of debt attributable to change in hedged risk – gain (loss) | Cumulative change in fair value of swap from change in market rates –gain (loss)¹⁵⁰ | Ratio of hedge effectiveness¹⁵¹ |
| 12/31/20X1 | \$ 1,675 | \$ (1,575) | 94% |
| 12/31/20X2 | \$ 2,316 | \$ (2,196) | 95% |
| 12/31/20X3 | \$ 1,425 | \$ (1,404) | 99% |
| 12/31/20X4 | \$ 1,657 | \$ (1,676) | 101% |
| 12/31/20X5 | \$ 1,657 | \$ (1,676) | 101% |

The interest rate swap used by Company Z may have appeared to be a “perfect hedge.” The notional amount agreed to the face amount of the debt, the term of the swap matched that of the debt, and the swap was entered at-market. Therefore, the changes in the fair value of the swap may be expected to perfectly offset changes in the hedged item such that no earnings mismatch would be reported.

Upon closer examination, it is clear that the relationship is not a perfect relationship due to changes in the credit risk of swap counterparties resulting in a change in the fair value of the swap that will not be offset by an equivalent change in fair value of the debt. As a result, a mismatch that will be recognized in earnings.¹⁵²

Based on the cumulative dollar offset ratios above, the hedging relationship is highly effective. Therefore, the following journal entries are recorded by Company Z in the first two years of the hedging relationship.

At 1 January 20X1, Company Z records the issuance of debt at par and records nothing for the swap as it was entered at-market (i.e., fair value of swap at inception is zero).

At 31 December 20X1, Company Z makes the following entries (note that the interest expense would normally be accrued throughout the year):

| | | | |
|--|----|--------|-----------|
| Interest expense | \$ | 10,000 | |
| Interest payable | | | \$ 10,000 |
| To record interest expense at 10% on the \$100,000 debt. | | | |

(Note that no interest income/expense is recorded for the swap as the fixed and floating rates as of the beginning of the year were both 7.0%. There are no cash flows on which to accrue interest in the first year.)

| | | | |
|--|----|-------|----------|
| Interest expense | \$ | 1,575 | |
| Interest rate swap (liability) | | | \$ 1,575 |
| To record the change in fair value of the interest rate swap as a result of changes in the market rate and the CVA of \$100. | | | |

¹⁵⁰ The cumulative change in the fair value of the swap is calculated based on amounts included in the “Progression of swap fair value, by component” table above. For example, the cumulative change of \$(2,196) as of 31 December 20X2 = (1675) + 100 + (641) + 20. The change in CVA is included for the purposes of assessing hedge effectiveness.

¹⁵¹ Calculated as the cumulative change in fair value of the swap from changes in the market rate (excluding the passage of time) as a percentage of the cumulative change in the fair value of the debt attributable to the change in the LIBOR swap rate (the hedged risk).

¹⁵² In addition, some imperfection is also attributable to the nature of the floating leg of the swap. For practical purposes, floating legs of swaps do not continuously float but actually fix in advance for a few weeks or months at a time, typically for the next swap accrual period. As a result, nearly all fair value hedges do not accomplish the “perfect” objective of swapping a fixed exposure to an *entirely* floating exposure.

| | | | |
|------------------|----|-------|----------|
| Debt | \$ | 1,675 | |
| Interest expense | | | \$ 1,675 |

To record the change in fair value of the debt as a result of the change in the benchmark interest rate.

The above entries result in a mismatch that reduces interest expense by \$100 (\$1,575 – \$1,675). This mismatch is the result of CVA on the derivative that is not in the hedged item.

At 31 December 20X2, Company Z makes the following entries (note that the interest expense related to the debt and the swap would normally be accrued throughout the year):

| | | | |
|------------------|----|--------|-----------|
| Interest expense | \$ | 10,000 | |
| Interest payable | | | \$ 10,000 |

To record interest expense at 10% on the \$100,000 debt.

| | | | |
|--------------------------------|----|-----|--------|
| Interest expense | \$ | 118 | |
| Interest rate swap (liability) | | | \$ 118 |

Accretion of interest on the swap's beginning of the year fair value.

| | | | |
|--------------------------------|----|-------|----------|
| Swap interest receivable | \$ | 7,000 | |
| Interest rate swap (liability) | | 500 | |
| Swap interest payable | | | \$ 7,500 |

To reclassify the net payable out of the swap liability into related receivables and payables (shown gross for illustration purposes).

| | | | |
|--------------------------------|----|-----|--------|
| Interest expense | \$ | 621 | |
| Interest rate swap (liability) | | | \$ 621 |

To record the change in fair value of the interest rate swap as a result of the change in the benchmark interest rate and the \$20 CVA.

| | | | |
|------------------|----|-----|--------|
| Debt | \$ | 641 | |
| Interest expense | | | \$ 641 |

To record the change in fair value of the debt as a result of the change in the benchmark interest rate.

Similar entries would be made in subsequent years and are not illustrated here.

There is one final component of Company Z's hedge that needs to be considered. If the example above had followed the journal entries through to 31 December 20X5, Company Z would have debt of \$98,343 recorded on its books at maturity. The following entry would be necessary to retire the debt:

| | | | |
|--------------------------------|----|--------|------------|
| Debt | \$ | 98,343 | |
| Loss on extinguishment of debt | | 1,657 | |
| Cash | | | \$ 100,000 |

To retire debt at face amount of \$100,000.

There is a loss at the maturity of the debt because the carrying value adjustments to the debt during the five-year period were simply presented on the balance sheet with no subsequent amortization. ASC 815-25-35-9 requires the amortization of carrying value adjustments to begin no later than when the hedged item's carrying value ceases to be adjusted for changes in its fair value attributable to the risk being hedged. However, it does not prohibit beginning amortization at an earlier date. Therefore, Company Z had the choice of amortizing the fair value adjustments.

We believe most entities will amortize the adjustments to the carrying amount of hedged items periodically (e.g., annually) to avoid the sudden earnings impact upon the maturity of the hedged item. In addition, this amortization helps to reflect more of the floating rate that was desired in initiating the hedge. The table below calculates the effective rate achieved on the debt alone as a result of immediately initiating the amortization of the changes in the carrying amount of the hedged debt:

| Calculation of effective interest rate (debt only) | | | | | |
|---|--|--|---------------------------------------|--|--------------------------------|
| Year | Interest expense on debt at stated rate | Amortization of carrying value adjustment to debt¹⁵³ | Total interest expense on debt | Carrying value of debt at beginning of year¹⁵⁴ | Effective interest rate |
| 20X1 | \$ 10,000 | \$ – | \$ 10,000 | \$ 100,000 | 10.00% |
| 20X2 | \$ 10,000 | \$ 358 | \$ 10,358 | \$ 98,325 | 10.53% |
| 20X3 | \$ 10,000 | \$ 587 | \$ 10,587 | \$ 98,042 | 10.80% |
| 20X4 | \$ 10,000 | \$ 228 | \$ 10,228 | \$ 99,520 | 10.28% |
| 20X5 | \$ 10,000 | \$ 484 | \$ 10,484 | \$ 99,516 | 10.53% |

The following table calculates the effective rate achieved in the entire hedging relationship, consisting of the debt and the interest rate swap.

| Calculation of effective interest rate (debt and swap combined) | | | | | | | |
|--|---------------------------------------|---------------------------------|----------------------------------|--|--|---|--|
| Year | Total interest expense on debt | Interest expense on swap | Combined interest expense | Carrying value of debt at beginning of year | Fair value of swap at beginning of year (a liability) | Combined carrying amount beginning of year | Effective interest rate¹⁵⁵ |
| 20X1 | \$ 10,000 | \$ – | \$ 10,000 | \$100,000 | \$ – | \$ 100,000 | 10.00% |
| 20X2 | \$ 10,358 | \$ 118 | \$ 10,476 | \$ 98,325 | \$ 1,575 | \$ 99,900 | 10.49% |
| 20X3 | \$ 10,587 | \$ 141 | \$ 10,728 | \$ 98,042 | \$ 1,814 | \$ 99,856 | 10.74% |
| 20X4 | \$ 10,228 | \$ 30 | \$ 10,258 | \$ 99,520 | \$ 413 | \$ 99,933 | 10.26% |
| 20X5 | \$ 10,484 | \$ 35 | \$ 10,519 | \$ 99,516 | \$ 465 | \$ 99,981 | 10.52% |

¹⁵³ The amount amortized has been calculated using the effective interest method. The effective rate used is that which equates the adjusted carrying value of the debt due to the fair value hedge as of the beginning of the year with the future cash flows, both principal and interest. For example, the carrying value of the debt at 31 December 20X1 is \$98,325. Solving for an effective interest rate based on four interest payments of \$10,000 and principal of \$100,000 that in four periods yields the carrying value of \$98,325 produces a rate of 10.53%. Thus, amortization for the year ended 31 December 20X2 is calculated as $(10\% \times \$100,000) - (10.534\% \times \$98,325) = \$358$.

¹⁵⁴ The carrying value of the debt is calculated as the beginning balance plus amortization during the year of the carrying value adjustment plus or minus the year end carrying value adjustment. For example, $\$98,042 = \$98,325 + \$358 - \641 .

¹⁵⁵ Calculated by dividing the combined interest expense by the combined carrying amount.

How we see it

The Example 9 method requires an entity to isolate the component of the change in the fair value of the swap that relates to the passage of time.

If Company Z had included the passage of time and swap payments in this example, hedge effectiveness would have been mistakenly assessed as follows:

| Period ended | Cumulative change in fair value of debt attributable to change in hedged risk – gain (loss) | Cumulative change in fair value of swap – gain (loss) | Ratio of hedge effectiveness |
|--------------|---|---|------------------------------|
| 12/31/20X1 | \$ 1,675 | \$ (1,575) | 94% |
| 12/31/20X2 | \$ 2,316 | \$ (1,814) | 78% |
| 12/31/20X3 | \$ 1,425 | \$ (413) | 29% |
| 12/31/20X4 | \$ 1,657 | \$ (465) | 28% |
| 12/31/20X5 | \$ 1,657 | \$ 0 | N/A |

These calculations would indicate that the hedge was not effective from a dollar-offset measure during any period except for the year ended 31 December 20X1. In other words, it would seem that the change in the fair value of the swap did not effectively offset the change in the fair value of the debt resulting from the change in the benchmark LIBOR swap rate. However, these ratios do not take into account the concept illustrated earlier that there are several components to the change in the fair value of the interest rate swap. Once the assessment of hedge effectiveness eliminates the effect of the passage of time and is appropriately limited to the change in the fair value of the swap as a result of the change in the benchmark LIBOR swap rate and CVA, effectiveness is evident in the earlier table, which showed a narrower range in the ratio of hedge effectiveness than indicated above.

Example 16 method

Under the Example 16 method, the change in a hedged item's fair value attributable to changes in the benchmark interest rate for a specific period is also determined as the difference between two present value calculations. However, rather than using the remaining cash flows as of the end of the period for both present value calculations as done under the Example 9 method, under the Example 16 method the entity calculates the change as the difference between the present value of cash flows remaining as of the beginning of the period and the present value of cash flows remaining as of the end of the period. The discount rates used for the present value calculations under the Example 16 method are determined in a manner consistent with the Example 9 method.

As discussed in section 5.3.3.2, using the remaining cash flows as of the beginning of the period and end of the period, respectively, in the two present value calculations under the Example 16 method results in the change in fair value of the hedged item attributable to the change in the benchmark interest rate including the change in fair value attributable to the passage of time. Accordingly, the change in the fair value of the swap attributable to the passage of time does not need to be isolated and excluded from the assessment of hedge effectiveness as was the case under the Example 9 method. Instead, the entire change in the fair value of the swap is included in the assessment of hedge effectiveness.

Assuming the same facts above, the calculation as of 31 December 20X1 is:

Present value of cash flows as of beginning of period at beginning rate of 7.00% = $(7,000/(1.07)^1) + (7,000/(1.07)^2) + (7,000/(1.07)^3) + (7,000/(1.07)^4) + (7,000/(1.07)^5) + (100,000/(1.07)^5) = \$100,000$

Present value of cash flows as of end of period at ending rate of 7.50% = $(7,000/(1.075)^1) + (7,000/(1.075)^2) + (7,000/(1.075)^3) + (7,000/(1.075)^4) + (100,000/(1.075)^4) = \$98,325$

Change in the fair value of the debt attributable to the change in the benchmark LIBOR swap rate = $\$100,000 - \$98,325 = \$1,675$

Adjusted carrying value of the debt due to the fair value hedge = $\$100,000 - \$1,675 = \$98,325$

Note that this first basis adjustment is the same as under the Example 9 method, because the benchmark component cash flows match the benchmark interest rate at inception resulting in an initial present value amount of par under both examples. This will not necessarily be the case in future periods, so the two methods will likely yield different results in those periods.

At 31 December 20X2, when the LIBOR swap rate increases to 7.75%, Company Z has to only compute the ending cash flows at the ending benchmark interest rate. This calculation is compared to the discounted ending cash flows from the prior period. The calculation is:

Present value of cash flows as of end of period at ending rate of 7.75% = $(7,000/(1.0775)^1) + (7,000/(1.0775)^2) + (7,000/(1.0775)^3) + (100,000/(1.0775)^3) = \$98,059$

Change in fair value of debt attributable to the change in the benchmark LIBOR swap rate = $\$98,325 - \$98,059 = \$266$

Adjusted carrying value of debt due to fair value hedge = $\$98,325 - \$266 = \$98,059$

The following table presents the change in the carrying value of the debt for each year in the five-year period being hedged. Note that when the benchmark rate component of the debt's contractual coupon cash flows are used to calculate the change in fair value of the hedged item under the Example 16 method, it is not necessary to amortize the basis adjustments if the hedging relationship continues to the maturity of the debt. In those cases, such as in this example, the inclusion of the passage of time in the calculation of the change in fair value of the debt attributable to changes in the benchmark interest rate results in a natural amortization over the term of the hedging relationship.

| Carrying value of debt, by period | | |
|-----------------------------------|------------------------|--|
| Period ended | Carrying value of debt | Change in fair value of debt attributable to change in hedged risk – gain (loss) |
| 1/1/20X1 | \$ 100,000 | \$ – |
| 12/31/20X1 | 98,325 | 1,675 |
| 12/31/20X2 | 98,059 | 266 |
| 12/31/20X3 | 99,550 | (1,491) |
| 12/31/20X4 | 99,535 | 15 |
| 12/31/20X5 | 100,000 | (465) |

The following table calculates the cumulative dollar offset ratio by comparing the entire change in the fair value of the swap to the calculated change in the fair value of the debt.

| Hedge effectiveness analysis | | | |
|-------------------------------------|--|---|---|
| Period ended | Cumulative change in fair value of debt attributable to change in hedged risk – gain (loss) | Cumulative change in fair value of swap –gain (loss) | Ratio of hedge effectiveness¹⁵⁶ |
| 12/31/20X1 | \$ 1,675 | \$ (1,575) | 94% |
| 12/31/20X2 | \$ 1,941 | \$ (1,814) | 93% |
| 12/31/20X3 | \$ 450 | \$ (413) | 92% |
| 12/31/20X4 | \$ 465 | \$ (465) | 100% |
| 12/31/20X5 | – | – | – |

Based on the cumulative dollar offset ratios above, the hedging relationship is highly effective throughout the hedging relationship.

Through 31 December 20X1, Company Z would make the same journal entries under the Example 16 method that they would make if they used the Example 9 method.

At 31 December 20X2, Company Z makes the following entries (note that the interest expense related to the debt and the swap would normally be accrued throughout the year):

| | | |
|--|-----------|-----------|
| Interest expense | \$ 10,000 | |
| Interest payable | | \$ 10,000 |
| To record interest expense at 10% on the \$100,000 debt. | | |

| | | |
|--------------------------------|--------|-----------------------|
| Interest expense | \$ 739 | |
| Interest rate swap (liability) | | \$ 239 ¹⁵⁷ |
| Cash | | 500 |

 To record the change in fair value of the interest rate swap, including net interest paid on the swap, to interest expense.

| | | |
|------------------|--------|--------|
| Debt | \$ 266 | |
| Interest expense | | \$ 266 |

 To record the change in fair value of the debt as a result of the change in the benchmark interest rate.

How we see it

The Example 16 method is likely to gain additional popularity due to the ability of entities to use benchmark rate component cash flows, rather than full contractual coupon cash flows, to calculate the change in fair value of the hedged item. The use of benchmark rate component cash flows eliminates certain of the challenges previously associated with this method when the hedged item was issued at a discount/premium or when the hedging relationship was designated subsequent to the issuance of the hedged item.

¹⁵⁶ Calculated as the cumulative change in fair value of the swap as a percentage of the cumulative change in the fair value of the debt attributable to the change in the LIBOR swap rate (the hedged risk).

¹⁵⁷ \$239 = the difference between the fair value of swap at 31 December 20X2 of \$(1,814) and the fair value of swap at 31 December 20X1 of \$(1,575).

Example 5: Fair value hedge of a commodity inventory using futures contracts

On 1 January 20X2, Company XYZ has 100,000 bushels of wheat, stored at its Denver grain elevator at an average cost of \$2.00 per bushel, which is carried at the lower of cost and net realizable value. To protect the fair value of its wheat inventory against a potential decline in wheat prices, the company sells 20 futures contracts (goes “short”) through its broker on the Chicago Board of Trade (CBOT). Each futures contract requires delivery (sale) of 5,000 bushels of wheat at \$3.00/bushel on 30 June 20X2 (the date of the expected sale of the inventory). The company neither pays nor receives a premium as a result of entering into the futures contracts (i.e., the contract is executed at-market). For purposes of this example, the margin accounts with the clearinghouse have been ignored.

The company’s strategy is to hedge against changes in the fair value of its inventory. If prices fall over the next six months, the gain from the futures contracts held by the company will substantially offset the decline in the fair value of the wheat inventory. However, the hedge may not be perfectly effective. The company is accepting some “basis” risk because the company’s wheat is located in Denver, but the price of the futures contracts is based on delivery of wheat to Chicago.¹⁵⁸ In addition, basis risk also exists if the futures contracts are based on a grade or variety of wheat different from the wheat held by the company in its grain elevator. The company decided to lock in the current spot price of wheat and exclude the change in spot/forward differential from the effectiveness assessment.

The company’s formal documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the fair value of the wheat inventory against adverse changes in the market price of wheat. Changes in the fair value of the CBOT futures contracts due to changes in spot prices are expected to be highly effective in offsetting the overall changes in the fair value of the wheat inventory located in Denver. |
| Date of designation | 1 January 20X2 |
| Hedging instrument | 20 short CBOT futures contracts, each for the sale of 5,000 bushels of wheat at \$3.00 per bushel on 30 June 20X2. |
| Hedged item | 100,000 bushels of wheat inventory stored in the Denver grain elevator |
| How hedge effectiveness will be assessed | Based on historic dollar offset calculations, the spot prices of wheat for delivery in Chicago and for delivery in Denver have been highly correlated over six-month periods and are expected to continue to be highly correlated. On a quarterly basis, hedge effectiveness (both prospective and retrospective) will be assessed on a period-to-period dollar-offset basis by comparing the changes in the fair value of the futures contracts due to changes in the spot price of wheat at the CBOT with the changes in the fair value of the wheat inventory located in Denver. ¹⁵⁹ |

¹⁵⁸ “Basis risk” is the risk that a price difference is created because of differences in a commodity delivery location, quality or grade of commodity, or other commodity-specific variable. For example, an entity stores natural gas in Houston, Texas, but it hedges its inventory using natural gas futures contracts based on delivery of natural gas at the Henry Hub gas collection point in Louisiana. Thus, to the extent there is a difference in the price of natural gas in Houston and the Henry Hub-based futures contract, the difference relates to locational differences such as transportation costs and supply and demand at the different locations. Interest rate instruments can also have basis differences (e.g., different variable-rate indexes, different levels of credit risk, different terms).

¹⁵⁹ The company estimates the fair value of its inventory based on the current spot price of wheat at the CBOT, adjusted for regional factors (including transportation costs between Chicago and Denver). In this example, this is the “Denver spot rate.”

| | |
|--|---|
| | <p>Changes in the fair value of the futures contracts due to changes in the difference between the spot price and the futures price (i.e., time value) will be excluded from the assessment of effectiveness and will be recognized in earnings on a straight-line basis, which the entity has determined is a systematic and rational method in accordance with ASC 815-20-25-83A. Any difference between the change in fair value of the excluded component and amounts recognized in earnings under the systematic and rational method will be recognized in OCI.</p> <p>Note: The initial value of the excluded component in this hedging relationship is \$10,000, calculated by multiplying the 100,000 bushels underlying the futures contracts by the difference between (1) the Chicago spot price on 1 January 20X2 (2.90/ bushel) and (2) the futures price for Chicago delivery on 30 June 20X2 (\$3.00/bushel). We will amortize this amount into earnings using a straight-line method (i.e., \$5,000 each quarter).</p> <p>The hedge meets the criteria for fair value hedge accounting.</p> |
|--|---|

The following chart outlines the key assumptions by relevant date over the life of the futures contracts (spot prices and futures prices show cost per bushel of wheat):

| Assumptions regarding futures contract | | | | | |
|---|---------------------------|--|--|-----------------------------|--|
| Date | Chicago spot price | Futures price for delivery on 6/30/X2 | Fair value of futures¹⁶⁰ | Change in fair value | Change in fair value due to changes in the spot price |
| 1/1/X2 | \$ 2.90 | \$ 3.00 | \$ – | \$ – | \$ – |
| 3/31/X2 | 3.05 | 3.12 | (12,000) ¹⁶¹ | (12,000) ¹⁶² | (15,000) ¹⁶³ |
| 6/30/X2 | 2.80 | 2.80 | 20,000 | 32,000 | 25,000 |

In addition, the spot prices/bushel of wheat in Denver by relevant date are as follows:

| Assumptions regarding Denver spot prices | | |
|---|--------------------------|---|
| Date | Denver spot price | Change in fair value of hedged inventory |
| 1/1/X2 | \$ 2.95 | \$ – |
| 3/31/X2 | 3.09 | 14,000 ¹⁶⁴ |
| 6/30/X2 | 2.82 | (27,000) |

On 1 January 20X2, no entry is required because the fair value of the futures contracts is zero at inception.

¹⁶⁰ Futures are exchange-traded derivatives, meaning that the exchanges act as the counterparty on all contracts, effectively dispersing the exchange's nonperformance risk among the entire membership of the exchange. Additionally, futures are margined daily in that settlement reflecting the change in fair value of the derivative contract takes place daily. Although credit risk may not be eliminated completely, credit exposure associated with both parties to a futures contract is minimal. Accordingly, no CVA is factored into the fair value of futures contracts in this example.

¹⁶¹ The fair value of the futures contracts is determined in this example by multiplying the change in the futures price since inception of the contracts by the notional amount of the contracts. At 31 March 20X2, the calculation is as follows: $(\$12,000) = (\$3.00 - \$3.12) \times 100,000$ bushels. (Discounting is ignored for simplicity purposes.)

¹⁶² Represents the difference in the fair value of the futures contracts between the end of the period and the beginning of the period. Calculation at 31 March 20X2: $(\$12,000) = (\$12,000) - \$0$. (Similarly, on 30 June 20X2, the calculation is as follows: $\$32,000 = \$20,000 - (\$12,000)$.)

¹⁶³ Represents the change in the spot price during the period multiplied by the notional amount of the contracts. Calculation at 31 March 20X2: $(\$15,000) = (\$2.90 - \$3.05) \times 100,000$ bushels. (Similarly, on 30 June 20X2, the calculation is as follows: $\$25,000 = (\$3.05 - \$2.80) \times 100,000$ bushels.)

¹⁶⁴ The change in the fair value of the inventory is equal to the change in the Denver spot price during the period multiplied by the number of bushels of wheat in inventory. Calculation at 31 March 20X2: $\$14,000 = (\$3.09 - \$2.95) \times 100,000$ bushels. At 30 June 20X2: $(\$27,000) = (\$2.82 - \$3.09) \times 100,000$ bushels.

On 31 March 20X2, the company performs its effectiveness assessment and notes that the change in fair value of the futures contracts due to the change in spot prices are highly effective at offsetting the change in fair value of the inventory (based on changes in the Denver spot price). Specifically, the change in the fair value of the futures contracts during the period due to changes in the spot price decreased \$15,000, while the change in value of the inventory during the period increased \$14,000 (a highly effective dollar-offset percentage of 107% [$\$15,000/\$14,000$]). The \$1,000 difference is a result of the basis risk inherent in the hedging relationship. This difference is recognized directly in earnings and does not offset any change in the fair value of the inventory. Therefore, the company would make the following entries (ignoring margin requirements):

| | | | |
|----------------------------|----|--------|-----------|
| Cost of goods sold | \$ | 15,000 | |
| Futures contracts | | | \$ 12,000 |
| Other comprehensive income | | | 3,000 |

To recognize the change in the fair value of the futures contracts attributable to the change in the spot price in cost of goods sold and the change in fair value of the futures contracts attributable to the change in the excluded component in OCI.

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 5,000 | |
| Cost of goods sold | | | \$ 5,000 |

Amortization of the initial value (i.e., \$10,000) of the excluded component into earnings.

| | | | |
|--------------------|----|--------|-----------|
| Wheat inventory | \$ | 14,000 | |
| Cost of goods sold | | | \$ 14,000 |

To recognize the change in the fair value of the inventory due to changes in the hedged risk.

The change in the fair value of the futures contracts can be thought of as arising from two components: the effect of the change in the spot price during the period and the effect of the change in the difference between the spot price and futures price during the period (i.e., the change in fair value of the forward points). Because the company decided to assess effectiveness based on changes in the spot price rather than on changes in the futures price, the effect of changes in the difference between the spot price and the futures price is excluded from the company's assessment of hedge effectiveness. In this example, the futures contracts decreased in value \$12,000 by 31 March 20X2. That decrease in value represents a \$15,000 decline in value related to the change in the spot price ($[\$2.90 - \$3.05] \times 100,000$ bushels) and a \$3,000 increase in value related to the change in the spot-futures difference ($[(\$3.00 - \$2.90) - (\$3.12 - \$3.05)] \times 100,000$ bushels).

The net debit balance in AOCI on 31 March 20X2 of \$2,000 represents the difference between the change in the fair value of the futures contracts due to the excluded component and the amortization of the initial value of the excluded component. This amount has to be separately disclosed in accordance with the requirement in ASC 815-10-50-4C(bb).

The net effect on income (all recognized in cost of goods sold) for the period is a credit of \$4,000 as follows:

| | | |
|---|----|----------------|
| Amortization of excluded component | \$ | 5,000 |
| Mismatch due to basis difference (spot-to-spot) | | <u>(1,000)</u> |
| Total | \$ | 4,000 |

Although the change in time value of the futures contracts is excluded from the assessment of hedge effectiveness, the amortization of the excluded component is required to be recognized in the same income statement line item as the hedged item (i.e., cost of goods sold). The amount amortized has to be separately disclosed in accordance with the requirement in ASC 815-10-50-4C(d).

On 30 June 20X2, the company closes out the futures contracts and sells its entire wheat inventory at the current Denver spot price. The company performs its retrospective effectiveness assessment and notes that the change in fair value of the futures contracts due to the change in spot prices is highly effective at offsetting the change in fair value of the inventory for the period (based on changes in the Denver spot price). Specifically, the change in the fair value of the futures contracts during the period due to changes in the spot price increased \$25,000, while the change in the fair value of the inventory during the period decreased \$27,000 (a highly effective dollar-offset percentage of 93% [$\$25,000/\$27,000$]). The \$2,000 difference is a result of the basis difference inherent in the hedging relationship and is recognized directly in earnings.

The following journal entries would be required:

| | | | |
|----------------------------|----|--------|-----------|
| Futures contracts | \$ | 32,000 | |
| Cost of goods sold | | | \$ 25,000 |
| Other comprehensive income | | | 7,000 |

To recognize the change in the fair value of the futures contracts attributable to the change in the spot price in cost of goods sold and the change in fair value of the futures contracts attributable to the change in the excluded component in OCI.

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 5,000 | |
| Cost of goods sold | | | \$ 5,000 |

Amortization of the initial value (i.e., \$10,000) of the excluded component. (This entry zeros out the amount in OCI since there is no difference between the total change in the fair value of the excluded component and total amount amortized into earnings since the hedge was not discontinued prior to the maturity of the hedging instrument.)

| | | | |
|--------------------|----|--------|-----------|
| Cost of goods sold | \$ | 27,000 | |
| Wheat inventory | | | \$ 27,000 |

To recognize the change in the fair value of the inventory related to the hedging relationship.

| | | | |
|-------------------|----|--------|-----------|
| Cash | \$ | 20,000 | |
| Futures contracts | | | \$ 20,000 |

To record the settlement of the futures contracts. (In actuality, variation margin for the daily change in value of the futures contract would have been required, but the concept of settled-to-market contracts was ignored in this example for simplicity purposes.)

The net effect on income for the period (all recognized in cost of goods sold) before considering the sale of the inventory is a credit of \$3,000:

| | | |
|---|----|----------------|
| Amortization of excluded component | \$ | 5,000 |
| Mismatch due to basis difference (spot-to-spot) | | <u>(2,000)</u> |
| Total | \$ | 3,000 |

| | | | |
|---------------------|----|---------|------------|
| Accounts receivable | \$ | 282,000 | |
| Cost of goods sold | | 187,000 | |
| Sale of wheat | | | \$ 282,000 |
| Wheat inventory | | | 187,000 |

To record the sale of 100,000 bushels of wheat inventory at the current spot price of \$2.82 per bushel. (The carrying amount of the wheat inventory reflects its \$200,000 initial carrying amount on 1/1/X2, plus the \$14,000 adjustment on 3/31/X2 for its increase in fair value, less the \$27,000 adjustment on 6/30/X2 for its decrease in fair value.)

Effect of the hedge on the income statement

The company's gross profit recognized on the sale of inventory was \$95,000 (\$282,000 - \$187,000), the same as it would have been had it sold the inventory on 1 January 20X2 (on that date the spot price was \$2.95 per bushel and the average carrying cost of the inventory was \$2.00). Thus, the Company accomplished the objective of the hedge. However, an additional gain of \$7,000 was also recorded in cost of goods sold over the life of the hedge (i.e., net credit entries recorded to cost of goods sold of \$4,000 and \$3,000 for the periods ended 31 March 20X2 and 30 June 20X2 respectively). This \$7,000 represents a \$10,000 gain related to the forward points on the futures contracts offset by a \$3,000 loss due to the basis mismatch between Denver and Chicago spot prices. The company's decision to recognize excluded components under the amortization method resulted in somewhat less volatile earnings over the life of the hedging relationship. If the company had elected to recognize the change in fair value of the excluded components currently in earnings they would have recorded \$3,000 and \$7,000 for the first and second quarter, respectively. Instead, \$5,000 was recorded each quarter (amortization of the \$10,000 spot-futures difference on a straight-line basis).

Example 6:

Fair value hedging relationship no longer qualifies as highly effective

Assume the same fact pattern as Example 5, *Fair Value Hedge of a Commodity Inventory Using Futures Contracts*, except that the spot price of wheat in Denver on 30 June 20X2 is \$2.92 per bushel rather than \$2.82. Thus, the change in the fair value of the wheat inventory declines \$17,000 during the period ($[\$2.92 - \$3.09] \times 100,000$ bushels) rather than \$27,000, as shown in Example 5. The futures prices are the same as shown previously.

The company's documented policy is to assess hedge effectiveness on a period-by-period basis every three months and to use the dollar-offset method applied on a period-by-period basis rather than a more sophisticated statistical technique. Compliance (or noncompliance) with the highly effective criterion can be calculated as follows (assuming 100,000 bushels of inventory are hedged):

| Hedge effectiveness analysis | | | | | |
|------------------------------|-------------------|-----------------------------------|-----------------|---|---------------|
| | (1) | | | (2) | (2)/(1) |
| Date | Denver spot price | Change in fair value of inventory | CBOT spot price | Change in fair value of effective portion of derivative | Dollar-offset |
| 1/1/X2 | \$ 2.95 | \$ - | \$ 2.90 | \$ - | N/A |
| 3/31/X2 | 3.09 | 14,000 | 3.05 | (15,000) | 107% |
| 6/30/X2 | 2.92 | (17,000) | 2.80 | 25,000 | 147% |

As illustrated, the changes in fair value of the futures contracts due to changes in spot prices are highly effective (107%) at offsetting the changes in fair value of the inventory during the three-month period ending 31 March 20X2. However, on 30 June 20X2, the hedging relationship no longer qualifies for hedge accounting because the highly effective criterion is no longer met. The calculated dollar-offset is outside of the accepted 80%-125% range of effectiveness. The company's management is unable to identify the event or change in circumstances that caused the hedging relationship to fail the effectiveness criterion. As a result, the company does not qualify for fair value hedge accounting for the entire quarter ending 30 June 20X2.

In this situation, the accounting entries are identical to Example 5 for the period ended 31 March 20X2. After 31 March 20X2, all changes in fair value of the futures contracts are recognized in earnings with no offsetting entries related to the changes in fair value of the inventory. The company would record the following journal entries for the period from 31 March 20X2 (the last date on which compliance with the effectiveness criterion was established) to 30 June 20X2:

| | | | |
|----------------------|----|--------|-----------|
| Futures contracts | \$ | 32,000 | |
| Other income/expense | | | \$ 32,000 |

To recognize the change in the fair value of the futures contracts.¹⁶⁵ (Note: Unlike the entry in Example 5, the credit entry is not recorded to cost of goods sold. The company elected to record the effects of the futures contract in other income/expense upon dedesignation, consistent with its policy for derivatives not designated in hedging relationships,¹⁶⁶ and no part of the change in fair value is recognized in OCI. Also, there is no offsetting entry to earnings for the “hedged item” because hedge accounting is not applied in this period since the hedge was not highly effective at offsetting change in the fair value of the hedged item).

| | | | |
|-------------------|----|--------|-----------|
| Cash | \$ | 20,000 | |
| Futures contracts | | | \$ 20,000 |

To record the settlement of the futures contracts.

| | | | |
|---------------------|----|---------|------------|
| Accounts receivable | \$ | 292,000 | |
| Cost of goods sold | | 214,000 | |
| Sale of wheat | | | \$ 292,000 |
| Wheat inventory | | | 214,000 |

To record the sale of 100,000 bushels of wheat inventory at the current spot price of \$2.92 per bushel. (Note that the carrying amount of the wheat inventory is \$214,000, representing the initial carrying amount on 1/1/X2 of \$200,000, plus the \$14,000 adjustment on 3/31/X2 for increases in its fair value during the period that the hedge was effective.)

In addition, in accordance with ASC 815-25-40-7, upon the derecognition of the hedged item (due to the sale of the inventory), the company releases the accumulated debit balance in OCI that relates to the excluded component when the hedge was highly effective. Because the hedging relationship was discontinued before the maturity of the hedging instrument, the amount reported in AOCI did not zero out on its own.

| | | | |
|----------------------------|----|-------|----------|
| Cost of goods sold | \$ | 2,000 | |
| Other comprehensive income | | | \$ 2,000 |

To reclassify the amount in OCI previously deferred for changes in excluded time value into earnings.

¹⁶⁵ At 30 June 20X2, the fair value of the futures is determined as follows: \$20,000 = (\$3.00 – \$2.80) × 100,000 bushels. Change in the fair value of the futures contracts since the prior measurement date (31 March 20X2) is \$32,000 = \$20,000 – (\$12,000). No CVA is factored into the fair value of the futures contract in this example as the nonperformance risk of both counterparties is virtually eliminated by the daily margin requirements (refer to Example 5).

¹⁶⁶ ASC 815 does not provide presentation guidance for derivative instruments that are not designated in a hedging relationship.

Effect of the hedge on the income statement

The company's gross profit recognized on the sale of inventory was only \$76,000 (\$292,000 - \$214,000 + 2,000), as opposed to the \$95,000 in Example 5. An additional gain of \$4,000 was recorded through cost of goods sold during the period ended 31 March 20X2 (representing the amortization of the forward points for the period offset by a \$1,000 loss due to the basis mismatch between Denver and Chicago spot prices).

Although the fair value of the inventory decreased during the period ended 30 June 20X2, no adjustment was made to the carrying value of the inventory in this period because the company lost hedge accounting at the end of the first quarter. However, the entire change in the fair value of the futures contracts for the period (\$32,000 gain) was recorded in earnings as of 30 June 20X2. While this gain was presented in other income/expense (not as a reduction to cost of goods sold), it served as a partial economic hedge for the company's overall income for the period.

Example 7: Hedging the fair value of LIFO inventory through the use of a forward contract

On 31 December 20X2, ABC Automotive Company has 500 batteries in inventory.¹⁶⁷ The Company accounts for its inventory using the LIFO method and has the following layers of inventory:

| LIFO inventory layers at 31 December 20X2 | | | | | | |
|---|-------|---|---------------|---|--|----------|
| Inventory layer | Units | | Original cost | | | Value |
| 20X2 | 100 | @ | \$ 10.00 | = | | \$ 1,000 |
| 20X1 | 200 | @ | \$ 8.00 | = | | \$ 1,600 |
| 20X0 | 200 | @ | \$ 6.00 | = | | \$ 1,200 |

An unusual shortage of batteries causes the spot price to increase to \$20 on 31 December 20X2. On 1 January 20X3, the Company enters into an over-the-counter forward contract to protect the fair value of the battery inventory against the potential decline in battery prices. The forward contract requires the Company to make or receive a payment to or from a local investment bank based on the change in price of 500 batteries relative to the \$22 strike price (per battery) in the 30 June 20X3 forward contract. The Company neither pays nor receives a premium as a result of entering into the forward contract (i.e., the fair value of forward is zero at inception). The Company decided to lock in the current spot price of batteries and exclude the change in spot/forward differential from effectiveness assessment.

Formal hedge designation documentation

| | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the fair value of the battery inventory against adverse changes in market prices. Changes in the fair value of the forward contract due to changes in spot prices are expected to be highly effective in offsetting the overall changes in the fair value of the battery inventory. |
| Date of designation | 1 January 20X3 |
| Hedging instrument | Forward contract to sell 500 batteries for \$22 each (\$11,000) on 30 June 20X3 (to be settled by cash payment based on change in price). The forward contract can be net settled and does not require physical delivery. |
| Hedged item | 500 batteries in inventory at 31 December 20X2 |

¹⁶⁷ This simplified example is intended to illustrate the basic concepts associated with a fair value hedge of inventory. When the LIFO inventory costing method is used by an entity, the actual facts and circumstances may require more complex record keeping to support the application of fair value hedge accounting. Accordingly, in practice many entities will choose to designate a cash flow hedge of the variability in proceeds associated with the forecasted sale of the inventory, instead of a fair value hedge.

| | |
|---|--|
| How hedge effectiveness will be assessed | On a quarterly basis, hedge effectiveness (both prospective and retrospective) will be assessed on a period-to-period dollar-offset basis by comparing the changes in the fair value of the forward contract due to changes in the spot price of batteries with the changes in the fair value of the inventory. At inception, because the critical terms of the forward contract and the inventory coincide (such as dates, quantities, delivery location and underlying batteries), the Company expects changes in the fair value of the forward contract due to the changes in the spot prices of batteries to be perfectly effective in providing dollar-offset to the changes in the fair value of the inventory. There are no mismatches due to basis (locational or grade differences). The change in the fair value of the forward contract related to the changes in the difference between the spot price and the forward price will be excluded from the assessment of hedge effectiveness. In accordance with the guidance in ASC 815-20-25-83B, the company has elected to recognize these changes directly in earnings each period. |
|---|--|

The following chart outlines the key assumed facts by relevant date over the period of the hedge:

| Key assumptions | | | | | |
|------------------------|-------------------|---|---------------------------------------|---|--|
| Date | Spot price | Forward price for 6/30/X3 delivery | Fair value of forward contract | Change in fair value of forward contract | Change in fair value due to changes in the spot price |
| 1/1/X3 | \$ 20.00 | \$ 22.00 | \$ – | \$ – | \$ – |
| 3/31/X3 | 18.00 | 17.00 | 2,413 ¹⁶⁸ | 2,413 ¹⁶⁹ | 1,000 ¹⁷⁰ |
| 6/30/X3 | 15.00 | 15.00 | 3,500 | 1,087 | 1,500 |

On 1 January 20X3, no entry is required because the fair value of the forward contract is zero at inception. At 31 March 20X3, the Company would have made the following entries:

| | | | |
|---|----|-------|----------|
| Forward contract (asset) | \$ | 2,413 | |
| Cost of goods sold | | | \$ 2,413 |
| To recognize the change in fair value of the forward contract. | | | |
| Cost of goods sold | \$ | 1,000 | |
| Inventory | | | \$ 1,000 |
| To recognize the change in fair value of the inventory, based on changes in the spot price. | | | |

The result of the entries above is that the effect of the spot-forward difference for the period, which is excluded from the assessment of hedge effectiveness, is included in cost of goods sold (the income statement line item that is used to present the earnings effect of the hedged inventory).

¹⁶⁸ The fair value of the forward contract can be calculated by multiplying the change in the forward price by the notional amount of the contract (total number of batteries). At 31 March 20X3, the calculation is as follows: $\$2,463 = (\$22 - \$17) \times 500$ batteries, discounted at 6% (assumed to be an appropriate rate) for three months. (Note: No discounting is required at 30 June 20X3, because the forward contract is at maturity.) In addition, the Company determined that a CVA of (\$50) should be included in the fair value measurement of the forward contract, resulting a fair value of \$2,413 as of 31 March 20X3. Note that the inclusion of CVA would not affect the effectiveness of the hedge for evaluating qualification for hedge accounting because the Company applies the "spot-to-spot" method to assess hedge effectiveness, and the CVA would best be attributed to the time value portion of the contract.

¹⁶⁹ Equal to the change in the fair value of the forward contract between the end of the period and the beginning of the period. Calculation: $(\$2,413 - \$0) = \$2,413$.

¹⁷⁰ Equal to the change in the spot price multiplied by the notional amount of the forward contract. At 31 March 20X3, the calculation is as follows: $\$1,000 = (\$20 - \$18) \times 500$ batteries.

During the quarter ended 31 March 20X3, the Company purchased 100 batteries for \$700 (i.e., \$7 each), and sold 50 batteries. At 31 March 20X3, the Company has the following inventory with an adjusted cost basis to reflect the loss in fair value for inventory layers 20X2 – 20X0:

| LIFO inventory layers at 31 March 20X3 | | | | | |
|--|-------|---|------------------------------|---|--------|
| Inventory layer | Units | | Adjusted cost ¹⁷¹ | | Value |
| 20X3 | 50 | @ | \$ 7.00 | = | \$ 350 |
| 20X2 | 100 | @ | 8.00 | = | 800 |
| 20X1 | 200 | @ | 6.00 | = | 1,200 |
| 20X0 | 200 | @ | 4.00 | = | 800 |

Since the Company is hedging the fair value of the inventory that existed on 31 December 20X2, the cost basis adjustment caused by the change in fair value of the inventory does not impact the 50 units added during the period ended 31 March 20X3.

On 30 June 20X3 the Company closes out the forward contract. The following journal entries would be required:

| | | | | |
|--|----|-------|----|-------|
| Forward contract | \$ | 1,087 | | |
| Cost of goods sold | | | \$ | 1,087 |
| To recognize the change in fair value of the forward contract, increasing it to its fair value of \$3,500. | | | | |
| Cost of goods sold | \$ | 1,500 | | |
| Inventory | | | \$ | 1,500 |
| To recognize the change in fair value of the inventory, based on changes in the spot price. | | | | |
| Cash | \$ | 3,500 | | |
| Forward contract | | | \$ | 3,500 |
| To record settlement of forward contract. | | | | |

At 30 June 20X3, the Company has the following inventory with an adjusted cost basis to reflect the loss in fair value for inventory layers 20X2 – 20X0:

| LIFO inventory layers at 30 June 20X3 | | | | | |
|---------------------------------------|-------|---|------------------------------|---|--------|
| Inventory layer | Units | | Adjusted cost ¹⁷² | | Value |
| 20X3 | 50 | @ | \$ 7.00 | = | \$ 350 |
| 20X2 | 100 | @ | 5.00 | = | 500 |
| 20X1 | 200 | @ | 3.00 | = | 600 |
| 20X0 | 200 | @ | 1.00 | = | 200 |

On 1 July 20X3, the Company sells 300 batteries for \$15 (current spot price) and records the following entry:

| | | | | |
|--|----|-------|----|-------|
| Cash | \$ | 4,500 | | |
| Cost of goods sold ¹⁷³ | | 1,300 | | |
| Sales revenue | | | \$ | 4,500 |
| Inventory | | | | 1,300 |
| To record sale of 300 batteries at the current spot price. | | | | |

¹⁷¹ Adjusted cost is calculated as follows: Inventory layer 20X2 = (Original cost of \$10.00 per battery less \$2.00 (\$1,000/500 batteries) to reflect loss due to reduction in fair value of batteries from 1 January 20X3 to 31 March 20X3).

¹⁷² Adjusted cost is calculated as follows: Inventory layer 20X2 = (31 March 20X3 cost of \$8.00 per battery less \$3.00 (\$1,500/500 batteries) to reflect loss due to change in fair value from 31 March 20X3, to 30 June 20X3).

¹⁷³ Cost of goods sold is calculated as follows: 50 units x \$7/unit (\$350) from inventory layer 20X3 plus 100 units x \$5/unit (\$500) from inventory layer 20X2 plus 150 units x \$3/unit (\$450) from inventory layer 20X1 equals \$1,300.

Effect of the hedge on the income statement

The intent of the fair value hedge was to “lock in” the gross margin of the 20X2, 20X1 and 20X0 inventory layers when and if such layers were liquidated between 31 December 20X2 and 30 June 20X3. Since the hedge effectively locked in a fair value of \$20 per unit, it preserved a margin of \$10 per unit (\$20 – \$10) on the 20X2 layer, \$12 per unit (\$20 – \$8) on the 20X1 layer, and \$14 per unit (\$20 – \$6) on the 20X0 layer. The 1 July 20X3 sale demonstrates the effectiveness of this hedge. The gross margin of \$3,200 (\$4,500 – \$1,300) comprises the following:

| Sale of | Units | Margin | Total |
|-----------------------|-------|--------|-----------------|
| 20X3 layer (unhedged) | 50 | \$ 8 | \$ 400 |
| 20X2 layer (hedged) | 100 | 10 | 1,000 |
| 20X1 layer (hedged) | 150 | 12 | <u>1,800</u> |
| | | | <u>\$ 3,200</u> |

In addition, a \$1,000 was recorded as a credit to cost of goods sold over the life of the hedge (\$1,413 credit in the first quarter and a \$413 debit in the second quarter), representing the change in the fair value of the forward contract related to the changes in the difference between the spot price and the forward price. Had the company elected to recognize the initial value of the excluded components using the amortization approach, it would have recorded a \$500 credit to cost of goods sold in both the first and second quarters.

Example 8:**Discontinuation of a fair value hedge of fixed-rate debt**

On 1 January 20X2, ABC Company issues 10-year, \$10,000,000 par value, noncallable bonds with an 8% semiannual fixed-coupon rate. On that date, the market interest rate for bonds of similar quality and maturity is 10%. As a result, the bonds are sold at a discount of \$1,246,000. On the same day, ABC Company also enters into a 10-year interest rate swap with a \$10,000,000 notional amount. Under the swap, ABC Company receives interest at a fixed rate of 7% (the current market SOFR OIS rate) and pays variable interest based on daily SOFR compounded in arrears, with semiannual settlements every 1 July and 1 January until expiration. The swap is entered into “at-market,” and as a result there is no exchange of cash at the initial date of the swap (i.e., the fair value of the swap is zero). ABC Company designates the swap as a hedge of the changes in fair value of the fixed-rate bonds payable due to changes in the SOFR OIS rate, the designated benchmark interest rate. The documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the debt against changes in fair value due to changes in the benchmark interest rate. Changes in the fair value of the interest rate swap are expected to offset changes in the fair value of the fixed-rate bonds due to fluctuations in the SOFR OIS rate, the designated benchmark interest rate. |
| Date of designation | 1 January 20X2 |
| Hedging instrument | \$10,000,000 notional amount, receive-fixed (7%) and pay-floating (daily SOFR compounded in arrears) interest rate swap, dated 1 January 20X2, with semiannual settlements through 1 January 20Y2. |
| Hedged item | \$10,000,000, 8% semiannual fixed-coupon rate bonds payable, due 1 January 20Y2, issued at a discount of \$1,246,000. |
| How hedge effectiveness will be assessed | Because the critical terms of the debt and the interest rate swap match (e.g., principal/notional amounts, maturity/expiration dates) and the other conditions of ASC 815-20-25-102, 25-104 and 25-105 are met, the hedge qualifies for the shortcut method. Therefore, it will be assumed to be perfectly effective against changes in the fair value of the debt due to changes in the benchmark interest rate over its term. There will be no need to periodically reassess the effectiveness during the term of the hedge. On an ongoing basis, the company will consider the likelihood of the swap counterparty’s compliance with its contractual obligations, as well as its own compliance, under the swap in applying the shortcut method. |

As noted in section 4.8.2 for fair value hedges, if the shortcut method is applied, changes in fair value of the swap attributable to changes in creditworthiness of either party, while warranting ongoing monitoring (as long as both parties remain probable of honoring their contractual obligations under the swap), will result in a perfectly effective hedge. In addition, because the designated hedged risk is the risk of changes in fair value of the debt due to changes in the benchmark interest rate, ASC 820 does not affect how the debt's carrying value will be adjusted.

On 1 January 20X2, no entry is required for the swap because its fair value is zero at inception. ABC Company would record the bond issuance on 1 January 20X2 as follows:

| | | |
|---------------------------|--------------|---------------|
| Cash | \$ 8,754,000 | |
| Discount on bonds payable | 1,246,000 | |
| Bonds payable | | \$ 10,000,000 |

To record the issuance of the bonds payable at a discount.

By 30 June 20X2, assume that the SOFR OIS rate has declined. As a result, the fair value of the swap increases from zero to \$600,000 (after CVA). Because the hedge is structured to meet the criteria for application of the shortcut method, the gain in value of the swap is presumed to exactly offset the loss in value of the bonds. On 1 July 20X2, ABC Company would make the following entries:

| | | |
|----------------------------|------------|------------|
| Interest rate swap (asset) | \$ 600,000 | |
| Interest expense | | \$ 600,000 |

To recognize the change in the fair value of the swap.

| | | |
|------------------|------------|------------|
| Interest expense | \$ 600,000 | |
| Bonds payable | | \$ 600,000 |

To recognize the change in the fair value of the bonds payable due to changes in the SOFR OIS rate.

During the six months ended 30 June 20X2, ABC Company also would have accreted the original discount on the bonds using the effective-yield method. Based on an effective interest rate of 10%, ABC Company's discount accretion for the period is \$37,700. In addition, ABC Company would have paid interest on the bonds of \$400,000, received a fixed-rate payment from the swap counterparty of \$350,000, and made a payment based on daily SOFR compounded in arrears to the swap counterparty. The payments, receipts, changes in the fair value of the swap and the bonds, and discount accretion would all be netted in the interest expense account, resulting in interest expense for the period equal to daily SOFR compounded in arrears (the amount paid on the variable leg of the swap) plus 1% (the difference between the 8% fixed rate paid on the bonds and the 7% fixed rate received on the swap) plus the related accretion of the discount (\$37,700).

Note that the hedge accounting in this example is simply "layered on top" of the normal accounting for the bonds. During the period that the hedge is in effect, ABC Company continues its normal procedures for accreting the discount on the bonds, even though the carrying amount of the bonds is being adjusted (e.g., by \$600,000 through 30 June 20X2) because of the hedge. This is permitted because ASC 815 does not require any amortization of the hedge accounting adjustment to the carrying amount of the hedged item until it ceases to be adjusted for changes in its fair value as a result of the hedging relationship. Thus, as long as the hedge is in place, the hedge accounting adjustment to the carrying amount of the bonds does not need to be amortized.

On 1 July 20X2, ABC Company decides to terminate the interest rate swap. ABC Company receives \$600,000, the fair value of the swap, on that date from the counterparty. Because the swap was terminated, hedge accounting must also be discontinued as of 1 July 20X2. Upon discontinuation of a fair value hedge, the carrying amount of the hedged item, including the hedge accounting adjustment, is to be accounted for prospectively in accordance with US GAAP applicable to that item. For interest-bearing financial assets and liabilities, as in this example, the hedge accounting adjustment to the instrument's carrying amount is treated as a premium or discount and is amortized as interest income or interest expense over the remaining life of the instrument on an effective-yield basis.

ABC Company determines the new net carrying amount of the bonds on 1 July 20X2 as follows:

| | |
|--|----------------------------|
| Face amount of bonds (par value) | \$ 10,000,000 |
| Less: Unaccreted discount on bonds | (1,208,300) ¹⁷⁴ |
| Plus: Hedge accounting adjustment of the carrying amount | <u>600,000</u> |
| Net carrying amount on 1 July 20X2 | \$ 9,391,700 |

Based upon the 1 July 20X2 net carrying amount of the bonds, ABC Company recalculates the effective interest rate on the bond at 8.97%. The new amount of net unamortized discount of \$608,300 (\$1,208,300 – \$600,000) will be accreted over the remaining term of the bonds.

Thus, at 31 December 20X2, based on the net carrying amount of the bonds and the recalculated effective interest rate, ABC Company records \$20,966 of discount accretion for the semiannual period.

Effect of the hedge on the income statement

ABC Company's net interest expense each semiannual period is equal to the payments made on the variable leg of the swap (based on daily SOFR compounded in arrears over each semiannual settlement period) plus 1% (the difference in the fixed rate on the bonds and the fixed leg of the swap) plus the accretion of the discount. Because the hedge was structured to qualify for the shortcut method, it is assumed to be perfectly effective. However, after the hedge is discontinued, the hedge accounting adjustment to the bonds' carrying amount is netted against the unaccreted discount on the bonds and is amortized to earnings as an offset to interest expense on an effective-yield basis.

If ABC Company removed the designation of the hedge without settling or otherwise terminating the swap, the changes in the fair value of the swap from that date forward would be recognized in earnings without any additional offsetting adjustment related to the hedged item. At that point, as in the case above, amortization of the adjustment to the hedged item would commence.

Example 9: *Interaction between measurement of credit losses and a fair value hedge of a fixed-rate loan receivable (after the adoption of ASU 2016-13)*¹⁷⁵

On 15 July 20X1, New Bank originates a \$10,000,000, non-prepayable, 8% fixed-rate loan to XYZ Co. The loan is due on 15 July 20X4, with semiannual interest payments due each 15 January and 15 July until maturity. On the same day, New Bank also enters into a three-year interest rate swap with a \$10,000,000 notional amount. Under the swap, New Bank pays interest at a fixed rate of 8% and receives variable interest based on daily SOFR compounded in arrears, with semiannual settlements every 15 January and 15 July until expiration. The swap is entered into "at-market," and as a result there

¹⁷⁴ Original discount (\$1,246,000) less amortization during prior quarter (\$37,700).

¹⁷⁵ ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* clarified the language in ASC 815-25-35-11 to include references to credit loss requirements that would be applicable upon adoption of the ASU. The guidance is effective for fiscal years beginning after 15 December 2019 and interim periods therein for SEC filers that are not smaller reporting companies, and for fiscal years beginning after 15 December 2022 and interim periods therein for all other entities.

is no exchange of cash at the inception of the swap (i.e., the fair value of the swap is zero). New Bank designates the swap as a fair value hedge of its fixed-rate loan receivable. The documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the fair value of the loan against changes due to interest rate risk. Changes in the fair value of the interest rate swap are expected to perfectly offset changes in the fair value of the fixed-rate loan due to fluctuations in the SOFR OIS rate (the designated benchmark interest rate). |
| Date of designation | 15 July 20X1 |
| Hedging instrument | \$10,000,000 notional amount, pay-fixed (8%) and receive-floating (daily SOFR compounded in arrears) interest rate swap, dated 15 July 20X1, with semiannual settlements through 15 July 20X4 |
| Hedged item | \$10,000,000, 8% loan receivable due 15 July 20X4 |
| How hedge effectiveness will be assessed | Because the critical terms of the loan and the interest rate swap match (e.g., principal/notional amount, maturity/expiration date) and the other conditions in ASC 815-20-25-102, 25-104 and 25-105 are met, the hedge qualifies for application of the shortcut method. Therefore, there will be no need to periodically reassess the effectiveness during the term of the hedge. On an ongoing basis, the company will consider the likelihood of each party's compliance with its contractual obligations under the swap to support continued application of the shortcut method. If we determine in any subsequent period that the shortcut method was, or is no longer appropriate, we will assess hedge effectiveness by using a cumulative dollar offset method that compares the change in the fair value of the hedged item caused by changes in the benchmark interest rate to changes in fair value of the actual derivative. |

As noted before for fair value hedges, if the shortcut method is applied, changes in the fair value of the swap attributable to changes in creditworthiness of either party, as long as both parties remain able to perform, will not result in any mismatch between the change in fair value of the hedging instrument and the hedged item that needs to be measured and recorded.

On 15 July 20X1, New Bank records the loan receivable at \$10,000,000. No entry is required for the swap on that date because its fair value is zero at inception.

The allowance for credit losses for the loan is measured on a pool basis with other loans that share similar risk characteristics. New Bank uses a method other than the discounted cash flow method to calculate its allowance for credit losses (e.g., loss rate method, roll-rate method, probability of default/loss given default) for the pool that includes this loan.

At 15 January 20X2, the SOFR OIS rate declines by 100 basis points, or 1%, such that an at-market, identical term swap with one less period remaining that is entered into on 15 January 20X2 would be priced at a 7% pay-fixed rate. Due to the decrease in the SOFR OIS rate, the fair value of the swap decreases by \$226,000 (after the credit valuation adjustment is considered). As a result, the loss in value of the swap is recorded with an equal and offsetting adjustment to the carrying amount of the loan.

At 15 January 20X2, the following entries are recorded:

| | | |
|---|------------|------------|
| Interest income | \$ 226,000 | |
| Interest rate swap (liability) | | \$ 226,000 |
| To recognize the change in the fair value of the swap. | | |
| Loan receivable | \$ 226,000 | |
| Interest income | | \$ 226,000 |
| To recognize the change in the fair value of the loan receivable due to changes in the LIBOR swap rate. | | |

However, also on 15 January 20X2, as part of its normal procedures for estimating credit losses, New Bank determines that the loan's credit quality has deteriorated, and it no longer shares risk characteristics with the other loans in the pool. Pursuant to the provisions in ASC 326-20, New Bank evaluates the loan for credit losses on an individual basis because it no longer shares similar risk characteristics with other loans in the portfolio.

New Bank chooses to use a discounted cash flow approach to calculate the allowance for credit losses. In accordance with the guidance in ASC 815-25-55-86 through 55-90, 35-11 through 35-12 and ASC 326-20-55-9, these expected cash flows are to be discounted at the *new effective interest rate* based on the adjusted amortized cost basis in the hedged loan.

That is, when the amortized cost basis of a loan has been adjusted under fair value hedge accounting, the effective rate is the discount rate that equates the present value of the loan's future contractual cash flows with that adjusted amortized cost basis. Thus, the loan's original effective interest rate is not used to discount cash flows for purposes of measuring the allowance once the amortized cost of the loan is adjusted for any changes in fair value due to the hedged risk. (This guidance applies even though New Bank has chosen not to begin amortizing to earnings the adjustments of the loan's amortized cost arising from fair value hedge accounting until the end of the hedging relationship.)

The impairment loss is calculated as follows:

| | |
|--|------------------|
| Loan amortized cost at 15 January 20X2 | \$ 10,226,000 |
| Less: present value of expected future receipts on the loan ¹⁷⁶ | <u>9,000,000</u> |
| Credit loss at 15 January 20X2 | \$ 1,226,000 |

Based on the calculated allowance for credit loss, New Bank would record the following entry on 15 January 20X2:

| | | |
|-----------------------------|--------------|--------------|
| Credit loss expense | \$ 1,226,000 | |
| Allowance for credit losses | | \$ 1,226,000 |

To recognize the allowance for credit loss on the loan receivable.

As illustrated in this example, the hedged item (the loan receivable) remains subject to the applicable US GAAP requirements for estimating credit losses. Those requirements are applied *after* hedge accounting has been applied for the period and the amortized cost of the hedged item has been adjusted for its change in fair value due to the risk being hedged.¹⁷⁷ In addition, note that the fair value or expected cash flows of the derivative are not considered in the assessment of credit losses for the hedged item.

Assessing credit losses for a hedged asset or liability is necessary because ASC 815 is based on a "bifurcation-by-risk" approach to hedge accounting. In other words, under ASC 815, an entity can choose to hedge the changes in fair value of an asset or liability *due to a specific risk* (such as interest rate risk) rather than the overall changes in fair value of the item. Accordingly, sometimes the amortized cost of a hedged asset or liability can be adjusted in the opposite direction as its overall change in fair value. In this example, the change in fair value of the loan increased due to changes in the SOFR OIS rate (the designated risk being hedged), even though the overall market value of the loan decreased because of a creditworthiness problem with the debtor.

¹⁷⁶ Calculation not illustrated in this example. However, the discount rate used is the rate that reflects the rate of return implicit in the loan after adjusting its carrying amount under fair value hedge accounting.

¹⁷⁷ In a portfolio layer method hedging relationship (or last-of-layer hedging relationship prior to the adoption of ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*), the fair value hedge basis adjustment would not affect the calculation of credit losses. This is because any of the assets in the closed portfolio determined to have credit losses would not be considered part of the last layer amount being hedged.

Effect of the hedge on the income statement

Because the hedge was structured to qualify for the shortcut method, it is assumed to be perfectly effective. However, the \$1,226,000 of credit loss expense recognized as a charge to earnings included the \$226,000 from applying hedge accounting.

Interestingly, if New Bank had decided to hedge the change in fair value of the loan receivable due to the borrower's credit risk with a credit derivative (presuming that it could), the carrying value of the loan receivable would already have been adjusted downward as the credit derivative's fair value increased. The mechanics of the fair value hedge accounting in this case might reduce the amount of the allowance for credit losses on the loan receivable, depending on the outcome of the ASC 326-20 credit loss calculation (which again would use the new effective rate implicit in the adjusted amortized cost of the loan).

6 Cash flow hedges

6.1 What is a cash flow hedge?

Excerpt from Accounting Standards Codification

Master Glossary

Cash Flow Hedge

A hedge of the exposure to variability in the cash flows of a recognized asset or liability, or of a forecasted transaction, that is attributable to a particular risk.

Cash flow hedges protect against the risk that variable prices, costs, rates or terms make future cash flows uncertain. A cash flow hedge is a hedge of the variable cash flow of an anticipated or forecasted transaction that is probable of occurring in the future, but the amount of the transaction has not been fixed. In some circumstances, the anticipated or forecasted transaction is related to a contractual requirement (e.g., a lease requiring variable lease payments based on changes in interest rates),¹⁷⁸ a contract to purchase or sell a nonfinancial asset, a stock appreciation right (SAR) award¹⁷⁹ or an existing balance (e.g., variable-rate long-term debt). However, there is no requirement that the entity be contractually committed to the anticipated or forecasted transaction to achieve cash flow hedge accounting – only that the transaction be probable of occurring. In fact, some of the most common cash flow hedges relate to probable, but not contractually committed transactions, such as the budgeted purchase of a commodity or the payment of interest on a commercial paper program that is probable of continuing.

In a cash flow hedge, the entity is exposed to a variable (e.g., price, cost, interest or exchange rate, or index) and the derivative protects the entity by fixing or “locking in” that variable exposure. This contrasts with fair value hedges, which protect against the risk created by fixed prices, costs, rates or terms (e.g., contracted quantities and prices, fixed-rate debt).

One example of a cash flow hedge is a hedge of the expected proceeds from the sale of an entity’s oil and gas production. The entity, a crude oil producer, expects to produce and sell 100,000 barrels of crude oil during December 20X1. However, it is exposed to variable crude oil prices until the sale occurs. Therefore, in June 20X1, the entity enters into a futures contract to sell 100,000 barrels of crude oil at the current December futures price. If prices decrease between June and December, the entity will sell its production at a reduced amount when it delivers the crude oil, but it will realize a gain on the futures contract. If prices increase, the entity will sell its production at a higher price, but this will be offset by a loss on the futures contract. The futures contract effectively “locks in” the December sales price for the crude oil.

Another example of a cash flow hedge is a hedge of an entity’s variable interest expense on its commercial paper program. To hedge its exposure to variable cash flows, the entity could enter into a receive-variable, pay-fixed interest rate swap. The interest rate swap “fixes” the interest payments associated with the commercial paper program and eliminates the exposure to the risk of changes in cash flows due to changes in interest rates. Fluctuations in cash flows on the commercial paper program and on the interest rate swap will offset.

¹⁷⁸ Refer to ASC 815-20-55-71, 55-73, and 55-198.

¹⁷⁹ Refer to ASC 815-20-55-33.

Fair value exposures and cash flow exposures often are mutually exclusive, and hedging to reduce one exposure generally increases exposure to the other. For example, hedging the variability of interest receipts on a variable-rate loan with a receive-fixed, pay-variable swap “fixes” the interest receipts on the loan and eliminates the exposure to the risk of a change in cash flows, but it creates an exposure to the risk of a change in fair value of the swap. The net cash flows on the loan and the swap will not change with market rates of interest, but the combined fair value of the loan and swap will fluctuate. It follows, therefore, that simultaneous fair value and cash flow hedging of the same risk exposure of an item would not qualify under ASC 815. However, simultaneous fair value and cash flow hedging is permitted if different risk exposures are being hedged because ASC 815 considers each risk exposure separately.

The remainder of this chapter provides discussion and examples of the accounting treatment for cash flow hedges.

6.2 Difference between a forecasted transaction and a firm commitment

Forecasted transactions are eligible for cash flow hedge accounting, while firm commitments are generally only eligible for fair value hedge accounting.¹⁸⁰ Forecasted transactions are broadly defined as probable future transactions that do not meet the definition of a firm commitment under ASC 815. Forecasted transactions can be contractually established or merely probable because of an entity’s past or expected business practices. As discussed previously, for a contract to meet the definition of a firm commitment, all of its relevant terms must be contractually fixed (e.g., price, quantity, timing, interest or exchange rate) and the performance must be contractually required. On the other hand, in a forecasted transaction, either some term of the transaction is variable, or the transaction is not contractually certain. Therefore, the distinguishing characteristic between a forecasted transaction and a firm commitment is the certainty and enforceability of the terms of the transaction.

In the above example of a cash flow hedge of the expected proceeds from the sale of oil and gas production, if the producer contracts in September 20X1 to deliver the crude oil it will produce (a fixed quantity) to a purchaser at a fixed price, on a fixed date, and at a fixed location, then the forecasted sale of crude oil would change from a forecasted transaction to a firm commitment. As the cash proceeds are fixed by the terms of the firm commitment, it is not eligible as a hedged item for a cash flow hedge.

Other examples of forecasted transactions include:

- ▶ The expected issuance of long-term debt (i.e., the interest rate, which is not yet known, is variable)
- ▶ Budgeted (variable) purchases/sales of products at market terms
- ▶ Contracts requiring delivery of specified quantities of a commodity at market (variable) prices
- ▶ Contractually required interest payments on a floating-rate (variable) borrowing arrangement
- ▶ Interest income from an investment with an interest rate linked to the prime rate (variable)

In each of the above cases, the amount of cash to be paid or received is variable and a derivative could be used to fix the amount in a cash flow hedge.

The FASB believes there are several differences between firm commitments and forecasted transactions, regardless of the probability of occurrence, that make it possible to distinguish between them. Firm commitments and forecasted transactions create different exposures to risk. As discussed in chapter 5, firm commitments are fixed-price contracts that expose an entity to a risk of a change in fair value. For

¹⁸⁰ Foreign-currency-denominated firm commitments can be treated as either fair value or cash flow hedge exposures – discussed further in chapter 7.

example, an increase in the market price of a commodity will not affect the cash to be paid to purchase that commodity under a firmly committed contract; however, it will affect the value of that contract. In contrast, forecasted transactions do not have a fixed price and, therefore, expose an entity to a risk of change in the cash to be paid to purchase the commodity in the future.

Because firm commitments and forecasted transactions give rise to different exposures, different hedging strategies must be employed. For example, an entity that hedges a firm commitment to purchase an item (a long position) would generally enter into a derivative to “undo” that fixed price (such as an offsetting short position) and allow it to vary with market conditions. In contrast, an entity that hedges a forecasted purchase of an item would generally enter into a derivative to “fix” the price (such as an offsetting long position).

6.2.1 Firm commitments that are also derivatives (all-in-one hedges)

Because the definition of a derivative established by ASC 815 is so broad, a firm commitment may also meet the definition of a derivative. When this occurs, it will typically relate to contracts for the purchase or sale of a commodity that is readily convertible to cash. In this case, if the contract does not qualify for, or if the reporting entity does not elect, the NPNS scope exception, there is a question as to whether the derivative can be designated as a cash flow hedge of the forecasted transaction that may occur as a result of the contract itself.

Consider, for example, an entity that intends to buy heating oil to use in heating its manufacturing facility. To fix the price to be paid (that is, to hedge the price), the entity enters into a contract with a heating oil broker that meets the definition of a firm commitment. Although the contract can be settled only by the delivery of the specified amounts of heating oil at a fixed price at various future dates, the underlying commodity (i.e., heating oil) is determined to be readily convertible to cash. Accordingly, the contract satisfies the net settlement requirements of ASC 815’s definition of a derivative and, therefore, would be subject to the provisions of ASC 815.

ASC 815-20-25-22 indicates that in a situation in which a contract is subject to the requirements of ASC 815, it may be designated as a cash flow hedge of the variability of the consideration to be paid or received in the forecasted transaction that will occur upon gross settlement of the derivative contract itself. In such a situation, if the cash flow hedge criteria are met with respect to the contract, the changes in fair value of the contract will initially be recorded in OCI. The total consideration paid or received upon fulfillment of the contract (for accounting purposes) is the sum of the fixed amount of cash paid or received and the recorded fair value of the contract.

To complete the heating oil example, the contract would be carried at its fair value at each financial reporting date. Provided that the entity satisfies the criteria to designate the contract in a cash flow hedge, changes in its value would be recorded in OCI. Upon delivery of heating oil as a result of the contract, the heating oil would initially be recorded at the sum of the amount paid pursuant to the contract and the asset or liability recorded for the fair value of the satisfied portion of the contract. This will result in the heating oil being recorded at its fair value at the delivery date. The amount recorded in OCI represents the difference between the fair value of the heating oil at the date it is acquired and the hedged cost. It would be reclassified to earnings when the cost of the acquired heating oil affects earnings.

This guidance applies to fixed-price contracts to acquire or sell a nonfinancial or financial asset that will involve gross settlement and that are accounted for as derivative instruments under ASC 815, provided the criteria for a cash flow hedge are met.

6.2.2 Identification of forecasted transactions

As previously discussed in chapter 4, the documentation required by ASC 815 as a prerequisite to applying hedge accounting includes a requirement that the hedged forecasted transaction be specifically identified. This can become complex when dealing with cash flow hedges of forecasted transactions. The key is that the designation must be specific enough so that when the transaction occurs, the transaction can be unmistakably identified as the item that was previously designated as being hedged. After the derivative is designated, there can be no subjectivity in determining which transactions were hedged and which were not.

The hedge documentation should include all of the relevant details about the forecasted transaction, including:

- ▶ The date on, or the period within which, the forecasted transaction is expected to occur
- ▶ The specific nature of the asset or liability involved (if any)
- ▶ The expected currency amount or physical quantity of the forecasted transaction

The manner in which the hedged forecasted transaction is documented can have important implications for a hedging relationship. For example, designating the hedged item narrowly (e.g., cash flows from a specific instrument) as opposed to broadly (e.g., forecasted variable interest rate payments) can result in a different accounting treatment. A broader designation of the hedged item (as opposed to a hedge of cash flows from a specific instrument that might experience prepayments, be sold or experience credit difficulties) has a better chance of surviving changes or substitutions in the underlying instruments producing the cash flows. This concept is illustrated in ASC 815-30-55-52 through 55-56.

How we see it

It is also important to note that the requirement to specifically identify the hedged forecasted transaction is separate and distinct from the requirement to identify the hedged risk. As discussed in chapter 4, a change in the hedged risk does not result in an automatic dedesignation of the hedging relationship. While ASC 815 allows hedging relationships to continue if the hedging instrument provides a highly effective offset to the revised risk, this relief does not extend to the identification of the forecasted transaction, and as a result, entities need to carefully consider how forecasted transactions are described.

6.2.2.1 Hedging the 'first payments received or paid' in a forecasted transaction

In some cases, an entity may be unable to identify the exact source or recipient of the cash flows it wants to designate as the hedged item. In these instances, the entity may still be able to designate the forecasted transaction(s) in a manner that meets ASC 815's requirements that the hedged forecasted transactions be described with sufficient specificity so that when a transaction occurs, it is clear whether that transaction is or is not the hedged transaction. This can be done through a hedge designation approach that is commonly referred to as the "first-payments-received" technique.

This approach is illustrated in the example provided in ASC 815-20-55-88 through 55-96. In this example, Entity A is looking to hedge the cash flow variability associated with a group of variable-rate loans. Entity A identifies the hedged forecasted transactions as the *first* LIBOR-based interest payments received during each four-week period (as defined) over the next three years. The amount of the forecasted interest payments designated as being hedged each period is based on a \$100 million principal of its then existing LIBOR-indexed floating-rate loans. Any LIBOR-based interest payments received by Entity A after it has received payments on \$100 million aggregate principal would be unhedged interest payments for that period.

Another example provided in ASC 815-30-55-142 through 55-148 illustrates a hedging relationship with the hedged forecasted transactions being purchases of plastic of various grades by two different plant locations. The contract under which the purchases are made specifies that the purchase price for all grades includes the month-end Joint Plastic (JP) index. Therefore, the entity designates the hedged risk as changes in cash flows attributable to the change in that index. Because the entity does not know how many pounds of each grade each plant will purchase, it designates the hedged forecasted transactions as the *first* XXX pounds of plastic purchased in each month regardless of grade or delivery location.

While the hedged forecasted transactions in both these examples are designated without specifically identifying the exact *source* of the cash flows (i.e., which instrument, grade or delivery location), the “first-payments-received” technique results in sufficient specificity that the transactions are able to be unmistakably identified as the hedged item when they occur. Therefore, ASC 815’s requirement to specifically identify the hedged item is met.

In addition, ASC 815-20-55-33G indicates that the “first-payments-received” technique can also be applied when the designated hedged risk is the risk of overall changes in the cash flows of a variable-rate financial instrument (as opposed to a specified index or interest rate).

6.3

Recognition and presentation of cash flow hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Subsequent Measurement

Subsequent Recognition and Measurement of Gains and Losses on Hedging Instrument

815-30-35-3

When the relationship between the hedged item and hedging instrument is highly effective at achieving offsetting changes in cash flows attributable to the hedged risk, an entity shall record in **other comprehensive income** the entire change in the fair value of the designated hedging instrument that is included in the assessment of hedge effectiveness. More specifically, a qualifying **cash flow hedge** shall be accounted for as follows:

- a. An entity’s defined risk management strategy for a particular hedging relationship may exclude a specific component of the gain or loss, or related cash flows, on the hedging derivative from the assessment of hedge effectiveness (as discussed in paragraphs 815-20-25-81 through 25-83B). That excluded component of the gain or loss shall be recognized in earnings either through an amortization approach in accordance with paragraph 815-20-25-83A or through a mark-to-market approach in accordance with paragraph 815-20-25-83B. Under either approach, the amount recognized in earnings for an excluded component shall be presented in the same income statement line item as the earnings effect of the hedged item in accordance with paragraph 815-20-45-1A. For example, if the effectiveness of a hedging relationship with an option is assessed based on changes in the option’s **intrinsic value**, the changes in the option’s **time value** would be excluded from the assessment of hedge effectiveness and either may be recognized in earnings through an amortization approach in accordance with paragraph 815-20-25-83A or currently in earnings in accordance with paragraph 815-20-25-83B.
- b. Amounts in accumulated other comprehensive income related to the derivative designated as a hedging instrument included in the assessment of hedge effectiveness are reclassified to earnings in the same period or periods during which the hedged forecasted transaction affects earnings in accordance with paragraphs 815-30-35-38 through 35-41 and presented in the same income statement line item as the earnings effect of the hedged item in accordance with

paragraph 815-20-45-1A. The balance in accumulated other comprehensive income associated with the hedged **transaction** shall be the cumulative gain or loss on the derivative instrument from inception of the hedge less all of the following:

- 1a. The derivative instrument's gains or losses previously reclassified from accumulated other comprehensive income into earnings pursuant to paragraphs 815-30-35-38 through 35-41.
- 1b. The cumulative amount amortized to earnings related to excluded components accounted for through an amortization approach in accordance with paragraph 815-20-25-83A.
- 1c. The cumulative change in fair value of an excluded component for which changes in fair value are recorded currently in earnings in accordance with paragraph 815-20-25-83B.

If hedge accounting has not been applied to a cash flow hedging relationship in a previous effectiveness assessment period because the entity's retrospective evaluation indicated that the relationship had not been highly effective in achieving offsetting changes in cash flows in that period, the cumulative gain or loss on the derivative referenced in (b) would exclude the gains or losses occurring during that period. That situation may arise if the entity had previously determined, for example, under a regression analysis or other appropriate statistical analysis approach used for prospective assessments of hedge effectiveness, that there was an expectation in which the hedging relationship would be highly effective in future periods. Consequently, the hedging relationship continued even though hedge accounting was not permitted for a specific previous effectiveness assessment period.

- d. If a non-option-based contract is the hedging instrument in a cash flow hedge of the variability of the functional-currency-equivalent cash flows for a recognized foreign-currency-denominated asset or liability that is remeasured at spot exchange rates under paragraph 830-20-35-1, an amount that will both offset the related transaction gain or loss arising from that remeasurement and adjust earnings for that period's allocable portion of the initial spot-forward difference associated with the hedging instrument (cost to the purchaser or income to the seller of the hedging instrument) shall be reclassified each period from other comprehensive income to earnings if the assessment of effectiveness is based on total changes in the non-option-based instrument's cash flows. If an option contract is used as the hedging instrument in a cash flow hedge of the variability of the functional-currency-equivalent cash flows for a recognized foreign-currency-denominated asset or liability that is remeasured at spot exchange rates under paragraph 830-20-35-1 to provide only one-sided offset against the hedged **foreign exchange risk**, an amount shall be reclassified each period to or from other comprehensive income with respect to the changes in the **underlying** that result in a change in the hedging option's intrinsic value. In addition, if the assessment of effectiveness is based on total changes in the option's cash flows (that is, the assessment will include the hedging instrument's entire change in **fair value** – its entire gain or loss), an amount that adjusts earnings for the amortization of the cost of the option on a rational basis shall be reclassified each period from other comprehensive income to earnings. This guidance is limited to foreign currency hedging relationships because of their unique attributes and is an exception for foreign currency hedging relationships.

Reclassifications from Accumulated Other Comprehensive Income into Earnings

815-30-35-38

Amounts in accumulated other comprehensive income that are included in the assessment of effectiveness shall be reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings (for example, when a forecasted sale actually occurs) and shall be presented in the same income statement line item as the earnings effect of the hedged item in accordance with paragraph 815-20-45-1A. If an entity excludes a component of a hedging instrument from the assessment of effectiveness, an entity shall apply the guidance in paragraphs 815-20-25-83A through 25-83B.

815-30-35-39

If the hedged transaction results in the acquisition of an asset or the incurrence of a liability, the gains and losses in accumulated other comprehensive income that are included in the assessment of effectiveness shall be reclassified into earnings in the same period or periods during which the asset acquired or liability incurred affects earnings (such as in the periods that depreciation expense, interest expense, or cost of sales is recognized).

815-30-35-40

However, if an entity expects at any time that continued reporting of a loss in accumulated other comprehensive income would lead to recognizing a net loss on the combination of the hedging instrument and the hedged transaction (and related asset acquired or liability incurred) in one or more future periods, a loss shall be reclassified immediately into earnings for the amount that is not expected to be recovered.

815-30-35-41

For example, a loss shall be reported in earnings for a derivative instrument that is designated as hedging the forecasted purchase of inventory to the extent that the cost basis of the inventory plus the related amount reported in accumulated other comprehensive income exceeds the amount expected to be recovered through sales of that inventory. (Impairment guidance is provided in paragraphs 815-30-35-42 through 35-43.)

815-30-35-45

If the variable-rate interest on a specific borrowing is associated with an asset under construction and capitalized as a cost of that asset, the amounts in accumulated other comprehensive income related to a cash flow hedge of the variability of that interest shall be reclassified into earnings over the depreciable life of the constructed asset, because that depreciable life coincides with the amortization period for the capitalized interest cost on the debt.

A derivative designated and highly effective as a hedge of a forecasted transaction is carried at fair value with the entire change in the fair value of the derivative instrument that is included in the assessment of hedge effectiveness recorded in OCI (i.e., a separate component of shareholders' equity) and subsequently recognized in earnings in the same period or periods that the hedged forecasted transaction affects earnings. At that time, the amount reclassified from AOCI is presented in the same income statement line as the earnings effect of the hedged item. Unlike a fair value hedge, there are no adjustments to the carrying values of any assets or liabilities because the hedged transaction has not yet occurred.

ASC 815-30-35-45 provides guidance on the reclassification of amounts in AOCI when an entity hedges interest on a variable-rate borrowing associated with an asset under construction where interest is capitalized in accordance with ASC 835-20. The amounts recognized in AOCI are not permitted to be capitalized as part of the cost of the asset. Instead, these amounts remain in AOCI until the company begins depreciating the constructed asset. The amount recognized in AOCI is then reclassified to income as depreciation is recorded (i.e., over the depreciable life of the constructed asset).

How we see it

It is important to note that the amounts stored in AOCI are not reclassified into earnings until the hedged transaction affects earnings. This timing could be subsequent to the occurrence of the forecasted transaction if, upon occurrence of the forecasted transaction, it is initially recognized on the balance sheet and not the income statement.

For example, the change in the fair value of a derivative instrument (included in the assessment of hedge effectiveness) hedging the commodity price risk of anticipated inventory purchases is recorded in OCI and subsequently recognized in cost of goods sold at the date the inventory is sold rather than at the time the inventory is purchased. This may introduce operational challenges in tracking the hedged inventory purchases through production to its ultimate sale in a finished product.

Similarly, the change in the fair value of a derivative instrument (included in the assessment of hedge effectiveness) hedging an anticipated fixed-asset purchase is initially deferred in OCI and amortized as an adjustment to depreciation expense over the depreciable life of the fixed asset.

As a third example, the change in the fair value of a derivative instrument (included in the assessment of hedge effectiveness) locking in a component of the fixed rate at which debt is anticipated to be issued is initially deferred in OCI and reclassified to interest expense over the life of the debt as the fixed-rate interest obligations affect earnings.

ASC 815 does not permit basis adjustments for cash flow hedges. Consequently, in the above examples, the carrying values of the inventory, the fixed assets and the fixed-rate debt are not adjusted. However, the earnings impact of the hedging relationship is recognized in the income statement in the same period that the risk affects earnings as a result of the timing of the reclassification of the hedge result from OCI into income. In addition, this amount is required to be recorded in the same income statement line as the earnings effect of the hedged item.

As noted above, the general rule is that amounts stored in AOCI are to be reclassified into earnings when the hedged transaction affects earnings. However, ASC 815-30-35-40 through 35-41 describe an exception to that rule, which occurs whenever an entity expects that continued reporting of a loss in AOCI will lead to recognizing a net loss on the combination of the hedging instrument and the hedged transaction in a future period. In those situations, the loss must be reclassified immediately into earnings for the amount that is not expected to be recovered. For example, a loss must be reported in earnings for a derivative that is designated as hedging the forecasted purchase of inventory to the extent that the cost basis of the inventory plus the related amount reported in AOCI exceeds the amount expected to be recovered through sales of that inventory.

In addition, any amounts recorded in AOCI are generally required to be reclassified into earnings if it becomes probable that the hedged forecasted transaction will not occur by the end of the time period originally specified in the hedge documentation or within an additional two-month period of time. An exception to this requirement, along with the accounting upon discontinuation of a cash flow hedging relationship, is further discussed later in this chapter.

ASC 815 includes two examples that address the reclassification of amounts recorded in AOCI in certain situations. The first example (in ASC 815-30-55-94 through 55-99) illustrates the impact on AOCI of issuing debt with a term that is shorter than originally forecasted. The second example (in ASC 815-30-55-128 through 55-133) illustrates the impact on AOCI from issuing debt at a date that is not the same as originally forecasted.

In the first example, Company A expects to issue 10-year fixed-rate debt in six months, at or near par at the then-current market interest rate. Company A is exposed to variability in cash flows in the future quarterly interest payments on the debt due to changes in the benchmark interest rate that will occur during the six-month period prior to issuance. In order to hedge the risk of changes in these 40 quarterly interest payments attributable to changes in the benchmark interest rate for the six-month period, the entity enters into a derivative contract (for example, a forward-starting interest rate swap) and documents that it is hedging the variability in the 40 future quarterly interest payments, attributable to changes in the benchmark interest rate, over the next 10 years related to its 10-year borrowing program that begins in six months. Six months after inception of the hedging relationship, the entity issues debt. However, due to market conditions, the entity decides in the week before issuance that it will issue fixed-rate debt with a five-year maturity, rather than 10 years, and quarterly interest payments.

When the entity decides that the term of the debt to be issued will differ from the term of the debt originally expected to be issued, the entity should not immediately reclassify into earnings the *entire* net gain or loss in AOCI related to the derivative contract just because a different debt instrument was issued. The entity

originally documented it was hedging 40 forecasted transactions (forecasted quarterly interest payments) that would begin in six months' time and continue over a 10-year period. The hedging relationship is terminated no later than when five-year debt is issued (because the variability of the first 20 hedged payments ceases on that date) and the entity must determine the amount, if any, to be reclassified into earnings from AOCI related to the net derivative gain or loss of the terminated cash flow hedge.¹⁸¹ Since five-year debt was issued, the entity knows it is probable that the first 20 forecasted transactions will occur (they are now contractual obligations).

However, the entity must also determine whether it is probable that the last 20 forecasted transactions will not occur. Even though only five-year debt was actually issued, the cash flows for years 6-10 may still be possible (e.g., if the entity asserts it will roll over or replace the debt in five years such that there will be interest rate payments in the future). If so, the change in fair value of the derivative (included in the assessment of hedge effectiveness) remains in AOCI. If any of the future cash flows are now probable not to occur, either by the end of the date (or within the time period) originally specified or within an additional two-month period of time thereafter, the entity should reclassify into earnings from AOCI the amount of the net derivative gain or loss related to those specific improbable forecasted transactions. That amount should be equivalent to the portion of the present value of the derivative's cash flows intended to offset those cash flows.

A somewhat related issue is discussed in the second example. In this case, two entities are contrasted to illustrate a change in the expected timing of transactions and its impact on reclassifications from AOCI. In this example:

- ▶ Company A expects to issue fixed-rate, 10-year debt in six months at or near par at the then-current market interest rate. To hedge the risk of changes in these 40 quarterly interest payments attributable to changes in the benchmark interest rate for the six-month period, the entity enters into a derivative contract (for example, a forward-starting interest rate swap) and documents that it is hedging the variability in the 40 future quarterly interest payments, attributable to changes in the benchmark interest rate, over the next 10 years related to its 10-year debt program that begins in six months. Six months after inception of the hedging relationship, the entity decides to delay the issuance of the 10-year debt for three months.
- ▶ Company B expects to issue fixed-rate, 10-year debt in six months at a rate of 9%. Because the debt will have a fixed interest rate of 9% regardless of then-current market rates (producing a premium or discount on the debt), Company B will be exposed to variability in the cash flows received as proceeds on the debt due to changes in the benchmark interest rate risk that occur during the six-month period prior to issuance. In order to hedge the risk of changes in the total proceeds attributable to changes in the benchmark interest rate, the entity enters into a derivative contract (for example, a short position in U.S. Treasury note futures contracts) and documents that it is hedging the variability in the cash proceeds attributable to changes in the benchmark interest rate to be received from the 9% fixed-rate debt it will issue in six months. Six months after inception of the hedging relationship, the entity decides to delay the issuance of the debt for three months.

¹⁸¹ When the entity decides that the term of the debt will be different than originally documented, it must first assess effectiveness using the newly revised best estimate of the cash flows to determine whether the hedge was highly effective retrospectively for the most recent assessment period, as well as prospectively for future periods. The relationship may not be perfectly effective, as the original hedging instrument was based on an expected 10-year issuance (and thus 10-year borrowing rates), but only a five-year instrument was issued (based on five-year borrowing rates). For example, if the entity used the hypothetical-derivative method to assess effectiveness and its new best estimate was that it would issue another five-year debt instrument at the beginning of year six, two hypothetical derivatives would be necessary to appropriately assess effectiveness: (1) a six-month forward-starting five-year swap (that is effective in one week) and (2) a five-and-a-half-year forward-starting five-year swap (that is effective at the beginning of year six).

This example illustrates how the difference in hedge designations between Company A and Company B affects each company's subsequent accounting when each company's debt issuance is delayed. For Company A, it means that one of the hedged interest payments under the derivative (the first quarterly interest payment) is now not probable of occurring within two months of its specified date. However, it is probable that the other 39 forecasted transactions will occur at the time forecasted. The amount immediately reclassified into earnings from AOCI is the portion of the swap's net gain or loss attributable to the first forecasted cash flow that is now probable not to occur.

For Company B, the cash flow being hedged was a single flow (the proceeds from the issuance of debt in six months). When the entire single forecasted transaction is no longer probable of occurring by the date (or within the time period) originally specified, the entity must terminate the hedging relationship. Since Company B decided to delay the issuance of the debt for three months, it must conclude that it is probable that the forecasted transaction (as previously designated) will not occur by the date (or within the time period) originally specified or within an additional two-month period of time thereafter. Consequently, Company B would immediately reclassify into earnings the entire net gain or loss related to the derivative contract in AOCI.

Note that in both illustrative examples, the FASB warns that a pattern of determining that hedged forecasted transactions probably will not occur would call into question both an entity's ability to accurately predict forecasted transactions and the propriety of using hedge accounting in the future for similar forecasted transactions, as described in ASC 815-30-40-5. Thus, the nonoccurrence of one of the hedged forecasted transactions described above could potentially jeopardize the entity's ability to use cash flow hedge accounting in the future for similar situations.

As discussed above, ASC 815 requires the entire change in the fair value of the hedging instrument included in the assessment of hedge effectiveness to be deferred in AOCI until the hedged transaction affects earnings. At that time, that amount is reclassified from AOCI to the same income statement line as the earnings effect of the hedged item.

ASC 815 does not address the presentation of amounts that are required to be reclassified out of AOCI when it is probable that the hedged forecasted transaction will not occur (i.e., when there is a missed forecast). As a result, entities are not required to present amounts recorded in earnings upon a missed forecast in the same income statement line where the earnings effect of the hedged item would have been presented. However, ASC 815-30-35-44 does specify that if the reclassification to earnings from AOCI results from a cash flow hedge of debt when that debt is extinguished, the amount reclassified is not included in the extinguishment gain or loss line.

How we see it

During deliberations leading to the issuance of ASU 2017-12, the FASB considered providing presentation guidance for amounts reclassified out of AOCI due to a missed forecast but ultimately decided against it based on feedback from both preparers and users. The Board concluded that financial reporting would not be improved by requiring entities to present amounts recorded in earnings upon a missed forecast in the same income statement line where the earnings effect of the hedged item would have been presented, noting that this presentation would not provide decision-useful information and could result in potentially distortive effects on individual income statement line items.¹⁸²

¹⁸² Refer to paragraphs BC139 and BC140 of the Basis for Conclusions of ASU 2017-12.

This is because when an entity experiences a missed forecast, it would record only the earnings effect of the hedging instrument (previously deferred in AOCI) in the line item intended to be hedged. There is no offsetting earnings effect from a hedged item because the forecasted transaction being hedged did not occur. For example, in a missed forecasted sales transaction, an entity would record the change in the fair value of the hedging instrument in revenue, but there would be no corresponding effect on revenue from the sale (which did not occur). Based on the concerns identified by the FASB, we believe that entities will generally record amounts reclassified from AOCI into earnings upon a missed forecast in a separate line item (e.g., other income or expense).

6.3.1 Excluded components

As discussed in section 4.8.3.5, the recognition model for excluded components is an amortization approach, whereby the initial value of the excluded component is recognized in the same income statement line as the earnings effect of the hedged item using a systematic and rational method over the life of the hedging instrument. Any difference between the change in the fair value of the excluded component during the period and the amount amortized into earnings during the period under the systematic and rational method is deferred in AOCI. The difference recorded in OCI should zero out over the life of the hedging relationship, assuming the hedging relationship is not discontinued early. Refer to section 6.7.1 for a discussion of the treatment of excluded components when a hedging relationship is discontinued.

The requirement to present changes in excluded components in the same income statement line as the earnings effect of the hedged item also applies if an entity elects to recognize the change in fair value of any excluded components in earnings immediately, instead of following the amortization approach for excluded components.

6.3.2 Derivatives with a non-zero fair value (updated September 2022)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Subsequent Measurement

Non-Zero Fair Value of Hedging Derivative at Hedge Inception

815-30-35-41A

An entity may designate a hedging derivative with periodic cash settlements and a non-zero fair value at hedge inception as the hedging instrument in a qualifying cash flow hedging relationship. In this situation, amounts related to the initial fair value that are recorded in other comprehensive income during the hedging relationship shall be reclassified from accumulated other comprehensive income to earnings on a systematic and rational basis over the periods during which the hedged forecasted transactions affect earnings. Amounts reclassified to earnings shall be presented in the same income statement line item as the earnings effect of the hedged item. This guidance applies to both option-based and non-option-based derivatives designated as hedging instruments in a cash flow hedge.

815-30-35-41B

This paragraph illustrates a method of reclassifying amounts from accumulated other comprehensive income to earnings when an option-based derivative is designated as a hedging instrument and the assessment of effectiveness is based on total changes in the derivative's cash flows. Those amounts include changes in fair value related to the derivative's initial intrinsic value in accordance with paragraph 815-30-35-41A. For example, the fair value of a single cap at the inception of a hedging relationship of interest rate risk on variable-rate debt with quarterly interest payments over the next two years should be allocated to the respective caplets within the single cap on a fair value basis at the inception of the hedging relationship. The change in each respective allocated fair value amount should be reclassified out of accumulated other comprehensive income into earnings when each of the hedged **forecasted transactions** (the eight interest payments) affects earnings. Because the amount in

accumulated other comprehensive income is a net amount composed of both derivative instrument gains and derivative instrument losses, the change in the respective allocated fair value amount for an individual caplet that is reclassified out of accumulated other comprehensive income into earnings may possibly be greater than the net amount in accumulated other comprehensive income.

815-30-35-41C

This guidance has no effect on the accounting for fair value hedging relationships. In addition, in determining the accounting for seemingly similar cash flow hedging relationships, it would be inappropriate to analogize to this guidance.

ASC 815 is clear that derivative instruments with periodic cash settlements (such as an interest rate swap or a cap made up of various caplets) may be used as the hedging instrument in cash flow hedging relationships even when the fair value of the derivative is not zero at hedge inception. Option contracts typically have an initial fair value other than zero, which represents the premium paid for the option's time value. For a forward contract or an interest rate swap, a non-zero fair value typically implies that the terms of the derivative instrument are "off-market" at the inception of the hedge (e.g., the fixed rate on the swap differs from the market swap rate on the date the hedge is designated or redesignated).

Some common examples of "off-market" derivatives being used in a hedging relationship include the following:

- ▶ "Blend and extend" transactions – An entity renegotiates the terms of its existing pay-fixed, receive variable interest rate swap (liability) that was designated in a cash flow hedge to (1) extend the maturity date so that the expected cash outflows on the swap are spread over a longer period of time and (2) amend the fixed rate so that the fair value of the swap remains essentially the same before and after the amendments. The entity designates the amended swap, which has a non-zero fair value, as the hedging instrument in a new cash flow hedging relationship because it has eligible forecasted transactions during the extended time frame of the renegotiated swap.¹⁸³
- ▶ Acquirer in business combination seeks to use acquired company's derivatives in redesignated hedge relationships – Because hedge designations don't carry over in acquisitions, an acquirer that wants to continue hedging a risk it inherits from an acquiree using the acquired hedging instrument would need to designate a new hedging relationship using this off-market derivative. For example, if Company S is a party to an interest rate swap used in a highly effective cash flow hedge of its exposure to changes in interest rates on its floating-rate debt and is acquired by Company P, Company P is now exposed to the same interest rate risk on the floating-rate debt it inherited from Company S and may want to hedge its exposure using the same interest rate swap. However, in order to apply hedge accounting, Company P must designate this as a new hedging relationship, and at the time of the designation, the interest rate swap is off market because the derivative does not have a fair value of zero.
- ▶ Entity changes the method of assessing hedge effectiveness during the life of the hedge – While entities are permitted to change the method they use to assess hedge effectiveness in an existing hedge, they are required to dedesignate and redesignate the hedging relationship to make this change. For example, if a company that uses a plain vanilla forward contract as a hedge of a forecasted sale decides to change its method of assessing hedge effectiveness from the dollar-offset method to a statistical-based approach using regression, the company is required to designate the same hedging relationship anew, and the forward is off market at the beginning of the new hedging relationship.

¹⁸³ In this transaction, the swap counterparty has essentially financed the entity's payoff of the original swap by structuring the financing into the terms of the new swap, while simultaneously reflecting the shape of the current interest rate curve over the new time horizon. As a result, both counterparties would need to assess whether the renegotiated swap represents a derivative instrument in its entirety or is instead a hybrid instrument (i.e., a financing with an embedded at-market interest swap).

- ▶ Attempt to restart hedge accounting following a documentation deficiency – An entity attempting to reestablish a hedging relationship that failed due to inadequate documentation needs to correct its documentation and support an expectation that the redesignated relationship will be highly effective using a derivative whose fair value may have moved significantly off market relative to a new derivative that would begin on the date the documentation is corrected. This situation may arise if a company believes it has qualified for hedge accounting but discovers a few months later that its documentation doesn't address all of the requirements in ASC 815-20-25-03. The company must support its expectation that the redesignated relationship is highly effective using the now off-market derivative, even if the initial hedge that failed was perfectly effective.

When an off-market non-option derivative is used as the hedging instrument, as illustrated in the examples above, the hedging relationship will not be perfectly effective. As a result, the off-market element of the hedging instrument will generally be recognized in earnings over the periods during which the hedged forecasted transactions affect earnings using a systematic and rational approach (as discussed further below).

The fair value of a derivative at the date that the hedger decides to designate or redesignate the derivative in a new hedging relationship is generally the amount that would have to be paid to settle a derivative liability or the amount that would be received to settle a derivative asset at that date. To determine if an off-market derivative qualifies for hedge accounting, the impact of the off-market amount on the effectiveness of the hedging relationship must be evaluated. Specifically, it is the change in fair value of the off-market portion of the derivative that impacts effectiveness, not the eventual settlement(s) of the off-market portion.

Conceptually, an off-market derivative asset can be thought of as containing an “embedded loan receivable,” and an off-market derivative liability can be thought of as containing an “embedded loan payable.”¹⁸⁴ For example, an entity with a derivative liability that wants to enter into a new at-market derivative (with a fair value of zero) without a net cash outflow could terminate the old derivative and agree to enter into an at-market derivative at zero fair value with the counterparty and simultaneously borrow through a traditional loan the amount necessary to terminate the old derivative.

In addressing the treatment of non-zero fair value hedging instruments, ASC 815-30-35-41A states that amounts related to the initial fair value of the hedging instrument that are recorded in OCI during the hedging relationship should be reclassified from AOCI to earnings on a systematic and rational basis over the periods during which the hedged forecasted transactions affect earnings. Acceptable approaches to accomplish this may vary depending on the nature of the hedging instrument and hedged item.

ASC 815-30-35-41B illustrates how this guidance would be applied to an option-based derivative. The following example illustrates an approach for a non-option derivative that we believe meets the requirement in ASC 815-30-35-41A.

Illustration 6-1: Example of non-option derivative with non-zero fair value

On 1 January 20X1, ABC Company entered into a receive-variable, pay-fixed interest rate swap to hedge its non-prepayable debt that has variable interest payments based on six-month Term SOFR.

On 1 January 20X2, XYZ Company acquired ABC Company, and, in order to apply hedge accounting prospectively, it re-documents the hedge as required. Effective 1 January 20X2, a new hedging relationship is established. However, the existing derivative is off-market in that it has a non-zero fair value as a result of the time period that has elapsed from 1 January 20X1 to 1 January 20X2.

¹⁸⁴ It is important to note that ASC 815 does not permit a derivative with a fair value other than zero to actually be accounted for as two separate elements, except in highly structured situations where the initial net investment or off-market amount dominates the entire instrument.

To qualify for hedge accounting, XYZ Company must assess whether the new hedging relationship is expected to be highly effective. To do so, XYZ Company creates a hypothetical derivative and runs a sensitivity analysis on the changes in the cash flows of the hypothetical derivative compared with those of the actual derivative, noting it is expected to be highly effective.

The table below summarizes key information about the actual and hypothetical derivative for bookkeeping purposes.

| Illustration 6-2: Key assumptions | | |
|--|---|--|
| | Actual off-market pay fixed swap | Hypothetical pay fixed swap |
| Effective date | 1 January 20X1 | 1 January 20X2 |
| Maturity date | 31 December 20X2 | 31 December 20X2 |
| Fixed rate | 0.9615% (semiannual) | 0.85169% (semiannual) ¹⁸⁵ |
| Notional amount | \$100,000,000 | \$100,000,000 |

The table below displays the fair value of the actual and hypothetical derivative through the first quarter and the quarterly cash flows.

| Illustration 6-3: Fair value progression for the first quarter | | |
|--|---|--------------------------|
| | Actual off-market swap¹⁸⁶ | Hypothetical swap |
| Fair value at 1 January 20X2 | \$ (109,423) | \$ 0 |
| Change in fair value from 1 January to 31 March excluding accrued interest ("clean" value) ¹⁸⁷ | <u>(51,902)</u> | <u>(79,086)</u> |
| Fair value at 31 March 20X2 (excludes accrued interest) | (161,325) | (79,086) |
| Interest accrual from 1 January to 31 March | <u>(38,250)</u> | <u>(10,798)</u> |
| Fair value at 31 March 20X2 (includes accrued interest) | \$ (199,575) | \$ (89,884) |
| Cumulative change in fair value (since date of redesignation) from 1 January to 31 March | \$ (90,152) | \$ (89,884) |

Because the floating legs of the actual and the hypothetical swaps match (i.e., both are based on six-month Term SOFR with same reset dates), the actual swap can be thought of as comprising the off-market element as of the hedge designation date, plus the "hypothetical derivative" (pay 0.85169% fixed). At 1 January 20X2, the actual derivative is in a liability position to XYZ Company with a fair value of (\$109,423), and the hypothetical derivative has a fair value of zero. The fair value of the actual derivative represents the off-market element, which can be thought of as an embedded loan payable as discussed above. No entries are required on the date of designation.

At 31 March 20X2, the actual derivative has a fair value of (\$199,575), and the hypothetical derivative has a fair value of (\$89,884), both of which include accrued interest. The appropriate dollar-offset ratio is computed in this scenario by comparing the change in the fair value of the actual derivative with that of the hypothetical derivative, including the effects of both accrued interest and interest payments during

¹⁸⁵ The fixed-rate on the hypothetical derivative is the market swap rate as of hedge inception for a swap whose terms match the critical terms of the forecasted transaction. This fixed rate results in the hypothetical derivative having a fair value of zero at hedge inception.

¹⁸⁶ For simplicity, the calculations of the fair value of the swap are not illustrated.

¹⁸⁷ The fair value of a derivative is the present value of all of the remaining cash flows. Some entities and derivative systems break out the accrued interest into a separate account. When accrued interest is backed out of the fair value of a derivative, the remaining amount is often referred to as the "clean" value of the derivative.

the quarter. Therefore, the numerator represents the change in fair value from 1 January to 31 March for the actual derivative (including accrued interest). The denominator represents the change in fair value from 1 January to 31 March for the hypothetical derivative (including accrued interest). It is important to note that there were no interest payments during this quarter, since interest payments are made semiannually.

The dollar-offset ratio is computed as follows:

$$\frac{\$51,902 + \$38,250}{\$79,086 + \$10,798} = \frac{\$90,152}{\$89,884} = 1.003$$

The dollar-offset ratio should *not* be calculated by merely taking the change in the fair value from 1 January to 31 March without taking into account accrued interest and any cash settlement payment. The following calculation incorrectly excludes the accrued interest on the derivative. The *incorrect* calculation of the dollar-offset ratio is as follows:

$$\frac{\$51,902}{\$79,086} = 0.656$$

During the first quarter, the change in the fair value of the actual derivative relative to that of the hypothetical derivative was 100.3%, which is within the acceptable dollar-offset range of 80% to 125%. While highly effective, the hedge is not perfectly effective due to the difference between the fixed rates of the actual derivative and the hypothetical derivative.

The entry to record the change in fair value of the actual derivative for the period from 1 January 20X2 to 31 March 20X2 is as follows:

| | | |
|----------------------------|-----------|--------------------------|
| Other comprehensive income | \$ 90,152 | |
| Derivative liability | | \$ 90,152 ¹⁸⁸ |

The entry to reclassify amounts in AOCI to net income (interest expense) is done on an accrual basis during the period as an offset (or supplement) to interest accrued on the hedged debt. Because the entire change in the fair value of the actual derivative was initially recorded in OCI (as shown in the above entry), XYZ Company's approach is to reclassify the accrued interest on the actual derivative from AOCI to interest expense each quarter as follows:

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 38,250 | |
| Other comprehensive income | | \$ 38,250 |

However, in addition to reclassifying the accrued interest on the actual swap, XYZ Company also amortizes the fair value of the hedging instrument at hedge inception into earnings in accordance with the guidance in ASC 815-30-35-41A as follows (note that XYZ Company has determined that amortizing the swap's fair value at hedge inception on a straight-line basis over the life of the hedged debt is systematic and rational):

| | | |
|----------------------------|--------------------------|-----------|
| Other comprehensive income | \$ 27,356 ¹⁸⁹ | |
| Interest expense | | \$ 27,356 |

¹⁸⁸ The fair value of the derivative is the present value of all remaining cash flows and includes accrued interest. An entity can either separately account for the accrued net payments on the swap or account for it together with the derivative. Irrespective of how an entity accounts for the accrued interest portion, in order to calculate changes in fair value of the derivative, accrued interest should be included when calculating changes in fair value.

¹⁸⁹ Represents the fair value of \$109,423 at hedge inception divided by four periods = \$27,356.

The table below displays the fair value of the actual and hypothetical derivative through the second quarter as well as the semiannual cash payments.

| Illustration 6-4: Fair value progression for the second quarter | | |
|---|-------------------------------|--------------------------|
| | Actual off-market swap | Hypothetical swap |
| Fair value at 31 March 20X2 (excluding accrued interest) | \$ (161,325) | \$ (79,086) |
| Change in fair value from 1 April to 30 June, excluding accrued interest ("clean" value) | <u>48,024</u> | <u>20,569</u> |
| Fair value at 30 June 20X2 (excludes accrued interest) | (113,301) | (58,517) |
| Interest accrual from 1 January to 31 March | (38,250) | (10,798) |
| Interest accrual from 1 April to 30 June | <u>(38,250)</u> | <u>(10,798)</u> |
| Interest accrual from 1 January to 30 June | (76,500) | (21,596) |
| Swap cash outflows (net) 30 June 20X2 | <u>76,500</u> | <u>21,596</u> |
| Fair value at 30 June 20X2 (includes accrued interest) ¹⁹⁰ | (113,301) | (58,517) |
| Cumulative change in fair value from 1 January to 30 June (must reverse settlements) ¹⁹¹ | (80,378) | (80,113) |

At 30 June 20X2, the actual derivative has a fair value of (\$113,301), and the hypothetical derivative has a fair value of (\$58,517). Given that there were net cash outflows for the interest rate swap at 30 June, the ending fair value is the same as the "clean" value, as there is no accrued interest. To compute the appropriate cumulative dollar-offset ratio in this scenario, one cannot simply look at the change in the fair value of the actual derivative compared with that of the hypothetical derivative as illustrated in the following *incorrect* calculation of the dollar-offset ratio:

$$\frac{\$3,878}{\$58,517} = 0.066$$

Instead, the interest payments made during the quarter must be reversed from the change in the fair value of both the actual and hypothetical derivatives.¹⁹² The appropriate dollar-offset ratio is computed as follows:

$$\frac{(\$113,301) - (\$109,423) - \$76,500}{(\$58,517) - \$0 - \$21,596} = \frac{(\$80,378)}{(\$80,113)} = 1.003$$

On 30 June 20X2, XYZ Company makes a semiannual payment on the swap of (\$76,500), which represents the net amount required to settle the current leg of the actual swap. This amount is determined based on the gross pay and receive amounts of \$480,750¹⁹³ and \$404,250,¹⁹⁴ respectively. The entries to record the net payment (\$76,500) on 30 June 20X2 and the change in the fair value of the derivative in OCI for the period from 1 April 20X2 to 30 June 20X2 are as follows:

| | | |
|----------------------------|-------------------------|-----------|
| Derivative liability | \$ 76,500 | |
| Cash | | \$ 76,500 |
| Derivative liability | \$ 9,774 ¹⁹⁵ | |
| Other comprehensive income | | \$ 9,774 |

¹⁹⁰ Given that the interest payment was made on 30 June, the "clean" value and the fair value (or "dirty" value) are the same on 30 June.

¹⁹¹ The cumulative change in fair values from 1 January to 30 June is calculated as follows: (1) for the actual derivative, (\$80,378) = (\$113,301) - (\$109,423) - \$76,500 and (2) for the hypothetical derivative, (\$80,113) = (\$58,517) - 0 - \$21,596.

¹⁹² If working with "clean" values of the actual and hypothetical derivatives, accrued interest must be put back with the "clean" value to get the fair values.

¹⁹³ The gross payment on the fixed leg is calculated using the pay-fixed rate of 0.9615% in the agreement as follows: (0.9615%*(180/360))*\$100,000,000 = (\$480,750).

¹⁹⁴ The gross receipt on the floating leg is calculated using the applicable reset rate of 0.8085% as follows: (0.8085%*(180/360))*\$100,000,000 = \$404,250.

¹⁹⁵ The change in the fair value of the derivative from 1 April 20X2 to 30 June 20X2 is calculated as follows: (\$113,301) - (\$199,575) - \$76,500 = \$9,774.

The entry to reclassify amounts in AOCI to net income (interest expense) is done on an accrual basis during the period as an offset (or supplement) to interest accrued on the hedged debt. As discussed above, the accrued interest on the actual swap is reclassified out of AOCI as follows:

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 38,250 | |
| Other comprehensive income | | \$ 38,250 |

Consistent with the prior period, XYZ Co. also records the following entry to record the amortization of the swap's fair value at hedge inception from AOCI to earnings on a straight-line basis:

| | | |
|----------------------------|-----------|-----------|
| Other comprehensive income | \$ 27,356 | |
| Interest expense | | \$ 27,356 |

For illustration purposes, we only presented the accounting for the first two quarters following the acquisition above. The table below shows the calculations from hedge inception to settlement:

| Illustration 6-5: Calculations from hedge inception to settlement | | | | | | | |
|---|---|--------------------------|---|--------------------------|---------------------------------------|---------------------------------|---------------------------------|
| Period ended | Fair value of actual derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (E) (Dr.)/Cr. adjustment to OCI | (Dr.)/Cr. reclass out of OCI | (Dr.)/Cr. ending OCI balance |
| | (A) Change during the period | (B) Cumulative change | (C) Change during the period | (D) Cumulative change | | | |
| 31 March 20X2 | \$ (90,152) | \$ (90,152) | \$ (89,884) | \$ (89,884) | \$ (90,152) | \$ 10,894 ¹⁹⁶ | \$ (79,258) |
| 30 June 20X2 | \$ 9,774 | \$ (80,378) | \$ 9,771 | \$ (80,113) | \$ 9,774 | \$ 10,894 ¹⁹⁶ | \$ (58,590) |
| 30 Sep 20X2 | \$ (145) | \$ (80,523) | \$ (74) | \$ (80,187) | \$ (145) | \$ 29,419 ¹⁹⁷ | \$ (29,315) |
| 31 Dec 20X2 | \$ (104) | \$ (80,627) | \$ (53) | \$ (80,240) | \$ (104) | \$ 29,419 ¹⁹⁷ | \$ 0 |

The difference between the cumulative change in the actual derivative from hedge inception of (\$80,627) and the cumulative change in the hypothetical derivative of (\$80,240) is \$387. This amount can be calculated at the inception of the hedge as the difference between the undiscounted and discounted value of the difference between the fixed leg payments of the actual swap and the fixed leg payments of the hypothetical swap. The calculation is illustrated in the table below.

| A | B | C | D | E | (D x A) x (E/360) | | | | | |
|-------------|--------------|--------------|-------------------|-------------------------|--|-------|--------------------------------|-----------------|------------------------------|--|
| Notional | Reset period | Payment date | Fixed-rate actual | Fixed-rate hypothetical | Difference between actual and hypothetical | Days | Settlement amount undiscounted | Discount factor | Settlement amount discounted | Difference between discounted and undiscounted |
| 100,000,000 | 1/1/X2 | 6/30/X2 | 0.9615% | 0.85169% | 0.10981% | 180 | \$ 54,905 | 0.998342 | \$ 54,814 | \$ 91 |
| 100,000,000 | 7/1/X2 | 12/31/X2 | 0.9615% | 0.85169% | 0.10981% | 180 | \$ 54,905 | 0.994608 | \$ 54,609 | \$ 296 |
| | | | | | | TOTAL | \$ 109,810 | | \$ 109,423 | \$ 387 |

¹⁹⁶ The amount reclassified out of OCI this period represents the accrued interest paid on the actual derivative net of the amortization of the swap's fair value at hedge inception (\$38,250 - \$27,356).

¹⁹⁷ The amount reclassified out of OCI this period represents the accrued interest paid on the actual derivative net of the amortization of the swap's fair value at hedge inception (\$56,775 - \$27,356).

Because the receive floating legs of the actual and hypothetical derivatives are identical, the fundamental difference between the actual and hypothetical derivative is the pay-fixed leg. Over the remaining life of the derivative, the actual swap cash outflows will consistently exceed the hypothetical derivative outflows (due to the higher fixed rate on the actual swap) resulting in the reduction over time of the off-market element in the actual swap at inception of the new hedging relationship.

The total cash outflows on the actual swap from 1 January 20X2 (the date of redesignation) to maturity was \$190,050 (made up of semiannual interest payment of \$76,500 and \$113,550, respectively). Conceptually, the total cash outflows on the actual swap can be viewed to represent (1) repayment of the embedded loan principal of \$109,423 (i.e., the fair value of the swap at the inception of the hedge), (2) “interest” of \$387 paid on the embedded loan principal (which is recorded in earnings by recognizing the actual swap settlements through earnings rather than the hypothetical swap settlements) and (3) net interest payments that would have been paid on an at-market swap entered into at hedge inception of \$80,240 (i.e., the cash outflow of the hypothetical derivative).

Note that in this example the new hedging relationship was entered into by the acquiring company, XYZ Company. The AOCI balance that had been built up by the acquiree, ABC Company, was previously eliminated under business combination accounting. Therefore, there was no amortization of an AOCI balance related to the previous hedging relationship for which to account. In other scenarios, however, there may be an AOCI balance to amortize if the former hedge and its associated AOCI balance originally related to cash flows that are now affecting earnings.

6.4 Cash flow hedges of financial and nonfinancial risk components

As discussed in chapter 4, an entity may designate the hedged risk in a cash flow hedge as the change in the cash flows relating to all changes in the purchase price or sales price of a nonfinancial asset, or all changes in the cash flows related to a financial asset or liability. However, an entity’s risk management objective is often to hedge only one component of the overall cash flow variability. For example, an entity may want to hedge the variability in cash flows associated with variable prime rate-based interest payments explicitly referenced in a debt arrangement, or the variability in cash flows associated with the Chicago Mercantile Exchange (CME) soybean meal futures index explicitly referenced in an agreement to purchase a set quantity of soybean meal.

This section discusses hedging strategies available to entities with a risk management objective to hedge financial and nonfinancial risk components other than foreign currency risk.

6.4.1 Financial items

For cash flow hedges of existing variable-rate financial instruments, an entity may designate the hedged risk as the variability in cash flows attributable to changes in any contractually specified interest rate. For example, an entity could hedge the variability in cash flows of variable-rate debt due to changes in the prime rate, as long as this rate is contractually specified in the instrument. This guidance also applies to cash flow hedges of the forecasted issuance or purchase of a variable-rate financial instrument as discussed in the next section.

6.4.1.1

Forecasted issuances or purchases of debt instruments**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Hedging – General***Recognition**Forecasted Issuances or Purchases of Debt Instruments***815-20-25-19A**

In accordance with paragraph 815-20-25-6, if an entity designates a cash flow hedge of interest rate risk attributable to the variability in cash flows of a forecasted issuance or purchase of a debt instrument, it shall specify the nature of the interest rate risk being hedged as follows:

- a. If an entity expects that it will issue or purchase a fixed-rate debt instrument, the entity shall designate the variability in cash flows attributable to changes in the benchmark interest rate as the hedged risk.
- b. If an entity expects that it will issue or purchase a variable-rate debt instrument, the entity shall designate the variability in cash flows attributable to changes in the contractually specified interest rate as the hedged risk.

815-20-25-19B

If an entity does not know at the inception of the hedging relationship whether the debt instrument that will be issued or purchased will be fixed rate or variable rate, the entity shall designate as the hedged risk the variability in cash flows attributable to changes in a rate that would qualify both as a benchmark interest rate if the instrument issued or purchased is fixed rate and as a contractually specified interest rate if the instrument issued or purchased is variable rate.

ASC 815 provides guidance on designating a hedge of interest rate risk associated with the forecasted issuance (or purchase) of a debt instrument if the entity does not know at the designation date whether the debt will have fixed or variable interest rate payments. In this case, the interest rate designated as the hedged risk must qualify both as a benchmark interest rate (in case the issuance or purchase is of a fixed-rate instrument) and as a contractually specified interest rate (in case the issuance or purchase is of a variable-rate instrument). Any benchmark rate specified in ASC 815-20-25-6A (e.g., the SOFR OIS rate) would meet this requirement, as long as this rate is contractually specified in the debt instrument if the entity ultimately issues (or purchases) a variable-rate instrument.

How we see it

Hedging the forecasted issuance of debt is one of the most common cash flow hedging strategies executed by companies, particularly in low interest rate environments. Companies planning to issue fixed-rate or variable-rate debt in the future will often seek to protect themselves from rising interest rates in the period before the debt is issued. The most common hedging instrument used to execute this strategy is a forward-starting pay-fixed, receive-variable interest rate swap, where the effective date of the underlying swap matches the expected debt issuance date, and the term of the underlying swap matches the term of the debt that is expected to be issued. As a result, the timing of the coupon payments on the underlying swap are expected to match the timing of the interest payments on the debt to be issued. In addition, the index on the underlying swap will generally match the benchmark interest rate being hedged when the entity expects to issue fixed-rate debt or the contractually specified interest rate if variable-rate debt is expected to be issued. As a result, the hedging relationship will often be perfectly effective, at least initially, although the relationship will not remain perfectly effective if the timing of the forecasted debt issuance changes.

Entities can also use a Treasury rate lock agreement (T-lock) as the hedging instrument when hedging the forecasted issuance of fixed-rate debt. These instruments allow an entity to lock in the forward yield on a specific or projected US Treasury security before a planned issuance of debt. However, unlike a forward-starting swap, when an entity uses a T-lock as the hedging instrument, the hedging relationship will generally not be perfectly effective, even at hedge inception, because the maturity of the Treasury security referenced by the T-lock will typically be shorter than the maturity of the debt expected to be issued.

For example, if an entity is hedging the variability in interest coupons related to a 10-year fixed-rate debt instrument expected to be issued in two months, it would typically execute a T-lock that references the most recently issued (i.e., on-the-run) 10-year Treasury security. Since this security was already issued, it will have less than 10 years to maturity, while the debt will mature 10 years after issuance. Additionally, the timing of the interest payments relating to the underlying Treasury security in a T-lock will typically not exactly match the timing of the expected interest payments on the debt to be issued. Other complexities may exist if multiple Treasury auctions for the referenced security are scheduled before the expected debt issuance date.

6.4.2

Nonfinancial items

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Hedged Transaction Criteria Applicable to Cash Flow Hedges Only

815-20-25-15

A forecasted transaction is eligible for designation as a hedged transaction in a cash flow hedge if all of the following additional criteria are met:

- i. If the hedged transaction is the forecasted purchase or sale of a nonfinancial asset, the designated risk being hedged is any of the following:
 3. The risk of variability in cash flows attributable to changes in a **contractually specified component**. (See additional criteria in paragraphs 815-20-25-22A through 25-22B for designating the variability in cash flows attributable to changes in a contractually specified component as the hedged risk.)

815-20-25-22A

For existing contracts, determining whether the variability in cash flows attributable to changes in a **contractually specified component** may be designated as the hedged risk in a cash flow hedge is based on the following:

- a. If the contract to purchase or sell a nonfinancial asset is a derivative in its entirety and an entity applies the normal purchases and normal sales scope exception in accordance with Subtopic 815-10, any contractually specified component in the contract is eligible to be designated as the hedged risk. If the entity does not apply the normal purchases and normal sales scope exception, no pricing component is eligible to be designated as the hedged risk.
- b. If the contract to purchase or sell a nonfinancial asset is not a derivative in its entirety, any contractually specified component remaining in the host contract (that is, the contract to purchase or sell a nonfinancial asset after any embedded derivatives have been bifurcated in accordance with Subtopic 815-15) is eligible to be designated as the hedged risk.

815-20-25-22B

An entity may designate the variability in cash flows attributable to changes in a contractually specified component in accordance with paragraph 815-20-25-15(i)(3) to purchase or sell a nonfinancial asset for a period longer than the contractual term or for a not-yet-existing contract to purchase or sell a nonfinancial asset if the entity expects that the requirements in paragraph 815-20-25-22A will be met when the contract is executed. Once the contract is executed, the entity shall apply the guidance in paragraph 815-20-25-22A to determine whether the variability in cash flows attributable to changes in the contractually specified component can continue to be designated as the hedged risk. See paragraphs 815-20-55-26A through 55-26E for related implementation guidance.

An entity may designate the hedged risk in a cash flow hedge of a forecasted purchase or sale of a nonfinancial asset as the variability in cash flows due to changes in a contractually specified component. ASC 815 defines a contractually specified component as an index or price explicitly referenced in an agreement to purchase or sell a nonfinancial asset other than an index or price calculated or measured solely by reference to an entity's own operations. An example would be the NYMEX price of natural gas at the Henry Hub in Louisiana specified in a contract for the sale of natural gas at another location based on the NYMEX price, plus or minus a basis differential.

6.4.2.1 Hedging a contractually specified component in an existing contract

A contractually specified component in an existing contract must meet the following criteria to be designated as the hedged risk:

- ▶ If the contract specifying the component meets the definition of a derivative in its entirety, the entity must apply the NPNS scope exception to this contract. (That is, if the entity does not or cannot apply the NPNS scope exception, no pricing component is eligible to be designated as the hedged risk.)
- ▶ If the contract specifying the component is not a derivative in its entirety, the entity must bifurcate (if necessary) any embedded derivatives in accordance with ASC 815-15, and any contractually specified component remaining in the host contract is eligible to be designated.

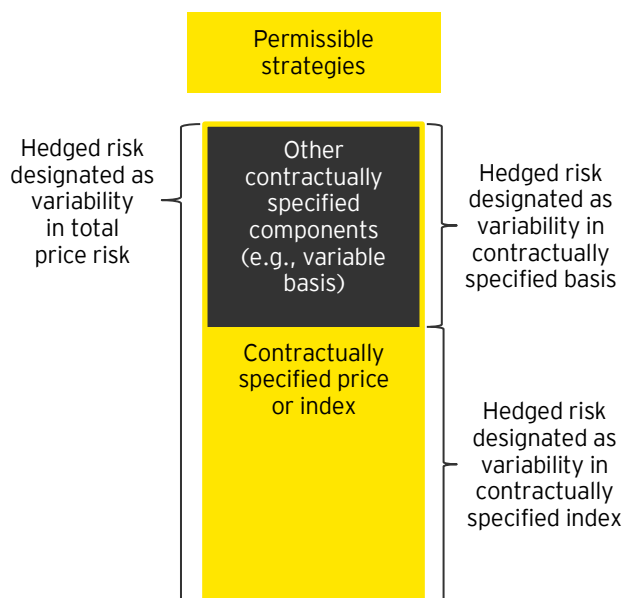
How we see it

For contracts that qualify for the NPNS scope exception, entities need to document their election of this exception if they want to hedge a contractually specified component. This is the case even for nonfinancial derivative contracts that have a fair value close to zero because the terms of a contract are variable so that purchases or sales under the contract would be executed at market prices. Absent the election of the NPNS scope exception, these contracts would not qualify for component hedging under the guidance.

Before the adoption of ASU 2017-12, entities were precluded from hedging risk components (except for foreign exchange risk) related to the forecasted purchase or sale of a nonfinancial asset such as a commodity. That is, if an entity wanted to hedge the price risk related to the forecasted purchase or sale of a commodity, it was required to designate changes in the total price of the commodity as the hedged risk. Because many entities employ hedging strategies that focus on a particular component of the total price risk, the requirement that the hedged risk be designated as the variability in total price resulted in the recognition of ineffectiveness or, in some cases, the failure to qualify for hedge accounting.

Illustration 6-6: Hedging contractually specified risk components

Upon adopting ASU 2017-12, entities are able to hedge nonfinancial, contractually specified risk components, as illustrated in the diagram below.



While recognizing the advantages of allowing entities to hedge nonfinancial risk components, the Board expressed its concerns in paragraph BC51 of the Basis for Conclusions of ASU 2017-12 that an entity could (1) inappropriately elect hedge accounting by fabricating a contractually specified component to which it does not have price exposure and then enter into a derivative to hedge that component or (2) specify a component in a contract that it may not have price exposure to if other terms of the contract are written in a way that the exposure to the component is mitigated or eliminated. The Board believed that the two criteria discussed above, which are based on concepts that already existed in ASC 815, will alleviate these concerns.

For example, the guidance in ASC 815-10-15-32 prohibits an entity from applying the NPNS scope exception to a contract in which the underlying is extraneous to the nonfinancial asset being sold or purchased or where the magnitude and direction of any price adjustments in the contract are not consistent with the relevancy of the underlying. The Board concluded that these criteria, coupled with the requirements to bifurcate any embedded derivatives in non-derivative contracts, will prevent potential abuse by entities seeking to designate extraneous or irrelevant pricing features as the contractually specified hedged risk.

How we see it

While we agree that the guidance in ASC 815-10-15-32 could address the Board's concern about abuse, we believe the FASB's decision to require an entity to meet all of the NPNS criteria to designate a contractually specified component as the hedged risk may result in certain contracts not qualifying for component hedging even though such an approach would be consistent with the entity's risk management approach.

This is because a derivative contract may not qualify for the NPNS scope exception for reasons other than having extraneous or economically disproportionate pricing features, as discussed in ASC 815-10-15-32. For example, a derivative contract may not qualify for the scope exception because the quantities provided under the contract exceed the entity's need for the asset or because it does not satisfy the strict gross physical delivery requirements. In these situations, the guidance in ASC 815-20-25-22A indicates that an entity would be precluded from designating a contractually specified component as the hedged risk because the NPNS scope exception was not applied to the contract.

The Board's decision to require the application of the NPNS scope exception to hedge a contractually specified component seems to be based on the notion that a derivative instrument cannot be designated as the hedged item in a cash flow hedge. However, we believe that some constituents may find this to be confusing or even counterintuitive, given that the guidance in ASC 815 that addresses situations in which a forecasted transaction stemming from a contract that meets the definition of a derivative can be designated as the hedged item.

ASC 815-20-25-22 allows a fixed-priced/gross settled contract for the purchase or sale of a commodity (where the contract meets the definition of a derivative but does not qualify for the NPNS scope exception), to be designated as an all-in-one cash flow hedge of "the variability of the consideration to be paid or received in a forecasted transaction that will occur upon gross settlement of the derivative instrument itself."

Similarly, the guidance in ASC 815-20-55-46 and 55-47 allows an entity to designate a mixed-attribute derivative contract (i.e., the basis is fixed but the underlying commodity price is variable) that does not qualify for the NPNS scope exception, along with another derivative whose underlying is the base commodity price, as the hedging instruments in a cash flow hedge of the overall variability in cash flows from the anticipated purchase or sale of the commodity that stems from the mixed-attribute derivative contract itself.

The following illustration, which is based on an example in ASC 815-30-55-134 through 55-141, shows how a contractually specified risk component in an existing contract can be defined and assessed for hedge effectiveness.

Illustration 6-7: Cash flow hedge of a contractually specified component in a forecasted purchase of a nonfinancial asset

Entity J manufactures keys for door locks. It purchases key plates, which are used to manufacture the keys, from Supplier A through an outstanding supply agreement. This agreement specifies that the per-unit cost of each key plate will be determined on the first business day of each month based on the spot price of COMEX copper, the spot price of COMEX zinc, the current cost of refining copper and zinc into key plates and the current cost of transporting the key plates to Entity J. Assume all other criteria for designating a contractually specified component have been met.

On 1 January 20X1, Entity J determines that it expects to purchase 100,000 key plates in July 20X1 under the supply agreement. These 100,000 key plates will require 10,000 pounds of copper to manufacture, and Entity J would like to hedge the variability in the cost of the key plates attributable only to the change in the price of COMEX copper.

To do this, on 1 January 20X1, Entity J enters into a forward contract maturing on 1 July 20X1 (i.e., the date on which the price of copper used to manufacture the key plates is fixed) to purchase 10,000 pounds of COMEX copper at a fixed price. The forward contract is designated as the hedging instrument in a cash flow hedge of the variability in the purchase price attributable to changes in the COMEX copper price index (a contractually specified component in the supply agreement) related to the forecasted purchase of key plates in July 20X1. Entity J documents in its hedge documentation that the requirements to designate variability in cash flows attributable to changes in a contractually specified component as the hedged risk in paragraph ASC 815-20-25-22A are met.

Entity J's assessment of hedge effectiveness considers the extent of offset between the changes in the expected cash flows on the forward contract and the variability in the purchase price attributable to changes in the COMEX copper price index (i.e., the contractually specified hedged risk).

How we see it

When a risk component is not contractually specified, the entity will be required to designate the total price risk as the hedged risk related to the forecasted purchase or sale of nonfinancial assets. For example, many airlines hedge forecasted purchases of jet fuel with crude oil derivatives. Because purchase contracts for jet fuel generally do not specify the crude oil price as a component of the total price, an airline would not be permitted to designate only changes in the crude oil price as the hedged risk, even though the price of crude oil and the price of jet fuel may be highly correlated. Instead, the airline would be required to continue to designate the hedged risk as the total purchase price of the jet fuel.

If the hedging relationship is highly effective, the effect of a cash flow hedge on the entity's financial statements may be virtually identical, regardless of whether the designated risk is the total price risk or a component of the total price risk. This is because the entire change in fair value of the derivative included in the assessment of a highly effective cash flow hedge will be deferred in OCI and recognized in the income statement line affected by the hedged item only when that hedged item affects earnings. However, the requirement to hedge total price risk increases the likelihood of losing hedge accounting (e.g., if the hedge is no longer highly effective due to volatility in the basis) and could require additional effort to assess hedge effectiveness.

6.4.2.1.1 Hedging an exposure that is managed centrally

ASC 815 provides the following example of an entity hedging an exposure in the form of a contractually specified component that is managed centrally.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Implementation Guidance and Illustrations

Example 23: Designation of a Cash Flow Hedge of a Forecasted Purchase of Inventory for Which Commodity Exposure Is Managed Centrally

815-30-55-142

This Example illustrates the application of the guidance in Subtopic 815-20 and this Subtopic to the designation of a **cash flow hedge** of a forecasted purchase of inventory in which the commodity exposure is managed centrally at the aggregate level. Assume the entity elects to perform subsequent assessments of hedge effectiveness on a qualitative basis and all hedge documentation requirements were satisfied at inception.

815-30-55-143

Entity Q is seeking to hedge the variability in cash flows associated with commodity price risk of its monthly plastic purchases for the next 12 months. It has two different manufacturing plant locations (Plant A and Plant B) that are purchasing five different grades of plastic from Supplier A. The plastic purchase price for each month is based on the month-end Joint Plastic (JP) index and a fixed basis differential component. The fixed basis differential offered by the supplier is determined by:

- a. The grade of the plastic purchased
- b. The distance between the plant location and supplier location.

815-30-55-144

At January 1, 20X1, Entity Q enters into a supply agreement with Supplier A to purchase plastic over the next 12 months. The respective agreements allow Entity Q to purchase the various grades of plastic at both of its plant locations as the need arises over the following year. The following table summarizes the pricing provisions contained in the supply agreement for each grade of plastic.

| | <u>Grade 1</u> | <u>Grade 2</u> | <u>Grade 3</u> | <u>Grade 4</u> | <u>Grade 5</u> |
|---------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Plant A | JP + \$0.14 | JP + \$0.11 | JP + \$0.09 | JP + \$0.05 | JP – \$0.02 |
| Plant B | JP + \$0.16 | JP + \$0.12 | JP + \$0.07 | JP + \$0.06 | JP – \$0.03 |

815-30-55-145

Entity Q's risk management objective is to hedge the variability in the purchase price of plastic attributable to changes in the JP index of the first 80,000 pounds of plastic purchased in each month regardless of grade or plant location delivered to. To accomplish this objective, Entity Q executes 12 separate forward contracts at January 1, 20X1, to purchase plastic as follows.

| | <u>Settlement Date</u> | <u>Notional Amount</u> | <u>Underlying Index</u> |
|---------------|-------------------------------|-------------------------------|--------------------------------|
| Jan forward | January 30, 20X1 | 80,000 (lbs) | JP |
| Feb forward | February 28, 20X1 | 80,000 (lbs) | JP |
| Mar forward | March 30, 20X1 | 80,000 (lbs) | JP |
| April forward | April 30, 20X1 | 80,000 (lbs) | JP |
| May forward | May 30, 20X1 | 80,000 (lbs) | JP |
| June forward | June 30, 20X1 | 80,000 (lbs) | JP |
| July forward | July 30, 20X1 | 80,000 (lbs) | JP |
| Aug forward | August 30, 20X1 | 80,000 (lbs) | JP |
| Sep forward | September 30, 20X1 | 80,000 (lbs) | JP |
| Oct forward | October 30, 20X1 | 80,000 (lbs) | JP |
| Nov forward | November 30, 20X1 | 80,000 (lbs) | JP |
| Dec forward | December 30, 20X1 | 80,000 (lbs) | JP |

815-30-55-146

Entity Q determines that the variable JP index referenced in the supply agreement constitutes a contractually specified component and that the requirements to designate variability in the cash flows attributable to changes in a contractually specified component as the hedged risk in paragraph 815-20-25-22A are met.

815-30-55-147

Because Entity Q determined that it will purchase at least 80,000 pounds of plastic each month in the coming 12 months to fulfill its expected manufacturing requirements, it documents that the hedged item (that is, the **forecasted transaction** within each month) is probable of occurring. Entity Q designates each forward contract as a cash flow hedge of the variability in cash flows attributable to changes in the contractually specified JP index on the first 80,000 pounds of plastic purchased (regardless of grade or plant location delivered to) for the appropriate month. The individual purchases of differing grades of plastic by Plant A and Plant B during each month share the risk exposure to the variability in the purchase price of the plastic attributable to changes in the contractually specified JP index. Therefore, the individual transactions in the hedged portfolio of plastic purchases for each month share the same risk exposure for which they are designated as being hedged in accordance with paragraph 815-20-25-15(a)(2).

815-30-55-148

In accordance with paragraph 815-20-25-3(b)(2)(iv)(01)(B), if Entity Q has determined the critical terms of the hedged item and hedging instrument match, it may elect to assess effectiveness qualitatively both at inception of the hedging relationship and on an ongoing basis on the basis of the following factors in accordance with paragraphs 815-20-25-84 through 25-85:

- a. The hedging instrument's underlying matches the index upon which plastic purchases will be determined (that is, the JP Index).
- b. The notional of the hedging instrument matches the forecasted quantity designated as the hedged item.
- c. The date on which the derivatives mature matches the timing in which the forecasted purchases are expected to be made. That is, the quantity of the hedged item, 80,000 pounds, is an aggregate amount expected to be purchased over the course of the respective month (that is, the same 31-day period) in which the derivative matures.
- d. Each hedging instrument was traded with at-market terms (that is, it has an initial fair value of zero).
- e. Assessment of effectiveness will be performed on the basis of the total change in the fair value of the hedging instrument.
- f. Although the amount of plastic being hedged each period is a cumulative amount across multiple grades of plastic, the basis differentials between grades of plastic and location are not required to be included in assessments of effectiveness because Entity Q has designated the variability in cash flows attributable to changes in the JP index (the contractually specified component) as the hedged risk within its purchases of plastics.

The FASB's example illustrates the ability to isolate a contractually specified component in a cash flow hedging relationship of a nonfinancial risk thereby ignoring all other variables that could affect the total purchase price, such as location. Isolating the change in a contractually specified component as the hedged risk, combined with the "first-payments-received" technique discussed in section 6.2.2.1 and ability to ignore timing differences between the hedged items and hedging instrument as long as they settle within the same 31-day period as described in ASC 815-20-25-84A, enables the entity to design a perfectly effective hedging strategy that can be qualitatively assessed for effectiveness.

However, as noted in the example, the conditions in 815-20-25-22A and 815-20-25-15(a)(2) are required to be met when hedging a contractually specified component associated with groups of nonfinancial items. In addition, in circumstances when a contract does not yet exist but is expected to be executed, the hedging relationship illustrated above would still be permitted if the conditions of ASC 815-20-25-22B are also met. That is, once the contract is executed, the entity applies the guidance in paragraph ASC 815-20-25-22A.

6.4.2.2 Hedging a contractually specified component in a not-yet existing contract (updated September 2023)

Assuming all the requirements for cash flow hedge accounting are met, an entity is also permitted to designate the variability in cash flows attributable to changes in a contractually specified component as the hedged risk in the forecasted purchase or sale of a nonfinancial asset for a period longer than the contractual term of the agreement or for a not-yet-existing contract to purchase or sell a nonfinancial asset. For contracts that do not exist at the time of hedge designation, the Board notes in paragraph BC55 of the Basis for Conclusions of ASU 2017-12 that the requirement to apply the NPNS scope exception to a derivative contract or to bifurcate an embedded derivative from a non-derivative contract, as discussed in section 6.4.2.1, would not be completed at hedge inception. Instead, an entity must expect that the above requirements will be met when the contract is executed, and once the contract is executed, the entity would complete a more rigorous analysis to make sure these requirements have been met.

The following example, which is based on an example in the ASC 815-20-55-26B through 55-26E, illustrates the designation of a contractually specified component in a contract that doesn't exist yet.

Illustration 6-8: Hedge of a contractually specified component in a contract that doesn't exist yet

Entity A's objective is to hedge the variability in cash flows attributable to changes in a contractually specified component in forecasted purchases of a specified quantity of soybeans on various dates during June 20X1.

Entity A has executed contracts to purchase soybeans only through the end of March 20X1. Entity A's contracts to purchase soybeans typically are based on the ABC soybean index price, plus a variable basis differential representing transportation costs. Entity A expects that the forecasted purchases during June 20X1 will be based on the ABC soybean index price, plus a variable basis differential.

On 1 January 20X1, Entity A enters into a forward contract indexed to the ABC soybean index that matures on 30 June 20X1 and designates it as the hedging instrument in a cash flow hedge where the hedged item is documented as the forecasted purchase of a specified quantity of soybeans during June 20X1. Because Entity A expects that the ABC soybean index will be specified in the contract once it is executed, Entity A documents the variability in cash flows attributable to changes in the contractually specified ABC soybean index as the hedged risk. On 1 January 20X1, Entity A determines that all requirements for cash flow hedge accounting are met and that the requirements in ASC 815-20-25-22A for hedging a contractually specified nonfinancial component will be met once the contract is executed. In addition, Entity A will reassess whether the criteria in ASC 815-20-25-22A are met when the contract is executed.

On 31 March 20X1, Entity A determines as part of its normal quarterly assessment process that the forecasted purchase of soybeans in June 20X1 remains probable of occurring, but the price of the soybeans will be based on the XYZ soybean index instead of the ABC soybean index because the contract is now expected to reference the XYZ soybean index. Although the hedged risk has changed to the variability in cash flows attributable to changes in the XYZ soybean index from the variability in cash flows attributable to changes in the ABC soybean index, Entity A is not required to automatically discontinue hedge accounting. Instead, it would begin to assess the effectiveness of the hedging relationship based on the revised risk. If the hedging instrument (indexed to the ABC soybean index) remains highly effective at achieving offsetting cash flows attributable to the revised contractually specified component (the XYZ soybean index), Entity A may continue to apply hedge accounting.

Alternatively, if the hedging instrument is not highly effective at achieving offsetting cash flows attributable to the revised hedged risk, Entity A would discontinue the hedging relationship. However, as long as it is still probable that the hedged forecasted transaction (i.e., purchases of the specified quantity of soybeans) will occur, the net gain or loss on the hedging instrument in AOCI would not be reclassified into earnings until the hedged forecasted transaction affects earnings in accordance with ASC 815-30-35-38 through 35-41. These reclassified amounts would be presented in the same income statement line item as the earnings effect of the hedged item.

Immediate reclassification would be required only if it becomes probable that the hedged forecasted transaction will not occur. As discussed in ASC 815-30-40-5, if an entity has a pattern of determining that the hedged forecasted transactions are probable of not occurring, this would call into question both the entity's ability to accurately predict forecasted transactions and the propriety of applying cash flow hedge accounting for similar forecasted transactions in the future.

How we see it

Because the guidance on hedging components of nonfinancial risks generally contemplates that a contract explicitly referencing the component to be hedged will exist before the forecasted transaction occurs and be variable in nature, questions have arisen about an entity's ability to hedge components when the forecasted purchase or sale of a nonfinancial asset occurs in the spot market (where a contract may not exist prior to the purchase or sale).

ASC 815-20-55-26A states that the definition of a contractually specified component may be considered to be met if the component is explicitly referenced in agreements that support the price at which the nonfinancial asset will be purchased or sold. The guidance illustrates this point in an example of a spot market purchase of a commodity whose price is based on a predefined formula referenced in the governing agreements of the transaction or the exchange on which the transaction takes place.

However, some constituents have questioned whether such agreements need to be legally binding and in place before the purchase or sale transaction occurs. Others have questioned whether a contractually specified component can be designated as the hedged risk in a contract whose total price is fixed, even if the contract specifies how the fixed price was determined.

At the 28 March 2018 Board meeting, the FASB staff stated that the operability of the contractually specified component model for spot market purchases and sales could differ by commodity type, because a contractually specified component may be explicitly referenced in spot market transactions for certain commodities, but not others.

In addition, during this meeting, the FASB staff provided its interpretation of certain aspects of the guidance for hedging the variability of a contractually specified component in the forecasted purchase or sale of a nonfinancial asset. The staff's observations included the following:

- ▶ If an entity does not have a contract at hedge inception, it must develop an expectation (for example, through previous experience) that when the transaction is entered into (1) the written agreement for the forecasted purchase or sale will contain an explicitly referenced contractually specified component, (2) the pricing formula that references the explicitly referenced contractually specified component will determine the price of the nonfinancial item, (3) the requirements for cash flow hedge accounting will be met and (4) the agreement will be substantive.
- ▶ The guidance in ASC 815-20-25-22A through 25-22B regarding when an entity is able to designate the variability in a contractually specified component as the hedged risk would apply even when the contractually specified component is explicitly referenced in a document other than the contract (e.g., in supporting agreements to a contract or purchases or sales receipts in spot purchase).

The Board agreed with the staff's interpretation of the guidance.

Notwithstanding the interpretation provided by the FASB in 2018 staff, questions about how to apply the guidance on hedging contractually specified components for nonfinancial risks remain. As a result, as part of its existing project on hedge accounting improvements, the FASB is considering potential improvements to clarify the Board's intent with respect to this guidance, including the nature of agreements in which a contractually specified component may be evidenced and the applicability of the NPNS exception. Interested parties should monitor developments in this area.

6.4.3 Changes to the hedged risk (updated September 2023)

The general guidance in ASC 815-20-55-56 has been amended to indicate that changing the hedged risk in a cash flow hedge of a forecasted transaction does not constitute a change in a critical term that requires dedesignation of the original hedging relationship. This applies to both nonfinancial and financial risks.

A unique attribute of a cash flow hedge of a forecasted transaction is that an entity's expectation about the terms of the transaction as established at hedge inception may change during the forecast period, but the forecasted transaction may still be probable of occurring and the hedging relationship may remain highly effective based on the revised terms. As noted in paragraph BC65 of the Basis for Conclusions of ASU 2017-12, the Board believes that in these situations, requiring an entity to dedesignate the original hedging relationship and redesignate a new hedging relationship would be inconsistent with the entity's risk management objectives.

Although the Board's rationale for allowing an entity to change the hedged risk without automatically dedesignating the hedging relationship is well-articulated in the Basis for Conclusions, a number of questions about how to apply this guidance remain. In order to address the existing uncertainty in this area, the FASB is considering potential improvements to clarify the application of the change in hedged risk guidance as part of its existing project on hedge accounting improvements. Interested parties should monitor developments in this area.

6.5 Assessing hedge effectiveness (updated September 2023)

To qualify for hedge accounting under ASC 815, a hedging relationship must be expected to be highly effective at inception and on an ongoing basis throughout its term. As discussed in section 4.2.3, ASC 815 requires that an entity document an assessment of hedge effectiveness at the inception of the hedging relationship and perform an initial quantitative assessment within the required time period and on an ongoing basis throughout the term of the hedging relationship, unless the hedging relationship qualifies for one of the qualitative assessment methods described in ASC 815-20-25-3(b)(2)(iv)01. This ongoing assessment of hedge effectiveness must be prepared whenever financial statements are reported and at least every three months.

Hedges of cash flow exposures often involve a component of the total cash flow that is the source of its variability. Considering the source of variability in a hedged cash flow is one of the first steps in assessing effectiveness of a cash flow hedge. For example, if the hedged forecasted transaction is the variable interest payments on a debt obligation whose contractual terms provide for the payment of interest at the prime interest rate plus a fixed spread, changes in the prime interest rate are the only source of variability of the forecasted cash flow.

When the variability of the hedged cash flow is solely attributable to changes in an interest rate index, effectiveness may be assessed solely by considering the effectiveness of the derivative in offsetting changes resulting from changes in the index. As a result, when the designated derivative is based on the same interest rate index as the cause of the variability of the hedged cash flow, and the other terms of the exposure and the derivative match, the relationship will be perfectly effective, even though the shortcut method may not be available. This concept is illustrated in Example 1 below.

In some situations, the effectiveness of a hedging relationship will be apparent even though the criteria for applying the shortcut method (discussed in chapter 4) are not met. The remainder of this section will discuss the methods that an entity may use to assess the effectiveness of cash flow hedging relationships.



Reference rate reform considerations

ASC 848 provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: This guidance allows entities to elect to apply optional expedients that provide relief from various hedge effectiveness requirements for both new and existing cash flow hedges affected by reference rate reform, if certain criteria are met. This relief simplifies the assessment of hedge effectiveness for cash flow hedging relationships affected by reference rate reform by allowing an entity to disregard certain differences between the hedged forecasted transaction and the hedging instrument.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [A closer look at the FASB accounting relief related to reference rate reform.](#)

6.5.1

The 'critical terms match' approach to assess hedge effectiveness

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Subsequent Measurement

Assessing Effectiveness Based on Whether the Critical Terms of the Hedging Instrument and Hedged Item Match

815-20-35-9

If, at inception, the critical terms of the hedging instrument and the hedged forecasted transaction are the same (see paragraphs 815-20-25-84 through 25-84A), the entity can conclude that changes in cash flows attributable to the risk being hedged are expected to be completely offset by the hedging derivative.

Therefore, subsequent assessments can be performed by verifying and documenting whether the critical terms of the hedging instrument and the forecasted transaction have changed during the period in review.

815-20-35-10

Because the assessment of hedge effectiveness in a cash flow hedge involves assessing the likelihood of the counterparty's compliance with the contractual terms of the derivative instrument designated as the hedging instrument, the entity must also assess whether there have been adverse developments regarding the risk of counterparty default, particularly if the entity planned to obtain its cash flows by liquidating the derivative instrument at its fair value.

815-20-35-11

If there are no such changes in the critical terms or adverse developments regarding counterparty default, the entity may conclude that the hedging relationship is perfectly effective. In that case, the change in fair value of the derivative instrument can be viewed as a proxy for the present value of the change in cash flows attributable to the risk being hedged.

815-20-35-12

However, the entity must assess whether the hedging relationship is expected to continue to be highly effective using a quantitative assessment method (either a dollar-offset test or a statistical method such as regression analysis) if any of the following conditions exist:

- a. The critical terms of the hedging instrument or the hedged forecasted transaction have changed.
- b. There have been adverse developments regarding the risk of counterparty default.

Even when the critical terms of the hedging instrument and the hedged forecasted transaction are the same, ASC 815 requires the entity to perform and document an assessment of hedge effectiveness at the inception of the hedging relationship and on an ongoing basis throughout the term of the hedging relationship. The ongoing assessment of hedge effectiveness must be prepared whenever financial statements are reported, and at least every three months. However, since the critical terms of the hedging instrument and the hedged forecasted transaction are the same at inception, the entity can conclude that changes in cash flows attributable to the risk being hedged are expected to be completely offset by the hedging derivative.

Therefore, subsequent assessments can be performed by verifying and documenting whether the critical terms of the hedging instrument and the forecasted transaction have changed during the period, rather than by quantifying the relevant changes in cash flows (see section 4.8.3.1 for additional discussion of the critical terms match approach). An entity is only required to quantify the relevant changes in cash flows when the critical terms of the forecasted transaction have changed.

ASC 815-20-35-14 through 35-18 notes that when applying this practical approach, an entity should keep in mind that the likelihood of the counterparty complying with the contractual terms of the derivative designated as the hedging instrument is an important underlying assumption for establishing the effectiveness of the hedging relationship (it also notes this should at least be considered in applying the shortcut method as well). Therefore, if an entity assesses effectiveness merely by validating that the terms of a cash flow exposure and the related derivative continue to be the same, it must also assess whether there have been adverse developments related to the risk of counterparty default. Refer to section 4.9 for a discussion of credit risk in derivative contracts, and its effect on both the fair value of the derivative (for balance sheet measurement) and hedge effectiveness calculations.

Under the critical terms match approach, an entity may conclude that a hedging relationship is perfectly effective when both conditions are satisfied (i.e., the terms of the items remain the same and there are no adverse developments with respect to the counterparty's creditworthiness). This concept is illustrated in Example 1 below. When properly documented and used, this approach merely acknowledges the mathematical fact that such a hedge is perfectly effective.

The initial assessment of hedge effectiveness requires the entity to verify that the critical terms of the hedged cash flow and the hedging instrument match exactly. As described later in this section, a similar approach is available for hedges using purchased options (refer to section 6.6) and certain hedges involving interest rate risk and non-option hedging instruments (refer to section 6.5.2).

6.5.1.1 Application of the critical terms match approach to a group of hedged items

As discussed in section 4.8.3.1, the application of the critical terms match approach generally requires an exact match of the critical terms. However, to ease the application of this approach when hedging a group of forecasted transactions, the FASB provides an exception to this strict requirement.

In accordance with the guidance in ASC 815-20-25-84A, an entity may apply the critical terms match method to a group of forecasted transactions if the forecasted transactions occur within the same 31-day or fiscal month period as the maturity of the hedging derivative, assuming all the other critical terms are identical.

How we see it

ASC 815-20-25-84A is written in the context of hedging a group of forecasted transactions. We generally do not believe this guidance provides additional flexibility (i.e., a 31-day “window”) for individual forecasted transactions to qualify for use of the critical terms match method or to continue using this method if the timing of the hedged item changes so it no longer exactly matches the terms of the hedging instrument.

For example, an entity that initially assesses the effectiveness of a cash flow hedge of a single forecasted transaction using the critical terms match method (because its best estimate of the timing matches the terms of the hedging instrument) is still required to perform subsequent quantitative assessments of hedge effectiveness if the expected timing of the forecasted transaction changes (even if the expected change in timing is less than 31 days).

6.5.1.2

Pitfalls from using the critical terms match approach to assess hedge effectiveness

Entities have asserted that their hedges were perfectly effective when in fact they no longer were (or sometimes never were). Entities should evaluate when a hedge is perfectly effective by carefully monitoring when the critical terms of the derivative and of the forecasted hedged transaction might no longer match.

Critical terms include timing, quantities, grade, locations¹⁹⁸ and delivery dates. The potential for a mismatch is inherent in the pairing of a derivative (the terms for which are static) and a transaction that is merely *forecasted*. Forecasts, by their very nature, may change. For example, the timing and/or amounts of the forecasted transaction may change. In addition, inherent in the assessment of hedge effectiveness is the ongoing determination that the hedged forecasted transaction is still probable of occurring. The creditworthiness of the derivative counterparty should also be factored in the assessment.

Occasionally, forecasted cash flows may be controlled by contractual arrangements (e.g., a commodity purchase scheduled for a particular future date) and may be more certain of occurring at a precise time and in a particular amount. Other forecasted cash flows may be based on budgets and estimates derived from historical trends, such as sales of a particular product in a particular region. Such forecasts would be far more likely to change. An entity may select and customize a derivative instrument that is set up to exactly match its initial expectations about the timing and amounts of future cash flows and, therefore, will be deemed to be perfectly effective initially. But later, if expectations about cash flows change as the transaction date approaches and projections can be made with more precision, the relationship would no longer be perfectly effective since the derivative’s cash flows remain preset.

Therefore, the entity should include in its hedge documentation the method that will be used to assess hedge effectiveness quantitatively in anticipation of the possibility that the critical terms no longer match. This is consistent with the notion that the “critical terms match” method to assess hedge effectiveness represents a long-haul approach, specifically one in which no actual calculation is necessary for the current assessment because the hedged item and the hedging instrument have terms that match as of the assessment date and, as such, are mathematically equivalent. By specifying the quantitative method of assessing hedge effectiveness to be applied when the critical terms of the hedged item and hedging instrument no longer match, an entity may potentially preserve hedge accounting in the periods that expectations change.

¹⁹⁸ Location differences may not need to be considered for hedging relationships in which the designated hedged risk is the variability in cash flows attributable to changes in a contractually specified component. Similarly, the grade of a commodity may not be an applicable critical term that needs to match when an entity designates a contractually specified component (i.e., a contractually specified index) as the hedged risk associated with a forecasted transaction in accordance with the requirements in ASC 815-20-25-22A and 25-22B.

After hedge inception, an entity is required to confirm in its periodic effectiveness assessments that the *critical terms continue to match* and that the derivative counterparty remains creditworthy. Refer to section 4.9 for additional discussion of assessment considerations related to credit risk in derivative contracts. Entities need to document that these steps have been performed each time hedge effectiveness is assessed (i.e., quarterly at a minimum). This may be accomplished by signing off for the period on a checklist prepared at the inception of the hedge.

How we see it

We believe entities should consider the following questions when determining the appropriateness of the critical terms match approach both at hedge inception and on subsequent assessments of hedge effectiveness:

- ▶ Is the forecasted transaction tied to a purchase order or contractual obligation with a specific date? If so, does the entity believe performance will occur on that date rather than earlier or later?
- ▶ If the forecasted transaction is not contractually tied to a specific date, is the entity's initial expectation of the timing or the amount of the forecasted transaction still management's best estimate?
- ▶ If the forecasted transactions are interest cash flows expected to occur at certain intervals (e.g., every six months) resulting from the anticipated issuance of debt within a specified time period, what would be the effect of a delay in the anticipated debt issuance within the specified range?

6.5.2

Certain cash flow hedges involving interest rate risk

ASC 815-30-35-10 through 35-32 provides guidance on quantitatively assessing hedge effectiveness in cash flow hedges of interest rate risk involving any of the following:

- ▶ A receive-variable, pay-fixed interest rate swap designated as a hedge of the variable interest payments on an existing floating-rate liability
- ▶ A receive-fixed, pay-variable interest rate swap designated as a hedge of the variable interest receipts on an existing variable-rate asset
- ▶ Cash flow hedges of the variability of future interest payments on interest bearing assets to be acquired or interest-bearing liabilities to be incurred

The guidance discusses the following quantitative methods for assessing effectiveness:

- ▶ Change-in-variable-cash-flows method
- ▶ Hypothetical-derivative method
- ▶ Change-in-fair-value method

As discussed in chapter 4, the inclusion of credit risk in the fair value measurement of the derivative in accordance with the fair value measurement concepts in ASC 820, generally does not affect the assessment of hedge effectiveness for a cash flow hedge under any of these three methods.¹⁹⁹ However, if the deterioration in the credit quality of either counterparty to the derivative results in payments under the terms of the derivative no longer being probable, an entity can no longer conclude that the hedging relationship is

¹⁹⁹ Depending on how the change-in-fair-value method is applied in practice, a change in the credit valuation adjustment can affect overall effectiveness. Refer to Example 12 of this chapter for further discussion.

expected to be highly effective in achieving offsetting cash flows. Similarly, hedge accounting would also need to be discontinued if credit risk changed to such an extent that the reporting can no longer assert that the associated hedged cash flows remain probable of occurring (e.g., due to deterioration in the credit standing of the counterparty to the forecasted transaction).

How we see it

We believe these methods can also be applied, by analogy, to the assessment of effectiveness in other cash flow hedging situations where the variable cash flows are not contractually established or where derivatives other than interest rate swaps are used. Examples include hedges of interest expense of a commercial paper program and forecasted purchases or sales of jet fuel, electricity or other commodities with forward, futures or option contracts. The declaration of one of the three methods is generally accepted to be part of required documentation for *all* cash flow hedges.

6.5.2.1

Change-in-variable-cash-flows method

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Subsequent Measurement

Assessing Hedge Effectiveness in Certain Cash Flow Hedges Involving Interest Rate Risk When Effectiveness Is Assessed on a Quantitative Basis

815-30-35-13

If, at the inception of the hedge, the fair value of the interest rate swap designated as the hedging instrument is zero or is somewhat near zero, any of the three methods in paragraph 815-30-35-10 may be applied to assess hedge effectiveness.

815-30-35-14

In contrast, if, at the inception of the hedge, the fair value of the interest rate swap is not somewhat near zero, the change-in-variable-cash-flows method shall not be applied to assess hedge effectiveness because that method does not require entities to consider the interest element of the change in fair value of a hedging instrument that incorporates a financing element; instead, either the hypothetical-derivative method or the change-in-fair-value method shall be applied. Those latter two methods require entities to consider the interest element of the change in fair value of a hedging instrument that incorporates a financing element that is not somewhat near zero, such as if the interest rate swap has been structured to be significantly in the money at the inception of the hedging relationship.

Change-in-Variable-Cash-Flows Method

815-30-35-16

An entity shall assess hedge effectiveness under the change-in-variable-cash-flows method by comparing the following items:

- a. The variable leg of the interest rate swap
- b. The hedged variable-rate cash flows on the asset or liability.

815-30-35-18

The change-in-variable-cash-flows method is consistent with the cash flow hedge objective of effectively offsetting the changes in the hedged cash flows attributable to the hedged risk. The method is based on the premise that only the floating-rate component of the interest rate swap provides the cash flow hedge, and any change in the interest rate swap's fair value attributable to the fixed-rate leg is not relevant to the variability of the hedged interest payments (receipts) on the floating-rate liability (asset).

815-30-35-19

An entity shall assess hedge effectiveness under this method by comparing the following amounts:

- a. The present value of the cumulative change in the expected future cash flows on the variable leg of the interest rate swap
- b. The present value of the cumulative change in the expected future interest cash flows on the variable-rate asset or liability.

815-30-35-20

Because the focus of a cash flow hedge is on whether the hedging relationship achieves offsetting changes in cash flows, if the variability of the hedged cash flows of the variable-rate asset or liability is based solely on changes in a variable-rate index, the present value of the cumulative changes in expected future cash flows on both the variable-rate leg of the interest rate swap and the variable-rate asset or liability shall be calculated using the discount rates applicable to determining the fair value of the interest rate swap.

This method is illustrated in Examples 2 and 12 below.

As described in ASC 815-30-35-20, if the variability of the hedged cash flows of the floating-rate asset or liability is based solely on changes in a floating-rate index, the cumulative changes in expected future cash flows on both the floating-rate leg of the swap and the floating-rate asset or liability should be discounted *using the rates applicable to determining the fair value of the swap*. This eliminates the potential for the hedging relationship to fail to meet the highly effective threshold solely because different yield curves (i.e., discounting curves) are used for measuring cash flows related to the hedged item and the hedging instrument.

When the fair value measurement concepts in ASC 820 are applied, we believe that, regardless of the methodology used to calculate the credit valuation adjustment on the derivative instrument, the credit valuation adjustment resulting from this analysis would also be applied to the hedged cash flows. However, if the cash flow dates for the swap and for the hedged item do not coincide, those paired cash flows will likely be discounted by slightly different rates because they would be derived from different date positions on the same yield curve.

If the present value of the cumulative change in the expected future cash flows on the variable leg of the swap is different than the present value of the cumulative change in the expected future interest cash flows on the floating-rate asset or liability, the relationship will not be perfectly effective. However, as long as the relationship is still highly effective, the entire change in fair value of the derivative included in the assessment of effectiveness will be deferred in AOCI until the expected future interest cash flows on the floating-rate asset or liability affect earnings.

When all of the conditions in ASC 815-30-35-22 are met, an entity may support that the hedging relationship is perfectly effective on a qualitative basis alone.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Subsequent Measurement

Change-in-Variable-Cash-Flows Method

815-30-35-22

The change-in-variable-cash-flows method will result in a perfectly effective hedge if all of the following conditions are met:

- a. The variable-rate leg of the interest rate swap and the hedged variable cash flows of the asset or liability are based on the same interest rate index (for example, three-month **London Interbank Offered Rate (LIBOR)** swap rate).
- b. The interest rate reset dates applicable to the variable-rate leg of the interest rate swap and to the hedged variable cash flows of the asset or liability are the same.
- c. The hedging relationship does not contain any other basis differences (for example, if the variable leg of the interest rate swap contains a cap and the variable-rate asset or liability does not).
- d. The likelihood of the obligor not defaulting is assessed as being probable.

815-30-35-23

However, a hedge would not be perfectly effective if any basis differences existed. For example, this would be expected to result from either of the following conditions, among others:

- a. A difference in the indexes used to determine cash flows on the variable leg of the interest rate swap (for example, the three-month U.S. Treasury rate) and the hedged variable cash flows of the asset or liability (for example, three-month LIBOR)
- b. A mismatch between the interest rate reset dates applicable to the variable leg of the interest rate swap and the hedged variable cash flows of the hedged asset or liability.

Note that the criteria under which the relationship is perfectly effective are very similar to those involving the use of the shortcut method.

How we see it

It is a common practice that derivative reset dates coincide with derivative payment dates, but this may not always be the case. Similarly, a portfolio of variable-rate cash flows might all reset at the same moment, but their actual payment intervals might differ. We have encountered occasional scenarios where the derivative's floating leg resets are designed to match the hedged transaction resets exactly, referencing the same index, but the actual cash flow dates related to the derivative and the hedged transactions do not exactly coincide. Such a difference would represent a mismatch between the hedged item and hedging instrument related to the time value of money that ASC 815-20-25-120 through 25-121 says "an entity generally shall consider ..." The SEC staff has stated through comment letters and speeches that they expect such payment date differences to be assessed quantitatively up front in the contemporaneous hedge documentation, even if the time value of money differential intuitively seems inconsequential.

There is one important limitation to the use of the change-in-variable-cash-flows method. As noted in ASC 815-30-35-14, if, at the inception of the hedge, the fair value of the swap is not zero or somewhat near zero (e.g., when the swap has been structured to have a significant payment at the inception of the hedge), the change-in-variable-cash-flows method may not be applied.

6.5.2.2 Hypothetical-derivative method

The assessment of hedge effectiveness may also be based on a comparison of the change in the fair value of the actual swap designated as the hedging instrument and the change in fair value of a hypothetical swap.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Subsequent Measurement

Hypothetical-Derivative Method

815-30-35-25

An entity shall assess hedge effectiveness under the hypothetical-derivative method by comparing the following amounts:

- a. The change in fair value of the actual interest rate swap designated as the hedging instrument
- b. The change in fair value of a hypothetical interest rate swap having terms that identically match the critical terms of the floating-rate asset or liability, including all of the following:
 1. The same **notional amount**
 2. The same repricing dates
 3. The same index (that is, the index on which the hypothetical interest rate swap's variable rate is based matches the index on which the asset or liability's variable rate is based)
 4. Mirror image caps and floors
 5. A zero fair value at the inception of the hedging relationship.

The hypothetical swap would have terms that identically match those of the floating-rate asset or liability and satisfy all of the applicable requirements to use the shortcut method (e.g., the same notional amount, same repricing dates, the index on which the swap's variable rate is based matches the index on which the asset or liability's variable rate is based, mirror image caps and floors, and zero fair value at the inception of the hedging relationship). Thus, the hypothetical swap is presumed to perfectly offset the hedged cash flows.

Under the hypothetical-derivative method, the change in the fair value of the perfect hypothetical swap is regarded as a proxy for the present value of the cumulative change in expected future cash flows from the hedged transaction. If the terms of the actual derivative exactly match all of the terms in ASC 815-30-35-25, an entity may support that the hedging relationship is perfectly effective on a qualitative basis alone. In those cases, the entity should document that all of the critical terms of the actual derivative and hypothetical derivative match as part of its quarterly effectiveness assessment.

Many variable rate debt instruments contain prepayment options that permit the debt to be prepaid at par. ASC 815-20-55-106 through 55-110 provides an example of a cash flow hedge of variable interest rate payments on such a debt instrument whereby effectiveness is assessed under the hypothetical-derivative method. The entity asserts that in the event the original debt is repaid before maturity, new floating rate debt will be issued to maintain an aggregate debt principal balance equal to or greater than the notional amount of the hedging instrument. The entity expects this new debt to share the key characteristics of the original debt issuance. As a result of this assertion, the example concludes that the hypothetical derivative would not include the prepayment option. Therefore, if all other critical terms of the debt are matched in the hedging instrument, the hypothetical swap would be identical to the actual swap (i.e., the hedging relationship would be considered perfectly effective).

In the event that the original debt is prepaid, the hedging relationship may continue uninterrupted, assuming the original debt is replaced with new floating rate debt as expected. Further, if the critical terms of the replacement debt continue to match the terms of the hedging instrument, the entity could continue to assert that the hedging relationship is perfectly effective on a qualitative basis.

The guidance indicates that, similar to the change-in-variable-cash-flows method, the discounting yield curve for both the actual swap and the hypothetical swap should be the same (ASC 815-30-35-29). The intent of the hypothetical-derivative method is for the fair value of both swaps to be determined using discount rates based on the same swap curve. When a hedger applies the fair value measurement concepts in ASC 820, we believe that regardless of the methodology used to calculate the credit valuation adjustment on the derivative instrument, the credit valuation adjustment for both the actual derivative and the hypothetical derivative should be the same (i.e., the inclusion of a credit valuation adjustment on the actual derivative is not a source of ineffectiveness in and of itself). However, similar to the change-in-variable-cash-flows method, the use of the same swap curve does not guarantee that the discount rates for paired cash flows will match exactly if the cash flows do not occur on the same date.

How we see it

An entity that uses the hypothetical-derivative method may need to redefine the hypothetically perfect derivative if its expectations about the forecasted transaction change (e.g., if the expected hedged risk changes, if the expected timing of future cash flows changes). Whenever a new hypothetical derivative has to be defined, the entity must revisit the historical forward curve from which the terms of the actual derivative were priced. This is necessary to determine what rate or price *would have been fixed* in the derivative, if the entity initially had the same expectation about the forecasted transaction as it has now. This look back to the historical forward curve used at hedge inception is necessary to satisfy the requirement that the hypothetical derivative always has a zero fair value at inception of the hedging relationship.

If the entity's expectations about the amount of the forecasted transaction change, the entity may be required to dedesignate (or partially dedesignate) the hedge relationship. Under a full dedesignation, a new hedging relationship would need to be designated with the terms of the new hypothetically perfect derivative based on the forward curve as of the redesignation date. Under a partial dedesignation, the existing hedging relationship would continue, but the notional of the hypothetically perfect derivative would change to match the revised estimate of the forecasted transaction. The other terms of the hypothetical derivative (e.g., the fixed rate on the swap) would not change. In either case, the entity would follow the guidance in ASC 815-30-40-4 through 40-6 to account for the gain/loss (or portion of the gain/loss) on the hedging instrument that was previously reported in AOCI.

6.5.2.3

Change-in-fair-value method**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Cash Flow Hedges***Subsequent Measurement**Change-in-Fair-Value Method***815-30-35-31**

An entity shall assess hedge effectiveness under the change-in-fair-value method by comparing the following amounts:

- a. The present value of the cumulative change in expected variable future interest cash flows that are designated as the hedged transactions
- b. The cumulative change in the fair value of the interest rate swap designated as the hedging instrument.

815-30-35-32

The discount rates applicable to determining the fair value of the interest rate swap designated as the hedging instrument shall also be applied to the computation of present values of the cumulative changes in the hedged cash flows.

An entity also may assess hedge effectiveness based on a comparison of the cumulative change in fair value of the actual swap designated as the hedging instrument and the present value of the cumulative change in the expected variable future cash flows.

As described in ASC 815-30-35-32, if the change-in-fair-value method is applied, the determination of the fair value of the designated interest rate swap and the present value of the cumulative changes in expected future cash flows should be discounted *using* the same rates (i.e., the discount rate applied to determine the fair value of the actual swap). When an entity applies the fair value measurement concepts in ASC 820, we believe that, regardless of the methodology used to calculate the credit valuation adjustment on the derivative instrument (e.g., the discount rate adjustment technique to consider the nonperformance risk of both itself and the counterparty to the hedging instrument or other acceptable methodologies), the credit valuation adjustment for both the actual derivative and the present value of the cumulative changes in the hedged cash flows would be the same.

However, as noted in chapter 4, because the literal application of this technique focuses on the present value of the cumulative change in the expected variable future interest cash flows, only the end-of-period credit valuation adjustment factors into part (a) of the calculation. For part (b) of the calculation, the cumulative change in the fair value of the swap includes both the beginning credit valuation adjustment and the ending credit valuation adjustment. Accordingly, for any period in which the CVA changes, the relationship will not be perfectly effective.

Example 12 compares and contrasts these three methodologies from ASC 815-30-35-10 through 35-32 in greater detail and also addresses a common variant of the change-in-fair-value method that is occasionally encountered in practice.

How we see it

ASC 815 requires that an entity define and document, at the time it designates a hedging relationship, the method it will use to assess the hedge's effectiveness in achieving offsetting cash flows. In addition, an entity should ordinarily assess the effectiveness of similar hedges in a similar manner. The use of different methods for similar hedges should be justified.

6.5.3 ‘Simplified hedge accounting approach’

The “simplified hedge accounting approach” provides certain private companies with the option to use a qualitative approach for interest rate swaps used to economically convert variable-rate debt to fixed-rate debt. This approach allows private companies entering into these swaps to assume that the cash flow hedging relationship is perfectly effective, when certain criteria are met.

6.5.3.1 Scope

The simplified hedge accounting approach can be elected by companies that are not (1) PBEs, as defined in the Master Glossary of the Codification, or (2) financial institutions, as described in ASC 942-320-50-1. The approach also cannot be applied by employee benefit plans within the scope of ASC 960 through ASC 965 or not-for-profit entities.

Only swaps that a company uses to economically convert forecasted interest payments or forecasted issuances of variable-rate debt to fixed-rate debt qualify for the simplified approach. This approach cannot be used for hedges of floating-rate assets or the forecasted issuance of fixed-rate debt.

Refer to Example 8 for an illustration of how a company might document a hedge under the simplified hedge accounting approach.

6.5.3.2 Requirements and application of the approach

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging—General

Recognition

Assuming Perfect Hedge Effectiveness in a Cash Flow Hedge of a Variable-Rate Borrowing with a Receive-Variable, Pay-Fixed Interest Rate Swap Recorded under the Simplified Hedge Accounting Approach

815-20-25-137

An eligible entity under paragraph 815-20-25-135 must meet all of the following conditions to apply the simplified hedge accounting approach to a cash flow hedge of a variable-rate borrowing with a receive-variable, pay-fixed interest rate swap:

- a. Both the variable rate on the swap and the borrowing are based on the same index and reset period (for example, both the swap and borrowing are based on one-month London Interbank Offered Rate [LIBOR] or both the swap and borrowing are based on three-month LIBOR).
- b. The terms of the swap are typical (in other words, the swap is what is generally considered to be a “plain-vanilla” swap), and there is no floor or cap on the variable interest rate of the swap unless the borrowing has a comparable floor or cap.
- c. The repricing and settlement dates for the swap and the borrowing match or differ by no more than a few days.
- d. The swap’s fair value at inception (that is, at the time the derivative was executed to hedge the interest rate risk of the borrowing) is at or near zero.
- e. The notional amount of the swap matches the principal amount of the borrowing being hedged. In complying with this condition, the amount of the borrowing being hedged may be less than the total principal amount of the borrowing.
- f. All interest payments occurring on the borrowing during the term of the swap (or the effective term of the swap underlying the forward starting swap) are designated as hedged whether in total or in proportion to the principal amount of the borrowing being hedged.

If all of these conditions are met, a company may assume that the relationship is perfectly effective and may recognize all of the changes in either the fair value or settlement value of the swap in OCI. The concept of settlement value is described later in this section.

A company that elects to apply the simplified hedge accounting approach will have to follow all of ASC 815's other requirements, including determining in each period that it is probable that the forecasted cash flows (i.e., interest payments) will occur and assessing whether there have been adverse developments regarding the risk of counterparty default. We understand that, consistent with the requirements of ASC 815, companies generally should use the simplified hedge accounting approach for all eligible swaps in similar relationships²⁰⁰ (e.g., eligible prime-based swaps) for which they elect hedge accounting.

Discontinuation of hedge accounting

If any of the conditions for use of the simplified hedge accounting approach cease to be met or the relationship otherwise ceases to qualify for hedge accounting, a company would have to dedesignate the hedging relationship.

If the company dedesignated the hedging relationship either because the interest rate swap was terminated or the company voluntarily removed the hedge designation, none of the amounts deferred in AOCI would be immediately reclassified to earnings as the criteria for simplified hedge accounting would have continued to have been met while the hedging relationship was in place.

Amounts deferred in AOCI would be reclassified to earnings in accordance with ASC 815-30-40-1 through 40-6. For example, if variable-rate debt is prepaid and is not to be replaced with other debt, the amount in AOCI would be reclassified to earnings immediately. However, if the interest rate swap is terminated and the debt remains, the amounts in AOCI would be reclassified into earnings in the period or periods during which interest payments will be made.

Refer to section 6.7 of this chapter for a detailed discussion on discontinuation of cash flow hedge accounting.

How we see it

The simplified hedge accounting approach requires the repricing dates of the variable-rate debt and the swap to differ by no more than a "few days." While the FASB has not provided additional guidance, we generally believe that as many as three to seven days would be considered appropriate.

Future refinancing

The simplified hedge accounting approach would continue to apply if debt that is refinanced (as variable-rate bank loans typically are) continues to meet all of the applicable conditions. Consider an eligible private company that enters into a five-year variable-rate bank loan indexed to three-month SOFR, then hedges the forecasted SOFR payments using a five-year receive-variable, pay-fixed interest rate swap and determines that the hedging relationship qualifies for the simplified hedge accounting approach.

If the company refinances the loan in year four and enters into another five-year variable-rate bank loan that is also indexed to three-month SOFR and the reset dates continue to match those of the interest rate swap, we generally believe that the company could continue to apply the simplified hedge accounting approach for the remaining term of the original swap. However, if the hedge no longer meets the required conditions as a result of the refinancing, the company would not be able to continue to apply the simplified hedge accounting approach and would have to dedesignate the hedging relationship.

²⁰⁰ ASC 815-20-25-81.

Hedge documentation requirement

The guidance allows private companies to complete their formal hedge documentation up until the date on which their first annual financial statements after hedge inception are available to be issued.²⁰¹ The other hedge accounting approaches in ASC 815 require some form of hedge documentation at the inception of the hedging relationship.

How we see it

A company should carefully review the terms of the interest rate swap and the variable-rate debt to make sure the swap qualifies for this approach. If a company does not complete the concurrent hedge documentation at inception of the hedge because it expects to use the simplified method but later determines that the swap does not meet the required conditions, it would not be able to apply another hedge accounting method retroactively. Moreover, because the derivative will not have a fair value of zero, the relationship likely will not be perfectly effective. However, this may have little effect on the accounting for the swap as long as the newly designated relationship is highly effective, given that entities are no longer required to separately measure and report hedge ineffectiveness. In extreme cases, the non-zero fair value of the swap could result in a failure to qualify for hedge accounting prospectively.

Alternatively, private companies that complete the concurrent hedge documentation required by ASC 815-20-25-139 have flexibility in electing the method of assessing hedge effectiveness up until their next interim or annual financial statements are available to be issued. Therefore, if the relationship did not qualify for the simplified hedge accounting approach but was highly effective under another assessment method, the entity could qualify for hedge accounting retrospectively. Refer to section 4.4.5 for additional information on the concurrent hedge documentation requirements for certain private companies.

Application to 'you-pick-'em' debt

Variable-rate debt that allows borrowers to pick the interest rate index used in resets (e.g., SOFR the prime rate) and/or the frequency at which the rate is reset (e.g., monthly, quarterly) may qualify for the simplified hedge accounting approach, if both the interest rate index and the reset period match those of the interest rate swap at the swap's inception. This debt is commonly called "you-pick-'em" debt.

A company that applies the simplified hedge accounting approach has to specify in its formal hedge documentation both the index it is electing to hedge and the reset frequency and state that those terms match the terms of the interest rate swap. Other approaches require that the documentation also include an assertion that the company will not exercise its right to change those terms.

Because the terms of the swap typically don't provide the same flexibility (e.g., selecting a different index and/or frequency), changing the index or rate frequency on the variable-rate debt would generally result in the terms of the interest rate swap and the variable-rate debt no longer matching. As a result, the hedge would no longer qualify for the simplified hedge accounting approach, and the company would have to dedesignate the hedging relationship.

²⁰¹ Financial statements are considered available to be issued when they are complete in a form and format that complies with US GAAP and all approvals necessary for issuance have been obtained (e.g., from management, the board of directors and/or significant shareholders). The process involved in creating and distributing the financial statements will vary depending on an entity's management and corporate governance structure, as well as statutory and regulatory requirements.

How we see it

A pattern of repeatedly determining that the terms of hedged forecasted interest payments no longer meet the criteria to apply the simplified hedge accounting approach would call into question both the company's ability to accurately predict forecasted interest payments and the propriety of using the simplified hedge accounting approach in the future. This result would be similar to what happens when entities miss cash flow forecasts under ASC 815-30-40-5.

Application to forward-starting swaps

The guidance also applies to forward-starting receive-variable, pay-fixed swaps used to hedge future interest payments associated with variable-rate debt (e.g., the forecasted issuance of five-year variable rate debt in one year with a forward-starting receive-variable, pay-fixed interest rate swap with a five-year effective term and an effective date commencing one year after the swap's inception).

Given that the repricing and settlement dates for the swap and the borrowing have to either match or differ by no more than a few days, a company that is trying to hedge debt it plans to issue in the future would have to be fairly certain of the timing to qualify for the simplified hedge accounting approach. If the reset date on which the variable-rate debt is issued differs by more than a "few days" from the reset dates of the forward-starting swap, the company would no longer qualify for the simplified hedge accounting approach.

As noted above, if a swap no longer qualifies for the simplified hedge accounting approach, a company would have to dedesignate the hedging relationship.

How we see it

Companies that want to hedge debt they plan to issue in the future may not want to use the simplified hedge accounting approach if they are unsure of the timing of the issuance and they are hedging benchmark interest risk. Other hedge accounting approaches available under ASC 815 allow companies to continue to qualify for hedge accounting if the timing changes and the hedge is still highly effective. The simplified hedge accounting approach does not provide this flexibility.

Settlement value

To address concerns about the cost and complexity of estimating fair value, the simplified hedge accounting approach gives companies the option of measuring swaps for which the simplified hedge accounting approach is applied at settlement value. While "settlement value" is not a defined term in the Master Glossary, the Private Company Council and the FASB have indicated that they believe the primary difference between settlement value and fair value is that nonperformance risk is not considered in determining settlement value.

In this context, nonperformance risk relates to the credit risk of both the reporting entity and the counterparty to the swap. The standard notes that an acceptable approach for estimating a swap's settlement value is to perform a present value calculation of the swap's remaining estimated cash flows using a valuation technique that is not adjusted for nonperformance risk. If the hedging relationship ceases to qualify for hedge accounting, the swap would have to be measured at fair value prospectively. We understand that companies can elect to use settlement value on a swap-by-swap basis as long as the swap is designated and qualifies as a hedging instrument under the simplified hedge accounting approach.

Disclosures

The disclosure requirements in ASC 815 and ASC 820 apply to swaps accounted for under the simplified hedge accounting approach. Refer to chapter 8 for disclosures required by ASC 815. Refer to chapter 20 of our *FRD, Fair value measurement*, for disclosure requirements under ASC 820.

A company that elects to measure a swap at settlement value would substitute settlement value for fair value in the required disclosures where applicable. Amounts disclosed at settlement value should be disclosed separately from amounts disclosed at fair value.

The simplified hedge accounting approach also affects the financial instruments disclosure requirements under ASC 825. ASC 825 excludes from its fair value disclosure requirements interest rate swaps for which the simplified hedge accounting approach is applied. As such, companies that elect to measure designated swaps at settlement value on the statement of financial position would not be required to separately disclose the fair value of these swaps.

In addition, ASC 825-10-50-3(c) is clear that holding interest rate swaps accounted for under the simplified hedge accounting approach would not require a nonpublic entity (as defined in the Master Glossary) with total assets less than \$100 million on the date of the financial statements to disclose the fair value of all its financial instruments in accordance with ASC 825. That is, for purposes of meeting the criteria in ASC 825-10-50-3, receive-variable, pay-fixed interest rate swaps for which the simplified hedge accounting approach is applied are not considered derivative instruments under ASC 815.

Transition

In March 2016, the FASB issued ASU 2016-03,²⁰² which eliminated the effective date for the adoption of the simplified hedge accounting approach and extends the transition guidance indefinitely. This amendment was provided so that entities could benefit from the favorable transition provisions discussed in the following paragraphs regardless of when they first apply the guidance. The ASU also clarifies that private companies need not perform a preferability assessment the first time they elect to apply the simplified hedge accounting approach.

The simplified hedge accounting approach may be elected for eligible interest rate swaps that exist at the date of adoption as well as those entered into subsequently. Companies can apply either a modified retrospective approach or a full retrospective approach upon the initial adoption of this guidance for existing swaps.

In addition, for swaps that existed at the date of adoption, the criterion that the swap's fair value at the time of application be at or near zero need not be considered as long as the swap's fair value was at or near zero at the time the swap was entered into.

6.6 Purchased options used in cash flow hedges

Chapter 4 discusses various considerations when an option is designated as the hedging instrument in cash flow and fair value hedging relationships, including when the time value of an option is excluded from the assessment of effectiveness. This section discusses strategies that are unique to cash flow hedging relationships that involve purchased options, including when the assessment of effectiveness is based on the total changes in an option's cash flows (i.e., time value is not excluded).

²⁰² ASU 2016-03, *Intangibles – Goodwill and Other (Topic 350); Business Combinations (Topic 805); Consolidation (Topic 810); Derivatives and Hedging (Topic 815): Effective Date and Transition Guidance (a Consensus of the Private Company Council)*.

6.6.1 Assessing effectiveness based on terminal value

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging–General

Recognition

Assessing Hedge Effectiveness Based on an Option's Terminal Value

815-20-25-126

The guidance in paragraph 815-20-25-129 addresses a cash flow hedge that meets all of the following conditions:

- a. The hedging instrument is a purchased option or a combination of only options that comprise either a net purchased option or a zero-cost collar.
- b. The exposure being hedged is the variability in expected future cash flows attributed to a particular rate or price beyond (or within) a specified level (or levels).
- c. The assessment of effectiveness is documented as being based on total changes in the option's cash flows (that is, the assessment will include the hedging instrument's entire change in fair value, not just changes in intrinsic value).

815-20-25-128

For a hedging relationship that meets all of the conditions in paragraph 815-20-25-126, an entity may focus on the hedging instrument's terminal value (that is, its expected future pay-off amount at its maturity date) in determining whether the hedging relationship is expected to be highly effective in achieving offsetting cash flows attributable to the hedged risk during the term of the hedge. An entity's focus on the hedging instrument's terminal value is not an impediment to the entity's subsequently deciding to dedesignate that cash flow hedge before the occurrence of the hedged transaction. If the hedging instrument is a purchased cap consisting of a series of purchased caplets that are each hedging an individual hedged transaction in a series of hedged transactions (such as caplets hedging a series of hedged interest payments at different monthly or quarterly dates), the entity may focus on the terminal value of each caplet (that is, the expected future pay-off amount at the maturity date of each caplet) in determining whether each of those hedging relationships is expected to be highly effective in achieving offsetting cash flows. The guidance in this paragraph applies to a purchased option regardless of whether at the inception of the cash flow hedging relationship it is at the money, in the money, or out of the money.

This guidance allows the *entire* change in the fair value of a purchased option or zero-cost collar to be recorded in OCI for certain qualifying cash flow hedges. It is important to note that this guidance does not apply to options used in fair value hedges or to net written options.

An entity that designates the risk of overall changes in cash flows as the hedged risk, pursuant to ASC 815-20-25-15(i)(2) or (j)(1), and documents that the assessment of effectiveness will be based on total changes in the purchased option's (or zero-cost collar's) cash flows (as described in ASC 815-20-25-126), would receive different accounting treatment than an entity that documents that the assessment of effectiveness will be based on only the changes in intrinsic value as permitted by ASC 815-20-25-82(a). (Refer to section 4.8.3.5 for discussion related to effective assessments based on only changes in intrinsic value).

The key documentation in this approach lies in defining the hedged transaction. The guidance requires entities to document that they will assess effectiveness based on the "total changes in the option's cash flows" (that is, the assessment will include the hedging instrument's entire change in fair value, not just changes in intrinsic value).

Using this language allows entities to focus on the “terminal value” of the option, described as “the expected future pay-off amount at the maturity date.” If the change in this terminal value offsets the change in the expected cash flows of the hedged item, the entire change in the fair value of the option, including time value, can be recorded in OCI. This “terminal value” notion suggests that the option must have a single exercise date. ASC 815-20-25-129 notes that if the holder of an option chooses to pay for the ability to exercise the option at dates prior to the maturity date (as in an American-style option), the hedging relationship would not be perfectly effective. Therefore, a European-style option is the hedging instrument best suited for this strategy.

How we see it

European-style options can only be exercised on their maturity date, and not sooner. However, many options are targeted to a series of “pay dates,” each of which is viewed as having its own “maturity” and which will result in a payment to the holder if the strike rate is exceeded on any of the “pay dates” during the life of the instrument. For example, an interest rate cap with a maturity date of 12 months from now, but which pays on a monthly basis, is considered to be composed of 12 “caplets,” the first with a one-month maturity, the second with a two-month maturity, and so on. Each caplet can only be exercised at its respective maturity date, so the entire interest rate cap is viewed as a “European-style” option and thus eligible to follow the “terminal value approach”, even though it could conceivably pay at 12 separate dates during its 12-month life.

The guidance lists four criteria that, when met, allows an entity to assume perfect effectiveness.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging—General

Recognition

Assessing Hedge Effectiveness Based on an Option’s Terminal Value

815-20-25-129

A hedging relationship that meets all of the conditions in paragraph 815-20-25-126 may be considered to be perfectly effective if all of the following conditions are met:

- a. The critical terms of the hedging instrument (such as its notional amount, underlying, maturity date, and so forth) completely match the related terms of the hedged forecasted transaction (such as the notional amount, the variable that determines the variability in cash flows, the expected date of the hedged transaction, and so forth).
- b. The strike price (or prices) of the hedging option (or combination of options) matches the specified level (or levels) beyond (or within) which the entity’s exposure is being hedged.
- c. The hedging instrument’s inflows (outflows) at its maturity date completely offset the change in the hedged transaction’s cash flows for the risk being hedged.
- d. The hedging instrument can be exercised only on a single date – its contractual maturity date.

The condition in (d) is consistent with the entity’s focus on the hedging instrument’s terminal value. If the holder of the option chooses to pay for the ability to exercise the option at dates before the maturity date (for example, by acquiring an American-style option), the hedging relationship would not be perfectly effective.

815-20-25-129A

In a hedge of a group of forecasted transactions in accordance with paragraph 815-20-25-15(a)(2), an entity may assume that the timing in which the hedged transactions are expected to occur and the maturity date of the hedging instrument match in accordance with paragraph 815-20-25-129(a) if those forecasted transactions occur and the derivative matures within the same 31-day period or fiscal month.

Derivatives and Hedging – Cash Flow Hedges***Subsequent Measurement******Hedging Relationship in Which Hedge Effectiveness Is Based on an Option's Terminal Value*****815-30-35-33**

If an entity concludes under paragraphs 815-20-25-129 through 25-129A that the hedging relationship may not be considered to be perfectly effective, the entity shall assess hedge effectiveness by comparing the following amounts:

- a. The change in fair value of the actual hedging instrument
- b. The change in fair value of a perfectly effective hypothetical hedging instrument. That hypothetical hedging instrument shall have terms that meet the four conditions listed in paragraphs 815-20-25-129 through 25-129A.

Basis differences and timing differences would prevent the relationship from being perfectly effective, but changes in the time value of the option would not. When hedging a group of forecasted transactions in accordance with ASC 815-20-25-15(a)(2), an entity can assume that the timing of the hedged transactions and maturity date of the option match in accordance with ASC 815-20-25-129(a) if those forecasted transactions occur and the option matures within the same 31-day period or fiscal month.

For entities using American-style options in these hedging strategies, or any other options that do not meet all four criteria, hedge effectiveness must be assessed by comparing the actual option held to the perfect hypothetical derivative that would meet the criteria described above. As long as the relationship is highly effective, the entire change in fair value of the designated purchased option or zero-cost collar is recorded in OCI in accordance with ASC 815-30-35-3.

An entity is still required to perform and document an assessment of hedge effectiveness at the inception of the hedging relationship and on an ongoing basis throughout the hedge period. That would include (1) verifying and documenting whether the critical terms of the hedging instrument and the forecasted transaction have changed during the period in review, (2) determining that the forecasted transaction is still probable of occurring at the same time and location as originally projected, and (3) assessing whether there have been adverse developments regarding the risk of counterparty default.

6.6.1.1 Reclassifications out of AOCI

The gain or loss on the hedging instrument that is reported in AOCI is reclassified into earnings consistent with the provisions in ASC 815-30-35-38 and 35-39. For an option hedging a single cash flow, such as the purchase of raw materials or inventory, the amounts would be reclassified from AOCI when the items were sold and cost of sales recorded. The reclassification process is much more complicated when the option hedges a series of cash flows, as in an interest rate cap or floor composed of a series of “caplets” or “floorlets.”

For example, assuming perfect effectiveness for simplicity, the fair value of an interest rate cap at the inception of a hedging relationship of interest rate risk on variable-rate debt with quarterly interest payments over the next two years would be allocated to the respective caplets within the cap on a fair value-basis at the inception of the hedging relationship. The change in each respective allocated fair value amount should be reclassified out of AOCI into earnings when each of the hedged forecasted transactions (the eight interest payments) affects earnings.

Because the amount in AOCI is a net amount composed of both derivative gains and derivative losses, the change in the respective allocated fair value amount for an individual caplet that is reclassified out of AOCI into earnings may be greater than the net amount in AOCI at a given time. The periodic amounts reclassified from AOCI will also vary from period to period because of the fair values of the individual caplets that make up the cap. (Example 7 in this chapter illustrates the application of this concept.)

How we see it

The benefit of using the “terminal value” approach is most evident when the hedging instrument is a European-style option with a single cash flow at a single maturity that likewise hedges a single forecasted transaction with a single cash flow. The accounting is greatly simplified because the changes in time value are recorded in OCI over the entire life of the option and no reclassification of this amount is necessary until the forecasted transaction affects earnings. An example might be the use of a foreign currency option to hedge the forecasted sale of a piece of machinery denominated in a nonfunctional currency.

However, if an option or collar strategy with a series of caplets and/or floorlets is hedging a series of cash flows associated with forecasted transactions, such as an interest rate cap hedging floating-rate debt payments, or a foreign currency floor hedging a series of forecasted sales of inventory in a nonfunctional currency, a portion of the change in time value is effectively still recognized in earnings over the life of the hedge. In these cases, entities may find it less complex to exclude the option’s time value from the assessment of hedge effectiveness and amortize it to earnings (as discussed in section 4.8.3.5) than to assess hedge effectiveness based on the option’s terminal value. Amortizing the option’s time value into earnings using a systematic and rational approach (e.g., on a straight-line basis) will likely reduce earnings volatility when compared to the terminal value approach because the individual time values associated with individual caplets and floorlets are not uniform.

6.6.2

Other guidance involving options

Importantly, the guidance also permits designating a hedged item that excludes ranges of changes in the underlying for which there is no change in the hedging instrument’s intrinsic value.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging–General

Recognition

Hedge Effectiveness of a Net-Purchased Combination of Options

815-20-25-130

The guidance in the following paragraph addresses a cash flow hedging relationship that meets both of the following conditions:

- a. A combination of options (deemed to be a net purchased option) is designated as the hedging instrument.
- b. The effectiveness of the hedge is assessed based only on changes in intrinsic value of the hedging instrument (the combination of options).

815-20-25-131

The assessment of effectiveness of a cash flow hedging relationship meeting the conditions in the preceding paragraph may be based only on changes in the underlying that cause a change in the intrinsic value of the hedging instrument (the combination of options). Thus, the assessment can exclude ranges of changes in the underlying for which there is no change in the hedging instrument's intrinsic value.

An example in the guidance²⁰³ describes a Japanese yen functional currency entity needing to purchase inventory denominated in US dollars in the future and using the following instruments in a hedging relationship:

- ▶ One purchased call option to purchase \$150,000,000 at an exchange rate of ¥125/\$1. Premium paid: \$1,536,885.
- ▶ One written put option that would obligate the entity to purchase \$150,000,000 at an exchange rate of ¥113/\$1. Premium received: \$1,536,885.
- ▶ One purchased put option to sell \$150,000,000 at an exchange rate of ¥108/\$1. Premium paid: \$737,705.

The entity needs to sell yen and purchase US dollars in the future, so it is concerned that the yen will weaken against the dollar (e.g., that more yen than the current forward rate of ¥120/\$1 will be required to purchase \$1 in the future).

| Illustration 6-9: Possible outcomes of the hedge | | | | |
|---|---|--|--|---|
| | Purchased dollar call option at ¥125/\$1 | Written dollar put option at ¥113/\$1 | Purchased dollar put option at ¥108/\$1 | Net effect on entity |
| Rates are above ¥125/\$1 | Exercised by entity. | Not exercised. | Not exercised. | Locks in rate at ¥125/\$1; included in hedge effectiveness assessment. |
| Rates are between ¥125/\$1 and ¥113/\$1 | Not exercised. | Not exercised. | Not exercised. | No impact – rates float; excluded from hedge effectiveness assessment. |
| Rates are between ¥113/\$1 and ¥108/\$1 | Not exercised. | Exercised against entity. | Not exercised. | Locks in rate at ¥113/\$1; included in hedge effectiveness assessment. |
| Rates are below ¥108/\$1 | Not exercised. | Exercised against entity. | Exercised by entity. | The entity benefits from enjoying floating rates but they float at a fixed spread of ¥5/\$1 less favorable than the spot exchange rate; excluded from hedge effectiveness assessment. |

Under the guidance, the entity assesses the effectiveness of the hedge based only on changes in the underlying that cause a change in the intrinsic value of the combination of options. Thus, the entity would assess effectiveness of the hedge only when the yen-USD exchange rate is above ¥125/\$1 and between ¥113/\$1 and ¥108/\$1 (the periods where the hedge fixes all the variability in forecasted cash flows). Likewise, the entity's assessment would exclude changes in the yen-USD exchange rate between ¥113/\$1 and ¥125/\$1 and below ¥108/\$1.

In this example, the entity would separately recognize the initial time value associated with the combination of options excluded from the assessment of effectiveness in earnings using a systematic and rational method over the life of the hedging instrument, unless an accounting policy election is made to recognize the fair value of the excluded components in earnings immediately. Refer to section 4.8.3.5 for further detail on the recognition model for excluded components, including option premiums.

²⁰³ ASC 815-20-55-212 through 55-225.

6.7 Discontinuing a cash flow hedge

ASC 815-30-40 provides special guidance for discontinuing a cash flow hedge. Under the following three conditions, hedge accounting should be discontinued prospectively:

- ▶ If the hedge no longer meets all of the hedging criteria previously discussed in depth in chapter 4 (e.g., the hedged forecasted transaction is probable of occurring, the hedge is expected to be highly effective)
- ▶ The derivative expires or is sold, terminated, or exercised
- ▶ The entity removes the designation of the derivative as a cash flow hedge²⁰⁴

In these circumstances, from the date the hedging relationship is discontinued, any subsequent changes in the fair value of the derivative are accounted for under the applicable provisions of ASC 815. If the derivative continues to exist, its future changes in fair value would be accounted for in income unless it is redesignated in a new qualifying hedging relationship.

The discontinuation of a cash flow hedging relationship does not necessarily indicate that the amounts previously recorded in AOCI must be immediately reclassified into earnings.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Derecognition

Discontinuing Hedge Accounting

815-30-40-4

The net derivative instrument gain or loss related to a discontinued cash flow hedge shall continue to be reported in accumulated other comprehensive income unless it is probable that the **forecasted transaction** will not occur by the end of the originally specified time period (as documented at the inception of the hedging relationship) or within an additional two-month period of time thereafter, except as indicated in the following sentence. In rare cases, the existence of extenuating circumstances that are related to the nature of the forecasted transaction and are outside the control or influence of the reporting entity may cause the forecasted transaction to be probable of occurring on a date that is beyond the additional two-month period of time, in which case the net derivative instrument gain or loss related to the discontinued cash flow hedge shall continue to be reported in accumulated other comprehensive income until it is reclassified into earnings pursuant to paragraphs 815-30-35-38 through 35-41.

815-30-40-5

If it is probable that the hedged forecasted transaction will not occur either by the end of the originally specified time period or within the additional two-month period of time and the hedged forecasted transaction also does not qualify for the exception described in the preceding paragraph, that derivative instrument gain or loss reported in accumulated other comprehensive income shall be reclassified into earnings immediately. A pattern of determining that hedged forecasted transactions are probable of not occurring would call into question both an entity's ability to accurately predict forecasted transactions and the propriety of using hedge accounting in the future for similar forecasted transactions.

²⁰⁴ Note that an entity can prospectively change the designation of a derivative in a hedging relationship. Such a change will affect the accounting for the derivative and the hedged item subsequent to the redesignation. However, an entity cannot change the designation of a derivative that has not been highly effective in such a way to make it highly effective and apply hedge accounting retroactively.

815-30-40-6

Derivative instrument gains and losses that had initially been reported in other comprehensive income as a result of a cash flow hedge and then reclassified to earnings (because the entity subsequently concluded that it was probable that the forecasted transaction would not occur within the originally specified time period or the additional period of time described in paragraph 815-30-40-4) shall not later be reclassified out of earnings and back into accumulated other comprehensive income due to a reassessment of probabilities.

As a general rule, derivative gains or losses reported in AOCI are required to be recorded in earnings when it becomes probable that the forecasted transaction will not occur by the end of the originally specified time period, as documented at the inception of the hedging relationship (or within an additional two-month period of time thereafter). If it is probable that the hedged forecasted transaction will *not* occur by the end of the specified time period, including the additional two-month period thereafter, the derivative gain or loss reported in AOCI is reclassified into earnings immediately. In contrast, if it is *still reasonably possible* that the transaction will occur by the end of the originally specified time period, including the additional two-month extension, it is appropriate to continue to include in AOCI the gain or loss that arose before the date the forecasted transaction was deemed no longer probable of occurring. The gain or loss in AOCI related to a discontinued cash flow hedge would only be reclassified to earnings when an entity determines it is *probable that the forecasted transaction will not occur within the originally specified time period plus an additional two-month period of time thereafter*. Judgment will be necessary to make this distinction.

However, the guidance in ASC 815-30-40-4 includes an exception to the general rule discussed above when, in rare cases, the existence of extenuating circumstances that are outside the control or influence of the reporting entity cause the forecasted transaction to be probable of occurring on a date that is beyond the additional two-month time period. Examples of these extenuating circumstances may include natural disasters, such as a hurricane that disrupts the production of natural gas or crude oil, or a labor strike that results in the shortage of a key component needed in the production of inventory.

In April 2020, the FASB staff issued a [question-and-answer document](#) related to the accounting for cash flow hedges disrupted by the COVID-19 pandemic. In this document, the FASB stated that entities may apply the exception for extenuating circumstances to forecasted transactions that are delayed due to the effects of the COVID-19 pandemic but noted that such a determination will require judgment based on facts and circumstances.

If a forecasted transaction delayed due to extenuating circumstances that are outside the control or influence of the reporting entity is probable of occurring more than two months after the originally specified period, an entity would continue to retain amounts previously recorded in AOCI until the forecasted transaction affects earnings. However, in its question-and-answer document related to the COVID-19 pandemic, the FASB staff emphasized that the exception only applies to situations in which the forecasted transaction remains probable of occurring “over a time period that is reasonable given the nature of the entity’s business, the nature of the forecasted transaction, and the magnitude of the disruption to the entity’s business related to the effects of the COVID-19 pandemic.” The staff’s view clarifies that entities cannot consider whether forecasted transactions are probable of occurring at any point in the future.

How we see it

We believe that, to apply the exception in ASC 815-30-40-4, entities will need to use judgment to determine what time period is reasonable. For example, with respect to forecasted transactions that are delayed due to the effects of the COVID-19 pandemic, entities in different industries may reach different conclusions because the expected recovery time may be longer for certain industries. This determination could also be affected by the nature of the forecasted transaction (e.g., whether the delayed transaction is discrete and, therefore, easily identifiable or instead part of a series of recurring transactions).

In addition, it is our understanding that with respect to forecasted transactions delayed due to the effects of the COVID-19 pandemic, the FASB staff believes the exception may be applied to hedges of recurring transactions (e.g., monthly forecasted purchases of a commodity) as well as hedges of discrete forecasted transactions (e.g., delayed purchase in a foreign currency of a unique piece of equipment).

However, we believe it is important for entities that apply the exception to recurring transactions to use a consistent framework for identifying which probable future transactions represent previously hedged transactions that were delayed due to the effects of COVID-19. In our view, an entity should first consider transactions that are probable of occurring in a given future period to be associated with active hedging relationships for that period, if any. If the amount of items in probable forecasted transactions expected to occur in the period exceeds the amount designated in any active hedging relationships, that excess may be considered in determining whether the delayed forecasted transactions are probable of occurring in a reasonable period of time.

If an entity determines that it is not probable that the forecasted transaction will occur within a reasonable time period beyond the additional two-month period, the exception cannot be applied and amounts previously recorded in AOCI would have to be reclassified into earnings immediately and disclosed in the entity's interim and annual financial statements.

In determining the probability that a forecasted transaction will occur, an entity should consider the accuracy of its past forecasts.²⁰⁵ In general, an entity would have rarely changed its forecasts from probable to not probable if it wants to continue to qualify for cash flow hedge accounting. A pattern of missed forecasts would call into question the ability of the entity to accurately predict forecasted transactions and the propriety of using hedge accounting in the future for similar forecasted transactions.²⁰⁶ A pattern of missed forecasts has been interpreted in practice to mean as few as three missed forecasts (i.e., three separately hedged forecasted cash flows that were later deemed probable to not occur), often referred to as three strikes. While two incorrect cash flow forecasts may not constitute a pattern, the second incorrect forecast (strike) should cause the entity to challenge its forecasts for existing and new similar hedging relationships and to possibly reduce hedge ratios (i.e., hedged percentage of forecast) for existing and new similar hedging relationships.

²⁰⁵ Under ASC 815, the assessment of whether it is probable that a forecasted transaction will occur cannot be based solely on management's intent because intent is not verifiable. Instead, the assessment should be supported by observable facts and circumstances. ASC 815-20-55-24 through 55-25 provide various circumstances that an entity should consider in assessing whether it is probable that a forecasted transaction will occur.

²⁰⁶ In the Twenty-Eighth Annual National Conference on Current SEC Developments on 4-6 December 2000, remarks by E. Michael Pierce, the following was iterated, "The staff will challenge management's previous and future assertions regarding forecasted transactions due to a lack of credibility when registrants display a pattern of determining that hedged forecasted transactions are no longer probable of occurrence. One instance is not a pattern, but a recurrence will quickly raise a red flag that could result in a revision in the accounting for cash flow hedging relationships."

In considering whether an entity has developed a pattern, certain events are easier to overcome than others. For example, disruptions due to natural disasters such as hurricanes that are not expected to recur, would not ordinarily call into question an entity's ability to accurately predict forecasted transactions. Consistent with this view, the FASB staff stated in its question-and-answer document that it would be acceptable for an entity not to consider missed forecasts related to the effects of the COVID-19 pandemic when determining whether it has exhibited a pattern of missed forecasts that would call into question its ability to accurately predict forecasted transactions and the propriety of using cash flow hedge accounting in the future for similar transactions.

It is important to remember that evaluating whether an entity must prospectively cease cash flow hedge accounting because the hedge criteria are no longer met is a completely separate analysis from determining whether derivative gains and losses that have previously been recorded in OCI should be reclassified into earnings. This distinction is illustrated in the following example.

Illustration 6-10: Example of reclass from OCI

Company A enters into a treasury lock derivative to lock in the interest rate on a probable anticipated issuance of fixed-rate long-term debt. As time passes, circumstances change, and the company begins to question whether the issuance of debt is the best way for it to meet its financing needs. It starts to consider other ways to raise capital. At this point, Company A is unsure about how it will raise the capital and has determined that the issuance of debt is no longer probable. Therefore, hedge accounting should be discontinued *prospectively* because the forecasted transaction no longer qualifies as a hedged item. However, because of the company's uncertainty about how to raise the necessary capital, it is still reasonably possible that the debt will be issued.

The company weighs its alternatives and later becomes convinced that an equity offering should be used rather than the issuance of debt. At this point it is probable that the original forecasted transaction will not occur, and any amounts in AOCI related to the previously hedged forecasted issuance of debt should be reclassified into earnings.

Had Company A only decided to delay the debt's issuance or change the nature of the debt to be issued, a portion of the amounts previously recorded in OCI would remain.

6.7.1

Amounts excluded from the assessment of effectiveness under an amortization approach

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Derecognition

Amounts Excluded from the Assessment of Effectiveness under an Amortization Approach

815-30-40-6A

When applying the guidance in paragraph 815-20-25-83A, if the hedged forecasted transaction is probable of not occurring, any amounts remaining in accumulated other comprehensive income related to amounts excluded from the assessment of effectiveness shall be recorded in earnings in the current period. For all other discontinued cash flow hedges, any amounts associated with the excluded component remaining in accumulated other comprehensive income shall be recorded in earnings when the hedged forecasted transaction affects earnings.

Upon discontinuation of the hedging relationship, any remaining amounts in AOCI related to components that were excluded from the assessment of hedge effectiveness are recognized in earnings consistent with the requirements of cash flow hedge accounting. That is, these amounts would be immediately

recorded in earnings only if the forecasted transaction is probable of not occurring in the designated time period plus an additional two months.²⁰⁷ Otherwise, these amounts would remain in AOCI and be recorded in the same income statement line as the earnings effect of the hedged item when the hedged forecasted transaction affects earnings.

The following table illustrates the decision points related to the potential discontinuation of a cash flow hedging relationship and the treatment of both included and excluded components recorded in OCI.

| Likelihood of forecasted transaction occurring within the specified time period | <i>Probable of occurring</i> | <i>Between probable of occurring and probable of not occurring</i> | <i>Probable of not occurring</i> |
|--|--|--|--|
| Accounting treatment for cash flow hedge of forecasted transaction | Cash flow hedge accounting continues Defer change in fair value of derivative (included in the assessment of hedge effectiveness) in OCI Any difference between the change in the fair value of the excluded component and the amounts recognized in earnings under the systematic and rational method continues to be deferred in OCI | Cash flow hedge accounting no longer available Previous gains and losses from derivative (included in the assessment of hedge effectiveness) while transaction was probable remain in AOCI Previous gains and losses related to excluded components remain in AOCI | Cash flow hedge accounting no longer available Any related amount remaining in AOCI (including amounts related to excluded components) should be reclassified to earnings |

6.7.2

Change in hedge designation

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Derecognition

Discontinuing Hedge Accounting

815-30-40-1

An entity shall discontinue prospectively the accounting specified in paragraphs 815-30-35-3 and 815-30-35-38 through 35-41 for an existing hedge if any one of the following occurs:

- c. The entity removes the designation of the **cash flow hedge**.

815-30-40-1A

For the purposes of applying the guidance in paragraph 815-30-40-1, a change in the counterparty to a derivative instrument that has been designated as the hedging instrument in an existing hedging relationship would not, in and of itself, be considered a termination of the derivative instrument.

815-30-40-3

Furthermore, the entity may elect to designate prospectively a new hedging relationship with a different hedging instrument or, in the circumstances described in paragraph 815-30-40-1(a) and 815-30-40-1(c), a different hedged **transaction** or a hedged item if the hedging relationship meets the applicable criteria for a cash flow hedge or a **fair value hedge**.

²⁰⁷ No income statement presentation guidance is provided for amounts reclassified from AOCI due to a missed forecast.

A cash flow hedge may be discontinued as a result of an entity dedesignating the derivative from the hedging relationship (i.e., a voluntary dedesignation). If the derivative is not terminated in this case, it can be redesignated in a different hedging relationship. This flexibility in managing hedging relationships is permitted by ASC 815. Similar to the treatment upon termination of the derivative, the amounts in AOCI are unaffected as long as the forecasted transaction from the original hedging relationship remains reasonably possible of occurring.

Illustration 6-11: Treatment of amounts in AOCI upon dedesignation

On 1 January 20X1, AMG Company issues a variable-rate debt obligation and simultaneously enters into an interest rate swap that is designated as a cash flow hedge of the forecasted interest payments on the debt. Because the critical terms (e.g., notional, repricing dates, index) of the debt and the interest rate swap match, the hedging relationship will be considered perfectly effective. Since the debt pays a variable rate of interest, the interest rate swap will result in AMG Company receiving a variable rate of interest and paying a fixed rate.

Assume that there is an increase in market interest rates applicable to the interest rate swap. As a result, on 1 July 20X1, the fair value of the interest rate swap has increased from zero to \$200,000 and all of the change in fair value is considered to be effective. The following journal entry reflects the change in fair value of the interest rate swap:

| | | |
|----------------------------|------------|------------|
| Interest rate swap (asset) | \$ 200,000 | |
| Other comprehensive income | | \$ 200,000 |

On 2 July 20X1, AMG Company removes the designation of the cash flow hedge and instead designates the interest rate swap as a fair value hedge of a fixed-rate note receivable that was entered into on that date. The note receivable has a principal balance equal to the notional amount of the swap. The risk being hedged is the risk of changes in the fair value of the note receivable due to changes in market interest rates. The swap will then qualify as a fair value hedge of the note receivable from the date the fair value hedge criteria are satisfied. However, since the interest rate swap has a fair value other than zero at the time of its designation, the shortcut method is not available for the new hedge.

The amount recorded in OCI is fixed at the date AMG Company removes the cash flow designation and will be recognized into earnings in the period the forecasted transaction affects earnings. Therefore, the \$200,000 credit in AOCI will be amortized into earnings as a credit to (reduction of) interest expense over the remaining life of the original hedge, provided the variable-rate interest obligations continue to accrue. The fact that AMG Company has elected to utilize the swap in a fair value hedge does not impact how the balance in AOCI is reclassified to earnings.

6.8 Other structures affecting hedge accounting

6.8.1 'Deal contingent' interest rate swaps and associated hedge effectiveness

Many entities that anticipate issuing debt if and only if a proposed business acquisition is successfully consummated have been attracted to a hedging product offered by various investment banks known as a "deal contingent swap." This product, like traditional "rate lock" products, is a forward-starting, interest rate swap designed to "lock in" the forward fixed interest rate associated with the expected future interest payments on the debt, and it effectively removes the uncertainty associated with the movement in long-term interest rates during the weeks and months leading up to the debt issuance – that is, it hedges the changes in rates prior to setting the rate on the debt.

However, this “deal contingent” product is unique in that if the business acquisition (i.e., the deal) is not consummated by a specified date, the swap is effectively canceled as if it had never existed, and neither counterparty owes the other any amount upon termination. Any fair value previously associated with the swap changes to a fair value of zero.

Deal contingent forward-starting interest rate swaps (deal contingent swaps) are attractive to treasurers because economically they provide variable rate protection from interest rate movements between the hedging date and the projected deal date, while not retaining any obligation (or rights) under the swap if something goes awry with the acquisition and the issuance of the debt is no longer necessary. However, despite the attractiveness from an economic point of view, the proposed hedging relationship (hedge of cash flow variability associated with a debt issuance that might happen) does not cleanly fit into the cash flow hedging model of ASC 815, which requires that cash flows be probable of occurring (discussed in chapter 4) before they can qualify as the hedged item in a qualifying hedging relationship.

Because many of the deals that would necessitate the debt issuance may be probable of occurring, depending on the evaluation of the unique facts and circumstances, cash flow hedge accounting may indeed be achievable, but a perfectly effective hedge will never be possible with a deal contingent swap. The presence of the deal contingency in the terms of the swap adds optionality to the swap (which is “paid for” in setting the fixed rate in the swap) that is not present in the hedged probable interest flows of the debt (or the hypothetical derivative that perfectly hedges such cash flows). Therefore, the hedging relationship would not be perfect.

Accordingly, those entities that clear the probability hurdle with respect to the hedged interest cash flows, thus opening the first door to the possibility of hedge accounting, find themselves having to assess whether the deal contingent swap is likely to be highly effective at hedging those interest cash flows (discussed in chapter 4). Many entities pursue this assessment by comparing the deal contingent swap and its terms to a comparable forward-starting swap without a deal contingency feature and its terms.

Achieving cash flow hedge accounting with a deal contingent swap requires the following steps:

- ▶ Determine whether the hedged cash flows that are contingent on debt being issued in association with a proposed business acquisition are probable (ASC 815-20-25-15(b)) throughout the entire period covered by the swap (discussed in chapter 4)
- ▶ Assess whether the deal contingent swap is expected to be highly effective at achieving offsetting cash flows attributable to the hedged risk (e.g., changes in the benchmark interest rate) during the term of the hedge (ASC 815-20-25-75) (discussed in chapter 4)

If hedge accounting is achieved at the outset, the entity must continuously reassess both retrospectively and prospectively whether the hedge has been and is expected to continue to be highly effective.

Are the cash flows associated with the proposed debt issuance probable throughout the entire period covered by the swap?

In most instances, the debt will not be issued unless the business acquisition is consummated. Therefore, the question often boils down to: “Is the deal probable of occurring?” We believe the answer to that question is facts and circumstances dependent. As a result, there is no black-and-white rule that can be used to answer this question. In some cases, the deal will not be probable until all regulatory hurdles have been cleared and shareholder votes have occurred. In other cases, a hedger may have strong evidence that the likelihood of regulator or shareholder objections is quite low. Given that the anticipated issuance of debt for proposed transactions has been hedged in the past, this is not an entirely new concept and would be a necessary consideration whether the hedging instrument was deal contingent or not.

In addition, informal discussions with the SEC staff have indicated that the staff does not view the issue of probability of associated debt cash flows to be subject to any particular “bright line” guidance either. In particular, those informal discussions have indicated that the SEC staff generally do not believe that in all circumstances the acquisition must be consummated before the hedged interest cash flows can be deemed to be probable. Again, we generally believe this to be consistent with past practice in hedging strategies.

Often overlooked by the hedger is the need to assess probability that the interest cash flows will occur over the entire period covered by the swap. Assume the hedger anticipates issuing 10-year fixed-rate debt and the deal contingent swap is designed to hedge interest cash flows for that entire 10-year period. However, if the debt is callable in the fifth year, it may be difficult for the hedger to assert that there will be probable interest cash flows for the entire 10-year period in this instance.

If the hedged cash flows are probable, is the deal contingent swap expected to be a highly effective hedge?

Assessing whether or not the hedge will be highly effective would most likely center on understanding the extent to which the critical terms of the hedging instrument do not match the related terms of the hedged forecasted transaction. The deal contingent swap includes a contingent term that will cause the fair value of the swap to move to zero should the contingency trigger (failure for the deal to be consummated) occur. The investment banker would likely have to adjust the terms of the swap relative to a non-deal-contingent swap in order to compensate the banker for accepting the uncertainty of the contingency. While arguably the investment banker is at no greater risk than the hedger for forward interest rate movements between the hedge date and the projected debt issuance date, we have noted that typically the fixed rate that the hedger would pay under the deal contingent swap is greater than what the hedger would otherwise pay in a plain-vanilla forward-starting swap that has no deal contingent feature. This is in part a result of the banker being able to manage its aggregate swap portfolio for interest rate risk, but requiring additional compensation for a non-market-based risk like the occurrence or nonoccurrence of the expected acquisition in a deal contingent instrument.

Entities would likely want to establish that the deal contingent forward-starting swap, despite its higher pay-fixed rate, would still change in fair value similarly to a regular forward-starting swap with no deal contingency. Other differences in critical terms, such as timing or date differences between the presumed cash flows of the deal contingent swap and the probable cash flows associated with the debt upon issuance, would also have to be considered in whatever assessment method the entity uses.

Entities might select from several methods of assessing the impact of these differences on hedge effectiveness. Most entities use either a dollar-offset approach or a statistical analysis approach based on regression. Under a dollar-offset approach, entities perform a sensitivity analysis, whereby both the deal contingent swap and a hypothetical swap without deal contingent terms are “shocked” for likely ranges of changes of forward interest rates during the period the hedge is expected to be in place. If under all of the likely changes in forward interest rates, the change in fair value of the deal contingent swap is within 80% to 125% of the change in fair value of the plain-vanilla swap, the hedging relationship is deemed to be highly effective prospectively.

The specific method of calculating that dollar-offset must be specified in the hedge designation documentation. Many entities that use regression analysis create data points by simulating the performance of the actual deal contingent swap and the hypothetical swap without deal contingent terms against changes in historical forward interest rate curves. In other words, the regression analysis analyzes the pro forma changes in the fair value of both the deal contingent swap and the plain-vanilla swap over recent historical interest rate periods. (Chapter 4 summarizes the characteristics of a valid and predictive regression analysis.)

Entities that execute the deal contingent swap before they can establish that the cash flows they want to hedge are probable will not be able to use the change-in-variable-cash-flows method (refer to section 6.5.2.1 for discussion of this method) because that method requires that at the inception of the hedge, the fair value of the designated swap must be zero or somewhat near zero. If the deal contingent swap is executed several days or weeks before the hedged cash flows are deemed probable, the swap's fair value will have already changed (i.e., moved away from zero), and the change-in-variable-cash-flows method would be prohibited. In addition, we believe the presence of the embedded contingent option in the swap would make the use of this method inappropriate, because this method ignores the contribution of the fixed-rate leg to the swap's fair value.

In our experience, most entities have elected to use the hypothetical-derivative method (refer to section 6.5.2.2 for discussion of this method) in these situations. The hypothetical derivative would not have a deal contingency term embedded in the instrument, and its cash flows would coincide in terms of amounts and timing with the projected cash flows of the debt. If the hedger's expectations about the timing or amounts of the debt cash flows change, a new hypothetical derivative must be defined in order to assess effectiveness. Each time a new hypothetical derivative is defined, it must reference the original inception date of the hedge so that the terms of the hypothetical derivative can be determined such that it would have had a zero fair value at the inception date.

After establishing the probability of the hedged transaction and the expectation of hedge effectiveness, as well as documenting the hedging relationship in accordance with ASC 815, the regular cash flow model would be applied. The gain or loss on the swap (included in the assessment of hedge effectiveness) would be recorded in OCI and amortized into interest expense as interest expense is incurred under the debt.

Should the proposed transaction no longer be probable of occurring, hedge accounting ceases and all subsequent changes in fair value of the deal contingent swap are reflected in earnings. Should the proposed transaction then become probable of not occurring, the amounts deferred in AOCI would be recorded through earnings, with appropriate disclosures.

6.9 Examples of cash flow hedges

The following examples illustrate the accounting for cash flow hedges:

- ▶ Example 1: Cash flow hedge of variable-rate debt using an interest rate swap (hedging a contractually specified interest rate)
- ▶ Example 2: Cash flow hedge of anticipated issuances (rollovers) of commercial paper using an interest rate swap
- ▶ Example 3: Cash flow hedge of a forecasted purchase using futures contracts
- ▶ Example 4: Cash flow hedging relationship no longer qualifies as highly effective
- ▶ Example 5: Cash flow hedge of a forecasted transaction, but the forecast changes
- ▶ Example 6: Hedging a variable-rate guaranteed investment contract with an interest rate cap (excludes time value from effectiveness assessment)
- ▶ Example 7: Hedging a variable-rate guaranteed investment contract with an interest rate cap (hedge effectiveness based on an option's terminal value)
- ▶ Example 8: Cash flow hedge of variable-rate debt using an interest rate swap under the "simplified hedge accounting approach" (can only be applied by certain private companies)

Additional examples illustrate cash flow hedge accounting in special situations:

- ▶ Example 9: Using a basis swap to hedge the basis difference between a variable-rate asset and a variable-rate liability
- ▶ Example 10: Cash flow hedge of forecasted inventory purchase where a net loss is expected on a future sale of inventory
- ▶ Example 11: Cash flow hedge of inventory sales, but inventory becomes impaired
- ▶ Example 12: Cash flow hedge of forecasted borrowings using a forward-starting interest rate swap but timing changes (illustration of each effectiveness assessment method under ASC 815-30-35-10 through 35-32)

Example 1: *Cash flow hedge of variable-rate debt using an interest rate swap (hedging a contractually specified interest rate)*

On 1 January 20X1, Company A issues a 10-year, \$20,000,000 variable-rate note payable, due 20Y1, at prime plus a spread that varies based on Company A's credit standing. At issuance, the spread is equal to 1%. Interest payment dates and interest rate reset dates occur every 1 January, 1 April, 1 July and 1 October until maturity. The principal is due at maturity. Also on 1 January 20X1, Company A enters into a 10-year interest rate swap with a notional amount of \$10,000,000 from which it will receive periodic payments at the prime rate and make periodic payments at a fixed rate of 9%, with settlement and rate reset dates every 1 January, 1 April, 1 July and 1 October. The fair value of the swap is zero at inception.

On 1 January 20X1, the prime rate is 8%. The entity elects to hedge the variability in the contractually specified prime interest rate on \$10,000,000 of the variable rate debt. This position locks the portion of the interest rate indexed to prime for \$10,000,000 of the note at the 9% swap rate. The documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to eliminate the variability of cash flows in the first interest payments associated with \$10,000,000 of variable-rate debt due to changes in the contractually specified prime interest rate. Changes in the cash flows of the interest rate swap are expected to exactly offset the changes in cash flows (i.e., changes in interest rate payments) attributable to fluctuations in the prime interest rate on the first interest payments associated with \$10,000,000 of variable-rate debt. Based on our current assessment, it is probable that there will be prime-based interest payments on at least the swap notional of debt principal through the maturity of the hedging instrument. We have concluded that the forecasted transaction is probable of occurring (i.e., the loan will not prepay, or in the instance that prepayment was to occur, we would refinance at terms and conditions similar to the outstanding existing debt). This assessment will be updated each quarter. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | \$10,000,000 notional amount, receive-variable (prime) and pay-fixed (9%) interest rate swap, expiring 1 January 20Y1, with settlement and reset dates every 1 January, 1 April, 1 July and 1 October |
| Hedged transactions | Each of the first quarterly variable-rate interest payments associated with \$10,000,000 of the \$20,000,000 prime-based note payable due 1 January 20Y1, with payments and reset dates every 1 January, 1 April, 1 July and 1 October |

| | |
|---|---|
| How hedge effectiveness will be assessed | <p>Hedge effectiveness (both prospective and retrospective) will be assessed by evaluating the cumulative dollar-offset ratio for the actual derivative and the hedged item. This will be done using the change-in-variable-cash-flow method from ASC 815-30-35-16 through 35-24, which compares the present value of the cumulative change in the expected future cash flows of the variable leg of the swap and the present value of the cumulative change in the expected future variable interest payments designated in the hedging relationship.</p> <p>As discussed in ASC 815-30-35-22, because the critical terms of the swap and hedged item coincide (notional amount, interest rate reset dates, interest rate payment dates, maturity/expiration date and underlying index), the hedge is expected to be perfectly effective. As long as these critical terms continue to match, our quarterly effectiveness assessments will consist of confirming and documenting that fact. We will also perform a quarterly evaluation of the continued ability of the counterparty to the swap to honor its obligations under the swap.</p> |
|---|---|

On 1 January 20X1, the debt is recorded at \$20,000,000. No entry is required for the swap on that date because its fair value was zero at inception.

During the first three months of 20X1, the prime rate is 8% and the credit spread on the debt is 1%. Therefore, Company A pays interest totaling 9% or \$450,000 (\$225,000 on the hedged amount) on the debt for the three months. In addition, it receives prime-based payments on the swap totaling \$200,000 and makes the fixed-rate payments on the swap totaling \$225,000. These payments are all recorded as interest expense on the debt and total \$475,000. Of this total, \$250,000 (\$225,000 – \$200,000 + \$225,000) represents the interest expense on the hedged portion of the debt (\$10,000,000) after considering the effect of the swap and results in an effective 10% fixed rate of interest on the hedged portion.

On 31 March 20X1, the relevant market interest rate for a swap based on the prime rate increases from 9% to 11% (such that an at-market swap with identical terms to those remaining on the swap would be priced at a pay-fixed rate of 11%). In addition, the prime rate increases from 8% to 10%. Due to the increase in interest rates, assume that the fair value of the swap increases from zero to \$1,165,000. Based on changes in Company A's credit standing, the spread over the prime interest rate on the debt increased to 1.3%.

Company A would document its periodic (e.g., at least quarterly) assessment of effectiveness by confirming that the terms of the debt and the swap remain unchanged and that the creditworthiness of the counterparty to the swap has not deteriorated. Assuming such circumstances have not arisen, Company A would conclude that the hedging relationship remains perfectly effective. As such, a quantitative dollar-offset test to assess effectiveness is not necessary (because the critical terms of the actual derivative and the hedged item continue to match exactly). However, unlike under the shortcut method, the conclusions described above and the reasoning supporting the conclusions must be formally documented each quarter.

Company A would make the following entries at 31 March 20X1:

| | | |
|---|--------------|--------------|
| Interest expense | \$ 450,000 | |
| Accrued interest payable | | \$ 450,000 |
| To accrue interest expense for one quarter on the \$20,000,000 note payable (9% or prime plus 1%). | | |
| Interest rate swap (asset) | \$ 1,190,000 | |
| Other comprehensive income | | \$ 1,190,000 |
| To record the entire change in fair value of swap, excluding accrued interest (\$1,165,000 – (\$25,000)). | | |
| Interest expense | \$ 25,000 | |
| Accrued swap payment payable | | \$ 25,000 |
| To accrue net interest expense on the swap during the quarter (\$200,000 – \$225,000). | | |

Company A would make the following entries at 1 April 20X1:

| | | |
|------------------------------|-----------|-----------|
| Accrued swap payment payable | \$ 25,000 | |
| Cash | | \$ 25,000 |

To record the settlement of the first quarter net swap payment.

| | | |
|--------------------------|------------|------------|
| Accrued interest payable | \$ 450,000 | |
| Cash | | \$ 450,000 |

To record the settlement of the first quarter interest accrual on the debt.

Alternatively, if a company did not separately account for the accrued net payments on the swap, it would account for the swap based on its fair value or “dirty” price (i.e., including accrued interest) and it would have to separately book a reclassification entry to accrue the net swap payments to interest expense with the offsetting entry to OCI.

Company A would make the following entries (related to the hedging instrument) at 31 March 20X1:

| | | |
|----------------------------|--------------|--------------|
| Interest rate swap (asset) | \$ 1,165,000 | |
| Other comprehensive income | | \$ 1,165,000 |

To recognize the entire change in fair value of the interest rate swap, including accrued interest.

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 25,000 | |
| Other comprehensive income | | \$ 25,000 |

To reclassify AOCI to net income (interest expense). This should be done on an accrual basis during the period as an offset (or supplement) to interest accrued on the hedged debt.

Company A would make the following entry at 1 April 20X1:

| | | |
|----------------------------|-----------|-----------|
| Interest rate swap (asset) | \$ 25,000 | |
| Cash | | \$ 25,000 |

To record the settlement of the first quarter net swap payment.

During the quarter ended 30 June 20X1 (assuming no further changes in interest rates and ignoring changes in fair value due to the passage of time), Company A would make the following entries:

| | | |
|------------------|------------|------------|
| Interest expense | \$ 565,000 | |
| Accrued interest | | \$ 565,000 |

To accrue interest expense for one quarter on the \$20,000,000 note payable (11.3% or prime plus 1.3%).

| | | |
|---------------------------------|-----------|-----------|
| Accrued swap payment receivable | \$ 25,000 | |
| Interest expense | | \$ 25,000 |

To accrue expected receipt from interest rate swap (\$10,000,000 at 1% [10% receive-variable (prime) rate less 9% pay-fixed rate] for one quarter).

Summarizing interest expense with the hedging relationship for the quarter ended 30 June 20X1:

| | |
|--|---------------|
| Non-hedged portion – \$10,000,000 at prime of 10% plus 1.3% (11.3%) for one quarter | \$ 282,500 |
| Hedged portion – \$10,000,000 at 9% for one quarter | 225,000 |
| Unhedged spread above prime on hedged \$10,000,000 for one quarter | <u>32,500</u> |
| Net interest expense from entries above | \$ 540,000 |

Assuming the hedging relationship continues to be highly effective, at 30 June 20X1, and throughout the remaining term of the debt and swap, Company A would continually adjust the swap to its fair value with an offsetting adjustment to OCI. Presuming that fixed interest rates attributable to the swap do not change any more, the entries would decrease both the swap asset and OCI as time passes and the interest and swap payments are made.

Assuming the hedging relationship continues to be perfectly effective and is not discontinued until the debt maturity, there is no need to amortize the amount included in AOCI because its reclassification into income occurs automatically. Specifically, accounting for the cash flows of the swap as adjustments to interest expense each period accomplishes the objectives of ASC 815. However, Company A should characterize such adjustments to interest expense as reclassifications of AOCI for their AOCI presentation requirements. Refer to chapter 8 for the disclosure requirements related to AOCI.

It is important to note, however, that the hedge accounting could be more complex for hedging relationships that are not perfectly effective (e.g., if the swap in this example had a fair value other than zero at hedge inception). Refer to section 6.3.2 for discussion of hedging instruments with a non-zero fair value at hedge inception.

Effect of the hedge on the income statement

The hedge was structured to be perfectly effective, and no circumstances arose subsequent to hedge inception that caused the hedge to be less than perfectly effective. The net effect of the swap causes interest on the \$10,000,000 hedged portion that is based on the prime rate to be fixed at 9% (even though the prime component of the debt's coupon fluctuates). The hedging relationship did not eliminate the variability in cash flows on the hedged \$10,000,000 related to the variable credit spread component of the coupon rate.

Example 2:

Cash flow hedge of anticipated issuances (rollovers) of commercial paper using an interest rate swap

On 1 January 20X1, Company Z issues 90-day, \$10,000,000 fixed-rate commercial paper due 1 April 20X1. It is probable of rolling over for the same 90-day term at least seven times at the beginning of each quarter over a two-year period. Rollover dates occur each 1 January, 1 April, 1 July and 1 October. With each rollover, the commercial paper will bear interest at whatever the market will bear for Company Z 90-day paper. Because of Company Z's strong credit rating relative to its peers, it typically issues commercial paper at a substantial spread below the all-in rate related to other commercial paper issuers. With respect to interest payments it must make under its commercial paper program over the next two years, Company Z is exposed to the risk of changes in market short-term rates as well as changes in its own credit risk.

Also on 1 January 20X1, Company Z enters into a two-year interest rate swap with a notional amount of \$10,000,000 under which it will receive periodic payments at the three-month commercial paper rate reported at page H-15 of a market reporting service established on the interest reset date and pays interest at a fixed rate of 5.85549%. Settlement and interest rate reset dates are every 1 January, 1 April, 1 July and 1 October until expiration. There are no other cash flows associated with the swap. Because the index on which the variable rate of the swap is based (three-month H-15 commercial paper) is a representative index of an aggregation of reported 90-day commercial paper issuances, Company Z cannot assume the hedging relationship will be perfectly effective because Company Z's own commercial paper issuances may not mirror that of the aggregate index.²⁰⁸

²⁰⁸ Note that Company Z could have chosen to use a SOFR OIS swap to hedge the SOFR OIS benchmark component of its interest rate risk associated with the anticipated issuance and rollover of its fixed-rate commercial paper. However, because Company Z has elected to use an H-15 commercial paper-based swap (which is not a recognized benchmark interest rate), it needs to assess hedge effectiveness by comparing the performance of the swap to the overall cash flow variability of the commercial paper program rather than just the variability associated with changes in the benchmark rate.

On 1 January 20X1, Company Z's three-month commercial paper rate is 4.75% and the three-month H-15 commercial paper rate is 5%. Historically, changes in Company Z's commercial paper rates and the three-month H-15 index have been very highly correlated. Company Z's strategy is to reduce its exposure to variable interest rate payments due to fluctuations in commercial paper interest rates. If short-term market interest rates increase during the term of the hedge, the cash *inflows* from the interest rate swap will increase and are expected to be highly effective at offsetting the increase in expected cash *outflows* on the commercial paper program.

However, because Company Z has issued commercial paper at rates unique to its short-term borrowing ability and has entered into a swap with a variable-rate leg based on an aggregate index (H-15 commercial paper), the hedge will not be perfectly effective. The company's formal documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to offset the variability of cash flows due to the rollover of its fixed-rate 90-day commercial paper every quarter for the next two years. Changes in the cash flows of the interest rate swap are expected to be highly effective at offsetting the changes in overall cash flows (i.e., changes in interest rate payments) attributable to fluctuations in market interest rates on the company's commercial paper program. Based on our current assessment, it is probable that the company will be able to continue to rollover its commercial paper (on 90-day terms) through the maturity of the hedging instrument. We have documented and concluded that the forecasted transaction is probable of occurring and this assessment will be updated each quarter. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | \$10,000,000 notional amount, receive-variable (three-month H-15 commercial paper) and pay-fixed (5.85549%) interest rate swap, expiring 1 January 20X3, with settlement every 1 January, 1 April, 1 July and 1 October until expiration |
| Hedged transactions | Each of the anticipated fixed-rate interest payments on the first \$10,000,000 of the company's 90-day commercial paper program and subsequent rollovers in new 90-day paper, each due on the first day of each quarter through 1 January 20X3 |
| How hedge effectiveness will be assessed | Based on prior history, the company's commercial paper interest rates and three-month H-15 commercial paper rates have been highly correlated and are expected to continue to be highly correlated. ²⁰⁹ Company Z will assess the effectiveness (both prospective and retrospective) of the hedge based on a regression analysis of the perfect hypothetical derivative (based on its own commercial paper experience), as described in ASC 815-30-35-25 through 35-29, and the actual derivative (based on H-15 commercial paper interest rates). (Refer to discussion in chapter 4 of the permitted methods for assessing hedge effectiveness, including dollar-offset and regression analysis.) |

Assumptions. Initially, the three-month H-15 commercial paper rate is 5.00% on 1 January 20X1. The H-15 index rate is expected to increase 25 basis points each quarter over the term of the swap. In addition, Company Z's three-month commercial paper rate is 4.75% on 1 January 20X1. Based on Company Z's own projections at that date, Company Z believes its own commercial paper rate is likewise expected to increase 25 basis points each quarter over the term of the debt.

However, as of 31 March 20X1 (three months after inception of the hedging relationship), the H-15 commercial paper forward curve has experienced a parallel shift upward of 50 basis points (for example, three-month rates have increased from 5.00% to 5.50%, while maintaining a 25-basis point quarterly increase over the life of the curve). As such, rates have increased 25 basis points more than expected at inception (for example, three-month rates have increased to 5.50% rather than 5.25% as expected in the

²⁰⁹ As a practical matter for non-perfect hedges, entities should justify why they expect the derivative to qualify as "highly effective" based on prior history and how they will assess effectiveness in the future. Refer to chapter 4 for a detailed discussion of hedge criteria regarding effectiveness.

yield curve at the inception of the hedging relationship – refer to Table 1). In addition, Company Z's own projected commercial paper curve has also had a parallel shift upward as of 31 March 20X1, but by only 47 basis points (for example, three-month rates have increased from 4.75% to 5.22%). As such, rates have increased 22 basis points more than the 25-basis point increase expected at inception.

Despite this change in expectation, the results of Company Z's regression analysis support that the hedge was highly effective for the three months ended 31 March 20X1 and is expected to be highly effective going forward.

The following tables present the calculations of the fair value of the swap at inception (Table 1) and on 31 March 20X1 (Table 2).

| Table 1: Fair value of swap at inception | | | | | | | |
|---|----------------|----------------|-----------------------|------------------------------------|---|------------------------------|-----------------------------|
| Reset date | Cash flow date | Fixed-pay rate | Variable-receive rate | Net settlement rate ²¹⁰ | Quarterly settlement receipt (payment) ²¹¹ | Discount rate ²¹² | Present value of cash flows |
| 1/1/X1 | 3/31/X1 | -5.85549% | 5.00000% | -0.85549% | \$ (21,387) | 5.00000% | \$ (21,123) |
| 4/1/X1 | 6/30/X1 | -5.85549% | 5.25000% | -0.60549% | (15,137) | 5.12493% | (14,757) |
| 7/1/X1 | 9/30/X1 | -5.85549% | 5.50000% | -0.35549% | (8,887) | 5.24980% | (8,546) |
| 10/1/X1 | 12/31/X1 | -5.85549% | 5.75000% | -0.10549% | (2,637) | 5.37463% | (2,500) |
| 1/1/X2 | 3/31/X2 | -5.85549% | 6.00000% | 0.14451% | 3,613 | 5.49941% | 3,374 |
| 4/1/X2 | 6/30/X2 | -5.85549% | 6.25000% | 0.39451% | 9,863 | 5.62414% | 9,070 |
| 7/1/X2 | 9/30/X2 | -5.85549% | 6.50000% | 0.64451% | 16,113 | 5.74882% | 14,581 |
| 10/1/X2 | 12/31/X2 | -5.85549% | 6.75000% | 0.89451% | 22,363 | 5.87345% | <u>19,901</u> |
| Fair Value of Swap at Inception | | | | | | | \$ _____ |

In Table 1, it is important to note that the fair value of the swap is composed of the fair values of each individual future cash flow under the swap.

| Table 2: Fair value of swap on 31 March 20X1 | | | | | | | |
|---|----------------|----------------|-----------------------|---------------------|--|---------------|-----------------------------|
| Reset date | Cash flow date | Fixed-pay rate | Variable-receive rate | Net settlement rate | Quarterly settlement receipt (payment) | Discount rate | Present value of cash flows |
| | 4/1/X1 | -5.85549% | 5.00000% | -0.85549% | \$(21,387) | N/A | \$(21,387) |
| 4/1/X1 | 6/30/X1 | -5.85549% | 5.50000% | -0.35549% | (8,887) | 5.50000% | (8,767) |
| 7/1/X1 | 9/30/X1 | -5.85549% | 5.75000% | -0.10549% | (2,637) | 5.62493% | (2,565) |
| 10/1/X1 | 12/31/X1 | -5.85549% | 6.00000% | 0.14451% | 3,613 | 5.74980% | 3,461 |
| 1/1/X2 | 3/31/X2 | -5.85549% | 6.25000% | 0.39451% | 9,863 | 5.87463% | 9,304 |
| 4/1/X2 | 6/30/X2 | -5.85549% | 6.50000% | 0.64451% | 16,113 | 5.99941% | 14,957 |
| 7/1/X2 | 9/30/X2 | -5.85549% | 6.75000% | 0.89451% | 22,363 | 6.12414% | 20,414 |
| 10/1/X2 | 12/31/X2 | -5.85549% | 7.00000% | 1.14451% | 28,613 | 6.24882% | <u>25,672</u> |
| Fair Value of Swap on 31 March 20X1 | | | | | | | \$ <u>41,089</u> |

²¹⁰ The net settlement rate equals the net of the fixed-pay rate and the variable-receive rate.

²¹¹ The quarterly settlement receipt (payment) is calculated as follows: \$10,000,000 (the notional amount of the swap) × net settlement rate × 3/12 (one quarter).

²¹² The discount rates used are based on the term structure of interest rates (i.e., the structure of interest rates appropriate for discounting cash flows of different maturities). For example, based on rates shown in the above table, an investor would be indifferent between (1) receiving a 5% return on principal during the first period and then reinvesting the entire proceeds (principal and interest) at 5.25% during the second period (\$100 × (1.05) × (1.0525) = \$110.51) or (2) receiving a 5.12493% return on principal over two periods (\$100 × (1.0512493) × (1.0512493) = \$110.51).

On 1 January 20X1, the commercial paper debt is recorded at \$10,000,000. No entry is required for the swap on that date because its fair value is zero at inception.

During the quarter ended 31 March 20X1, Company Z would make the following journal entries:

| | | | |
|----------------------------|----|---------|------------|
| Interest expense | \$ | 118,750 | |
| Accrued interest (or cash) | | | \$ 118,750 |

To accrue interest expense for one quarter on the \$10,000,000 note payable at 4.75% (commercial paper issued on 1/1/X1).

| | | | |
|----------------------------|----|--------|-----------|
| Interest rate swap (asset) | \$ | 41,089 | |
| Other comprehensive income | | | \$ 41,089 |

To record the interest rate swap at fair value and to recognize the entire change in the fair value of the interest rate swap in OCI.

| | | | |
|----------------------------|----|--------|-----------|
| Interest expense | \$ | 21,387 | |
| Other comprehensive income | | | \$ 21,387 |

To accrue the expected payment on the interest rate swap (\$10,000,000 at 0.85549% [5.85549% pay-rate less 5.00000% receive-rate] for one quarter) and reclass an appropriate amount from AOCI because the hedged cash flow has affected earnings.

The following entry would be made when the periodic swap payment was made:

| | | | |
|----------------------------|----|--------|-----------|
| Interest rate swap (asset) | \$ | 21,387 | |
| Cash | | | \$ 21,387 |

To record the cash payment required under the interest rate swap.

How we see it

Note that the above entries include the periodic swap payment “accrual” as a component of the fair value of the interest rate swap. In the example above, this “payable” could be recorded separately as a liability and the interest rate swap asset account increased. Regardless of the approach used to record the fair value of the swap and the related periodic payment/receipt accrual, care must be taken not to accidentally double-count the accrual.

As shown in the journal entry above, because Company Z determined through its regression analysis that the swap continues to be highly effective in offsetting total variability in cash flows related to the company’s rollover commercial paper program, the entire change in fair value of the interest rate swap is recorded in OCI. In each period, the actual accrual on the swap would be reclassified out of AOCI and presented in interest expense (i.e., the same income statement line item where the earnings effect of the hedged item is presented) as the hedged item affects earnings.

For the quarter ended 30 June 20X1, and throughout the remaining term of the commercial paper debt and swap, Company Z would follow the same process illustrated above.

As of 31 March 20X1, the projections for three-month H-15 commercial paper and for Company Z's three-month commercial paper interest expense are as follows:

| 31 March 20X1 projection of interest expense | | | |
|---|---------------------------------|---|-------------------------------|
| | Commercial paper program | Interest rate swap pay (receive) | Total interest expense |
| 1 st quarter 20X1 | \$ 118,750 | \$ 21,387 | \$ 140,137 |
| 2 nd quarter 20X1 | 130,500 | 8,887 | 139,387 |
| 3 rd quarter 20X1 | 136,750 | 2,637 | 139,387 |
| 4 th quarter 20X1 | 143,000 | (3,613) | 139,387 |
| 1 st quarter 20X2 | 149,250 | (9,863) | 139,387 |
| 2 nd quarter 20X2 | 155,500 | (16,113) | 139,387 |
| 3 rd quarter 20X2 | 161,750 | (22,363) | 139,387 |
| 4 th quarter 20X2 | 168,000 | (28,613) | 139,387 |

The quarterly total interest expense is projected to decrease \$750 from the first quarter amount of \$140,137 to \$139,387. This decrease occurred because the difference between three-month H-15 commercial paper and Company Z's three-month commercial paper increased from 25 basis points in the first quarter (5.00% vs. 4.75%) to 28 basis points for every quarter thereafter (5.50% vs. 5.22%, for second quarter, for example). Note that \$750 equals 0.03% times 3/12 times \$10,000,000. Also, as expected, the total interest expense is projected to be fixed, as long as the difference between three-month H-15 commercial paper and Company Z's three-month commercial paper remain constant.

This demonstrates that the future variability in interest expense will only be attributable to changes in the spread between H-15 commercial paper and Company Z's commercial paper interest rates. Since changes in the rates are expected to be highly correlated, this variability should not be significant. The variability reflects the basis risk Company Z has accepted in establishing the hedging relationship and would result in changes to the total amount recorded in interest expense if subsequent changes in the spread between the H-15 commercial paper rate and Company Z's commercial paper interest rates occur. Total interest expense would be affected through the accruals on the commercial paper and the swap. That is, as long as the hedge remains highly effective, the entire change in the fair value of the hedging instrument will initially be reported in AOCI. These amounts are reclassified into earnings as the hedged item affects earnings, based on the actual accrual on the swap.

Effect of the hedge on the income statement

In this example, the swap was "highly effective" at offsetting the variability in the interest cash flows associated with the commercial paper program, but it was not perfectly effective. However, interest expense recognized was substantially fixed. Remaining variability relates only to changes in the difference between the variable-rate indexes (H-15 commercial paper and Company Z's actual commercial paper rates) as of the reset date for the quarter.

Example 3: Cash flow hedge of a forecasted purchase using futures contracts

On 1 January 20X2, Company A, a large airline company, forecasts the purchase of 84 million gallons of jet fuel in six months. Because the company is concerned that the price of jet fuel will increase during the coming months, it enters into 2,000 long June NYMEX heating oil futures contracts (i.e., purchase contracts) on 1 January 20X2. Each futures contract is based on the purchase of 42,000 gallons of heating oil at \$0.4649/gallon on 30 June 20X2 and will settle in cash at maturity. Company A neither pays nor receives a premium as a result of entering into the futures contracts. For purposes of this example, the margin accounts with the clearinghouse have been ignored, and likewise any interest earned/expensed associated with margin receipts/deposits has been ignored. While all of these entries would need to be made by an entity, they are not part of the actual hedge accounting journal entries.

Company A's strategy is to hedge its exposure to adverse changes in the price of jet fuel. If jet fuel prices increase over the next six months, the cash *inflows* from the futures contracts will increase and are expected to substantially offset the increase in expected cash *outflows* on the forecasted purchase. However, because Company A plans to purchase jet fuel and the futures contracts are based on the price of heating oil, the hedge will not be perfectly effective. Company A is accepting the "basis" risk between the two prices, which can affect the amount that will ultimately be reported as fuel expense. When applying hedge accounting, Company A is required to hedge the total purchase price of the jet fuel because the contract to purchase the jet fuel did not explicitly specify a component (e.g., heating oil index) that could be designated as the hedged risk. The company's formal documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to reduce the variability of the cash flows of the forecasted purchase of jet fuel. Changes in the cash flows of the heating oil futures are expected to be highly effective at offsetting changes in the expected cash flows of the forecasted purchase of jet fuel due to changes in its purchase price. Based on our current assessment it is probable that there will be sufficient purchases of jet fuel on at least the total units of the futures contract (i.e., the hedging instrument described below). We have documented and concluded that the forecasted transaction is probable of occurring, and this assessment will be updated each quarter. |
| Date of designation | 1 January 20X2 |
| Hedging instrument | 2,000 long June 20X2 NYMEX heating oil futures contracts at \$0.4649/gallon (42,000 gallons per contract). |
| Hedged transaction | Forecasted purchase of the first 84 million gallons of jet fuel on or after 30 June 20X2, the same date the heating oil futures contracts mature. |
| How hedge effectiveness will be assessed | Based on prior history, changes in the price of heating oil and the price of jet fuel have been highly correlated over six-month periods and are expected to continue to be highly correlated. ²¹³ Regression analysis was used to establish the initial expectation that a hedge of jet fuel price risk using a NYMEX heating oil futures contract will be highly effective. ²¹⁴ On an ongoing basis, hedge effectiveness of the hedge (both retrospective and prospective) will be assessed on a cumulative dollar-offset-basis by comparing the overall changes in the expected cash flows on the heating oil futures contracts with the changes in the expected cash flows on the forecasted jet fuel purchase. Estimates of cash flows for the forecasted purchase of both jet fuel and heating oil will be based on forward prices. The forward price for jet fuel will be updated for the best estimate of the expected purchase date, should it differ from 30 June 20X2. |

²¹³ As a practical matter for non-perfect hedges, entities should justify why they expect the derivative to qualify as "highly effective" based on prior history and how they will assess effectiveness in the future. See chapter 4 for a detailed discussion of hedge criteria regarding effectiveness.

²¹⁴ The airline could have also elected to use regression analysis for its retrospective assessment but did not. Example 4 illustrates a possible consequence of this decision.

The following chart outlines the key assumed facts by relevant date over the term of the hedge:

| Key assumptions for period ended 31 March 20X2 | | |
|---|--------------------------------------|---|
| | 6/30/X2 | 6/30/X2 |
| For the period ended 3/31/X2: | Heating oil futures contracts | Expected cash flows on jet fuel purchase |
| Futures/forward price – end of period (3/31/X2) | \$ 0.4726 | \$ 0.4759 |
| Futures/forward price – beginning of period (1/1/X2) | <u>0.4649</u> | <u>0.4688</u> |
| Change in price per gallon | 0.0077 | 0.0071 |
| Gallons hedged/under contract | x 84,000,000 | x 84,000,000 |
| Change in fair value – gain (loss) | <u>\$ 646,800</u> | |
| Change in expected cash flows – gain (loss) | | <u>\$ (596,400)</u> |

Cumulative dollar-offset ratio: $(\$646,800/596,400) = 108\%$

This is within the 80% to 125% range considered to be highly effective.

| Key assumptions for period ended 30 June 20X2 | | |
|---|--------------------------------------|---|
| | 6/30/X2 | 6/30/X2 |
| For the period ended 6/30/X2: | Heating oil futures contracts | Expected cash flows on jet fuel purchase |
| Spot price (and futures/forward price) at end of period (6/30/X2) | \$ 0.4768 | \$ 0.4810 |
| Futures/forward price at beginning of period (3/31/X2) | <u>0.4726</u> | <u>0.4759</u> |
| Change in price per gallon | 0.0042 | 0.0051 |
| Gallons hedged/under contract | x 84,000,000 | x 84,000,000 |
| Change in fair value – gain (loss) | <u>\$ 352,800</u> | |
| Change in expected cash flows – gain (loss) | | <u>\$ (428,400)</u> |
| Cumulative change in fair value/expected cash flows – gain (loss) | <u>\$ 999,600</u> | <u>\$ (1,024,800)</u> |

Cumulative dollar-offset ratio: $(\$999,600/1,024,800) = 98\%$

This is within the 80% to 125% range considered to be highly effective.

On 31 March 20X2, Company A recognizes the entire change in fair value of the futures contracts²¹⁵ in OCI as a result of the hedging relationship being highly effective for the quarter, as follows:

| | | |
|----------------------------|------------|------------|
| Futures contracts | \$ 646,800 | |
| Other comprehensive income | | \$ 646,800 |

To recognize the entire change in the fair value of the futures contracts in OCI.

On 30 June 20X2, Company A would make the following journal entry as a result of the hedging relationship being highly effective for the quarter:

| | | |
|----------------------------|------------|------------|
| Futures contracts | \$ 352,800 | |
| Other comprehensive income | | \$ 352,800 |

To recognize in OCI the entire change in the fair value of the futures contracts.

²¹⁵ As futures contracts are exchange-traded instruments with ongoing margin requirements, credit risk (of either the exchange or the purchasing entity) is typically deemed to be zero or de minimis. This example does not illustrate the cash flows associated with the daily variation margin requirements for purposes of simplicity.

In addition, on 30 June 20X2, assuming that Company A purchases the jet fuel as anticipated and settles the futures contracts, the following journal entries would be required:

| | | |
|--------------------|---------------|---------------|
| Jet fuel inventory | \$ 40,404,000 | |
| Cash | | \$ 40,404,000 |

To record the purchase of jet fuel at the current price ($\$0.4810/\text{gallon} \times 84,000,000 \text{ gallons}$).

| | | |
|-------------------|------------|------------|
| Cash | \$ 999,600 | |
| Futures contracts | | \$ 999,600 |

To record the settlement of the futures contracts.

The cumulative change in the fair value of the futures contracts reported in AOCI is reclassified into earnings during the period or periods when the jet fuel is utilized. The entire amount reclassified is presented in the same income statement line item as the earnings effect of the jet fuel. Assuming all of the jet fuel is used in the subsequent period, the following entry would be made during the quarter ended 30 September 20X2:

| | | |
|----------------------------|---------------|---------------|
| Aircraft fuel expense | \$ 39,404,400 | |
| Other comprehensive income | 999,600 | |
| Jet fuel inventory | | \$ 40,404,000 |

To record the utilization of the jet fuel inventory and to reclassify the related hedge amount deferred in AOCI into earnings as an offset to jet fuel expense.

Effect of the hedge on the income statement

The effect of the hedge on the income statement was to reduce jet fuel expense by \$999,600, the change in the fair value of the futures contracts. The \$39,404,400 total jet fuel expense recognized in earnings represents a \$0.4691 net price per gallon for the jet fuel ($\$39,404,400/84,000,000$), rather than the \$0.4810/gallon actual spot price at 30 June 20X2.

Company A offsets \$999,600 of the increase in the purchase price of jet fuel by entering into heating oil futures contracts. However, the heating oil futures contracts were not perfectly effective at offsetting the changes in cash flows on the forecasted purchase, since the price of jet fuel increased by a total of \$1,024,800 from 1 January 20X2 to 30 June 20X2 (as shown by the increase in the jet fuel forward price). The \$0.4691 price per gallon recognized as aircraft fuel expense is equal to the \$0.4688/gallon forward price for jet fuel on 1 January 20X2, adjusted for the \$0.0003/gallon increase in the price of jet fuel that was not offset during the six-month period by the change in value of the heating oil futures contracts ($\$0.0003 = [\$1,024,800 - \$999,600]/84,000,000$). Had the heating oil futures contract been perfectly effective in offsetting changes in the price of jet fuel, the cost of jet fuel would have been \$39,051,600, reflecting the purchase price in the futures contract of \$0.4649/gallon.

While there were no changes to the expected timing of the jet fuel purchase in this example, in practice changes to the timing of a forecasted transaction are not uncommon and would impact the effectiveness of the hedge. At each assessment date, an entity is expected to update their "hedged item" for the then-current best estimate, which in this example would result in updating the forward price (as of the best estimate of delivery) for jet fuel.

Example 4: Cash flow hedging relationship no longer qualifies as highly effective

Assume the same fact pattern as Example 3, except that the price for heating oil on 30 June 20X2, is \$0.4805 per gallon rather than \$0.4768. Thus, the change in fair value of the futures contracts increases \$663,600 during the period (see calculation below) rather than \$352,800, as shown in Example 3.

The change in fair value of the heating oil futures and the change in expected cash flows on the forecasted purchase for the period ended 30 June 20X2, are calculated as follows:

| Key assumptions for period ended 30 June 20X2 | | |
|---|--------------------------------------|---|
| For the period ended 6/30/X2: | Heating oil futures contracts | Expected cash flows on jet fuel purchase |
| Spot price (and futures/forward price) at end of period (6/30/X2) | \$ 0.4805 | \$ 0.4810 |
| Futures/forward price at beginning of period (3/31/X2) | 0.4726 | 0.4759 |
| Change in price per gallon | 0.0079 | 0.0051 |
| Gallons hedged/under contract | x 84,000,000 | x 84,000,000 |
| Change in fair value – gain (loss) | <u>\$ 663,600</u> | |
| Change in expected cash flows – gain (loss) | | <u>\$ (428,400)</u> |
| Cumulative change in fair value/expected cash flows – gain (loss) | <u>\$ 1,310,400</u> | <u>\$ (1,024,800)</u> |

In this situation, the accounting entries are identical to Example 3 for the period ended 31 March 20X2. The changes in the cash flows of the futures contracts are highly effective at offsetting the changes in the expected cash flows on the forecasted purchase during the first three-month period. The cash *inflows* from the heating oil futures contracts increased \$646,800 during the first three-month period, while the expected cash *outflows* on the forecasted purchase increased \$596,400. Thus, the dollar-offset percentage was considered highly effective at 108% (\$646,800/\$596,400).

However, on 30 June 20X2, the hedging relationship no longer qualifies for hedge accounting because the highly effective criterion is no longer met based on Company A's documented method for retrospectively assessing hedge effectiveness. Company A's documented policy is to assess hedge effectiveness every three months using the cumulative dollar-offset method (see ASC 815-20-25-79). Compliance (or noncompliance) with the highly effective criterion using the cumulative dollar-offset method can be calculated as follows:

| Cumulative dollar-offset calculation at 30 June 20X2 | |
|---|--------------|
| Cumulative change in cash flows on the heating oil futures since inception of the hedge (\$646,800 + \$663,600) | \$ 1,310,400 |
| Cumulative change in the expected future cash flows on the forecasted purchase since inception of the hedge (\$596,400 + \$428,400) | (1,024,800) |
| Cumulative dollar-offset percentage since inception of the hedge (\$1,310,400/\$1,024,800) | 128% |

To qualify for hedge accounting, the changes in the cash flows of the derivative must be highly effective in offsetting the changes in the expected future cash flows on the hedged transaction for the risk being hedged. The term *highly effective* is intended to have the same meaning as the notion of *high correlation*. In practice, *high correlation* has been interpreted to mean a dollar-offset ratio range of 80% to 125% (i.e., the change in the cash flows of the derivative must offset at least 80% but not more than 125% of the change in expected cash flows on the hedged transaction).

In this situation, because the cumulative gain on the futures contracts since inception of the hedge offsets 128% of the change in expected cash flows on the forecasted purchase of jet fuel, the hedging relationship is not considered highly effective on a cumulative dollar-offset basis. In this example, Company A's documented policy was to assess hedge effectiveness using the cumulative dollar-offset method, and as such, the derivative did not qualify for hedge accounting for the quarter ended 30 June 20X1.²¹⁶ Thus, after 31 March 20X2, all subsequent changes in fair value of the futures contracts are recognized directly in earnings and no additional amounts are deferred in OCI.²¹⁷

However, the amount already reported in AOCI will remain there until the hedged forecasted transaction affects earnings (i.e., until the hedged purchase of jet fuel is utilized). Company A would record the following journal entries for the period from 31 March 20X2 – the last date on which compliance with the effectiveness criterion was established – to 30 June 20X2:

| | | |
|----------------------|------------|------------|
| Futures contracts | \$ 663,600 | |
| Other income/expense | | \$ 663,600 |

To recognize the entire change in the fair value of the futures contracts in earnings.

| | | |
|--------------------|---------------|---------------|
| Jet fuel inventory | \$ 40,404,000 | |
| Cash | | \$ 40,404,000 |

To record the purchase of jet fuel at the current price (\$0.4810/gallon × 84,000,000 gallons).

| | | |
|-------------------|--------------|--------------|
| Cash | \$ 1,310,400 | |
| Futures contracts | | \$ 1,310,400 |

To record the settlement of the futures contracts.

The amount reported in AOCI related to the change in the fair value of the futures contracts from the period 1 January 20X2 until 31 March 20X2 is reclassified into earnings during the period or periods when the jet fuel is utilized. Assuming the jet fuel is all used in the subsequent period, the following entry would be made during the quarter ended 30 September 20X2:

| | | |
|----------------------------|---------------|---------------|
| Aircraft fuel expense | \$ 39,757,200 | |
| Other comprehensive income | 646,800 | |
| Jet fuel inventory | | \$ 40,404,000 |

To record the utilization of the jet fuel inventory and to reclassify the related hedge amount deferred in AOCI into earnings as an offset to jet fuel expense.

²¹⁶ The method(s) used to assess hedge effectiveness prospectively and retrospectively must be selected and documented at the inception of the hedge and used consistently throughout the hedge period. Consequently, an entity is bound by the results of the method it has selected to assess hedge effectiveness. (Note that an entity may have a different assessment method for the prospective assessment as compared to the retrospective assessment, as long as such methods are selected and documented at the inception of the hedge and used consistently throughout the hedge period). However, at the inception of the hedge, the company could have selected another acceptable method, such as regression analysis, for assessing hedge effectiveness prospectively and retrospectively. Based on regression analysis, the hedging relationship in this example *may have* continued to qualify for ongoing hedge accounting after 31 March 20X2. See chapter 4 for further discussion of this concept.

²¹⁷ The company could try to establish exactly when between 31 March and 30 June 20X2 the hedge was no longer highly effective. However, absent evidence to the contrary, the hedge is presumed to no longer be highly effective after 31 March.

Effect of the hedge on the income statement

Aircraft fuel expense was reduced by only \$646,800 (representing the entire change in fair value of the futures contracts during the first three-month period when the hedging relationship was highly effective), not by the cumulative change in fair value of the futures contracts for its entire term (as illustrated in the previous example), because cash flow hedge accounting was not permitted after 31 March 20X2. In addition, a gain of \$663,600 on the futures contracts was recognized directly in earnings for the period ended 30 June 20X2 (during which Company A did not qualify for hedge accounting).

Example 5: Cash flow hedge of a forecasted transaction, but the forecast changes

Assume the same fact pattern from Example 3, in which on 1 January 20X2, Company A, a large airline company, forecasts the purchase of 84 million gallons of jet fuel in six months. Company A entered into 2,000 long June NYMEX heating oil futures contracts on 1 January 20X2 to hedge its forecasted purchase of jet fuel on 30 June 20X2. Assume on 1 April 20X2, Company A's management determines that it would like to restructure the airline by eliminating unprofitable routes and, in doing so, reduces the number of flights to various cities. Based upon the restructuring of the company's airline operations, it is probable that Company A will only purchase 90% of its originally estimated forecasted jet fuel on 30 June 20X2.

Both at inception of the hedge and for the quarter ended 31 March 20X2, Company A would perform the same assessments and record the same entries that were shown in Example 3.

On the 30 June 20X2, the company must retrospectively assess the effectiveness of the hedging relationship for the second quarter using the originally designated notional of the hedging instruments (84 million gallons) and the current best estimate of the notional of forecasted purchases (90% of 84 million gallons = 75.6 million gallons).

The retrospective assessment for the period ended 30 June 20X2 is as follows:

Key assumptions for period ended 30 June 20X2

| | 6/30/X2 Heating oil futures contracts | 6/30/X2 Expected cash flows on jet fuel purchase |
|---|--|---|
| For the period ended 6/30/X2: | | |
| Spot price (and futures/forward price) at end of period (6/30/X2) | \$ 0.4768 | \$ 0.4810 |
| Futures/forward price at hedge inception (1/1/X2) | <u>0.4649</u> | <u>0.4688</u> |
| Cumulative change in price per gallon | 0.0119 | 0.0122 |
| Gallons hedged/under contract | <u>x 84,000,000</u> | <u>x 75,600,000</u> |
| Cumulative change in fair value/expected cash flows – gain (loss) | <u>\$ 999,600</u> | <u>\$ (922,320)</u> |

Based on the cumulative changes in fair value of the futures contracts and revised forecasted purchases as of 30 June 20X2, the company determines that the hedge was highly effective at 30 June 20X2 as shown in the table below.

Cumulative dollar-offset calculation at 30 June 20X2

| | |
|---|------------|
| Cumulative change in cash flows on the heating oil futures since inception of the hedge | \$ 999,600 |
| Cumulative change in the expected future cash flows on the forecasted purchase since inception of the hedge | (922,320) |
| Cumulative dollar-offset percentage since inception of the hedge | 108.4% |

Accordingly, the change in the fair value of the futures contracts from the period 1 April to 30 June should be deferred in OCI. However, because 8,400,000 gallons of jet fuel are probable of not being purchased, the company must release from OCI to earnings the amount related to changes in the fair value of 200 futures contracts (each representing 42,000 gallons of heating oil per contract) since hedge inception.

The following journal entries reflect recognition of current activity for the quarter ended 30 June 20X2, based upon the revised estimates of management.

On 30 June 20X2, Company A would make the following journal entries:

| | | |
|----------------------------|------------|------------|
| Futures contracts | \$ 352,800 | |
| Other comprehensive income | | \$ 352,800 |

To recognize in OCI the entire change in the fair value of the actual futures contracts (84 million gallons x (3/31/X2 futures price of .4726 less 6/30/X2 futures price of .4768)).

| | | |
|----------------------------|-----------|-----------|
| Other comprehensive income | \$ 99,960 | |
| Other income/expense | | \$ 99,960 |

To release from AOCI amounts previously deferred on 200 futures contracts that relate to original forecasted purchases of 8.4 million gallons of jet fuel now probable of not occurring (8.4 million gallons x (1/1/X2 futures price of .4649/gallon less 6/30/X2 futures price of .4768/gallon)). ASC 815 does not prescribe a specific income statement line to present reclassified amounts relating to a missed forecasted cash flow. In this case, the company's policy is to present that amount in Other income/expense.

In addition, on 30 June 20X2, assuming that Company A purchases its revised estimate of jet fuel and cash settles the futures contracts, the following journal entries would be required:

| | | |
|--------------------|---------------|---------------|
| Jet fuel inventory | \$ 36,363,600 | |
| Cash | | \$ 36,363,600 |

To record the purchase of jet fuel at the current price (\$0.4810/gallon x 75,600,000 gallons).

| | | |
|-------------------|------------|------------|
| Cash | \$ 999,600 | |
| Futures contracts | | \$ 999,600 |

To record the settlement of all 2,000 futures contracts.

The amount reported in AOCI is reclassified into earnings during the period or periods when the jet fuel is utilized, as shown by the following entry:

| | | |
|----------------------------|---------------|---------------|
| Aircraft fuel expense | \$ 35,463,960 | |
| Other comprehensive income | 899,640 | |
| Jet fuel inventory | | \$ 36,363,600 |

To record the utilization of the jet fuel inventory and to reclassify the related hedge amount deferred in AOCI into earnings as an offset to aircraft fuel expense.

Effect of the hedge on the income statement

The effect of the hedge on the income statement was to reduce aircraft fuel expense by \$899,640. The \$35,463,960 total jet fuel expense recognized in earnings represents a \$0.4691 net price per gallon for the jet fuel (\$35,463,960/75,600,000), rather than the \$0.4810/gallon actual price (i.e., the spot price at 30 June 20X2).

Example 6: Hedging a variable-rate guaranteed investment contract with an interest rate cap (excludes time value from effectiveness assessment)

On 1 January 20X1, ABC Insurance Company has \$50,000,000 of single-premium variable-rate guaranteed investment contracts (GICs) outstanding with its policyholders. GICs are investment products offered by life insurance companies, in which the insurance company collects a single or series of deposits and agrees to repay the principal plus a return at maturity, based upon a predetermined interest rate, interest rate index or other formulaic return. The variable interest rate on the company's GICs is determined on a monthly basis based on the daily average SOFR rate during the month. Based upon the company's risk management philosophy, the company would like to limit its market interest rate risk exposure to rising interest rates over the next six months.

The company has aggregated GICs into a portfolio for hedging purposes and has entered into an out-of-the-money, six-month interest rate cap agreement with a notional amount of \$50,000,000 for an option premium of \$120,000 (which represents the initial time value of the option). The interest rate cap limits the company's cash flow exposure to an increase in the average daily SOFR rate each month above 10% over the next six months. That is, if the average daily SOFR rate exceeds 10% during any month of the contract, the counterparty will pay the company an amount determined by multiplying the excess of average daily SOFR over the cap rate (10%) times the notional amount of the cap (\$50,000,000). The company chooses to exclude changes in the time value of the option from the assessment of hedge effectiveness.

In accordance with the guidance in ASC 815-20-25-83A, the \$120,000 premium will be amortized into earnings over the life of the hedging instrument using a systematic and rational method.²¹⁸ The company believes amortizing the premium over six months using a straight-line approach (i.e., \$20,000 each month) is systematic and rational. Any difference between the change in the fair value of the excluded time value and the amount recognized in earnings under the amortization approach each period will be recognized in OCI.

The pooled GICs mature subsequent to 30 June 20X1 and share the same risk exposure for which they are designated as being hedged. For this example, assume interest is credited in arrears to the GICs based upon the average daily SOFR rate during the month.

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the cash flows through 30 June 20X1 on the designated GICs from adverse extreme market interest rate changes. Changes in the intrinsic value of the option are expected to be perfectly effective in offsetting the changes in cash flow (i.e., changes in interest payments) attributable to fluctuations in the average daily SOFR rate above 10% for each month. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | Six-month interest rate cap on monthly average of daily SOFR with a notional amount of \$50,000,000, based on a strike rate of 10%, payable monthly. The cap was purchased out of the money for \$120,000. |
| Hedged transaction | Forecasted interest payments based on the average daily SOFR rate each month on a portfolio of \$50,000,000 GICs during the six-month period ending 30 June 20X1 |

²¹⁸ The company could have elected to use a mark-to-market approach in accordance with ASC 815-20-25-83B provided that such election is applied consistently to similar hedges in accordance with paragraph 815-20-25-81 and disclosed in accordance with ASC 815-10-50-4E.

| | |
|---|---|
| How hedge effectiveness will be assessed | <p>Changes in the fair value of the cap other than “intrinsic value” (e.g., time value) will be excluded from the assessment of effectiveness and amortized into earnings over the hedging period using a straight-line method. (For simplicity purposes, this example ignores any credit risk associated with the hedging instrument.)</p> <p>Since the terms of the cap and that of the hedged exposure are identical, the effectiveness of the intrinsic value of the cap will be assessed by comparing the terms (e.g., notional, underlying and maturity date) of the cap and the hedged forecasted transaction over the life of the hedging relationship to determine that they remain the same. The intrinsic value of the cap will be determined based on a reference to the forward SOFR interest rate curve and will be presumed to be perfectly effective unless a change in the terms of the instruments occurs. Should the terms no longer match exactly, retrospective hedge effectiveness will be assessed by evaluating the cumulative dollar-offset ratio of the intrinsic value of the actual cap as compared to the intrinsic value of the hypothetically perfect cap. Similarly, should the terms no longer match exactly, subsequent hedge effectiveness will be assessed by evaluating the cumulative dollar-offset ratio of the intrinsic value of the actual cap as compared to the hypothetically perfect cap, using a stress-test/scenario analysis applicable to the change.</p> |
|---|---|

Following are the interest rate, GIC interest crediting, and cap cash flow assumptions used in this example:

| Assumptions | | | | |
|--------------------|--------------------------------|--------------------------|---------------------------------|------------------------------------|
| Period | Average daily SOFR rate | Interest rate cap | Interest credited to GIC | Effect of interest rate cap |
| 1/1/X1 | 8.0% | 10.0% | \$ – | \$ – |
| 1/31/X1 | 8.0% | 10.0% | 333,333 | – |
| 2/28/X1 | 9.0% | 10.0% | 375,000 | – |
| 3/31/X1 | 10.5% | 10.0% | 437,500 | (20,833) |
| 4/30/X1 | 11.0% | 10.0% | 458,333 | (41,667) |
| 5/31/X1 | 11.0% | 10.0% | 458,333 | (41,667) |
| 6/30/X1 | 9.5% | 10.0% | 395,833 | – |

The fair value of the interest rate cap, as calculated using an option-pricing model, is as follows:

| Fair value amounts | | | | |
|---------------------------|-----------------------------|--|---|-----------------------------|
| Period | Fair value of option | Intrinsic value of option²¹⁹ | Time value of option²²⁰ | Change in time value |
| 1/1/X1 | \$ 120,000 | \$ – | \$ 120,000 | \$ – |
| 1/31/X1 | 102,000 | – | 102,000 | (18,000) |
| 2/28/X1 | 82,000 | – | 82,000 | (20,000) |
| 3/31/X1 | 166,000 | 100,000 | 66,000 | (16,000) |
| 4/30/X1 | 125,000 | 80,000 | 45,000 | (21,000) |
| 5/31/X1 | 73,000 | 50,000 | 23,000 | (22,000) |
| 6/30/X1 | – | – | – | (23,000) |

²¹⁹ The intrinsic value of the option in this example represents an estimate of the present value of all expected payments that will be required based on the forward SOFR curve.

²²⁰ The time value of the option is defined in this example as the difference between the fair value of the option and the intrinsic value of the option.

The following are journal entries made during the period from 1 January 20X1 to 30 June 20X1, associated with the hedging transaction:

On 1 January 20X1:

| | | |
|-------------------|------------|------------|
| Interest rate cap | \$ 120,000 | |
| Cash | | \$ 120,000 |

To record the purchase of the interest rate cap at fair value.

For the month ended 31 January 20X1:

| | | |
|----------------------------|-----------|-----------|
| Other comprehensive income | \$ 18,000 | |
| Interest rate cap | | \$ 18,000 |

To record entire change in the fair value of the option in OCI.

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 20,000 | |
| Other comprehensive income | | \$ 20,000 |

To record amortization of the excluded component in earnings (\$20,000 = \$120,000 / 6 periods). Note that the remaining amount in AOCI is a \$2,000 credit balance reflecting the difference between the change in fair value of the excluded component and amounts recognized in earnings under the amortization method.

| | | |
|------------------|------------|------------|
| Interest expense | \$ 333,333 | |
| GIC liability | | \$ 333,333 |

To record interest credited to the guaranteed investment contracts.

For the month ended 28 February 20X1:

| | | |
|----------------------------|-----------|-----------|
| Other comprehensive income | \$ 20,000 | |
| Interest rate cap | | \$ 20,000 |

To record entire change in the fair value of the option in OCI.

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 20,000 | |
| Other comprehensive income | | \$ 20,000 |

To record amortization of the excluded component in earnings.

| | | |
|------------------|------------|------------|
| Interest expense | \$ 375,000 | |
| GIC liability | | \$ 375,000 |

To record interest credited to the guaranteed investment contracts.

For the month ended 31 March 20X1:

| | | |
|----------------------------|-----------|-----------|
| Interest rate cap | \$ 84,000 | |
| Other comprehensive income | | \$ 84,000 |

To record entire change in the fair value of the option in OCI.

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 20,000 | |
| Other comprehensive income | | \$ 20,000 |

To record amortization of the excluded component in earnings.

| | | | |
|--|----|---------|------------|
| Other comprehensive income | \$ | 20,833 | |
| Interest expense | | | \$ 20,833 |
| To reclassify a portion of intrinsic value to earnings as related to the current period's interest expense. (Note that this journal entry has the effect of reducing interest expense as a result of the option because the hedged forecasted cash flow immediately affects earnings.) | | | |
| Interest expense | \$ | 437,500 | |
| GIC liability | | | \$ 437,500 |
| To record interest credited to the guaranteed investment contracts. | | | |
| On 1 April 20X1: | | | |
| Cash | \$ | 20,833 | |
| Interest rate cap | | | \$ 20,833 |
| To record receipt of the periodic cap payment. | | | |
| For the month ended 30 April 20X1: | | | |
| Other comprehensive income | \$ | 20,167 | |
| Interest rate cap | | | \$ 20,167 |
| To record entire change in the fair value of the option in OCI. | | | |
| Interest expense | \$ | 20,000 | |
| Other comprehensive income | | | \$ 20,000 |
| To record amortization of the excluded component in earnings. | | | |
| Other comprehensive income | \$ | 41,667 | |
| Interest expense | | | \$ 41,667 |
| To reclassify a portion of intrinsic value to earnings as related to the current period's interest expense. | | | |
| Interest expense | \$ | 458,333 | |
| GIC liability | | | \$ 458,333 |
| To record interest credited to the guaranteed investment contracts. | | | |
| On 1 May 20X1: | | | |
| Cash | \$ | 41,667 | |
| Interest rate cap | | | \$ 41,667 |
| To record receipt of the periodic cap payment. | | | |
| For the month ended 31 May 20X1: | | | |
| Other comprehensive income | \$ | 10,333 | |
| Interest rate cap | | | \$ 10,333 |
| To record entire change in the fair value of the option in OCI. | | | |
| Interest expense | \$ | 20,000 | |
| Other comprehensive income | | | \$ 20,000 |
| To record amortization of the excluded component in earnings. | | | |
| Other comprehensive income | \$ | 41,667 | |
| Interest expense | | | \$ 41,667 |
| To reclassify a portion of intrinsic value to earnings as related to the current period's interest expense. | | | |

| | | |
|------------------|------------|------------|
| Interest expense | \$ 458,333 | |
| GIC liability | | \$ 458,333 |

To record interest credited to the guaranteed investment contracts.

On 1 June 20X1:

| | | |
|-------------------|-----------|-----------|
| Cash | \$ 41,667 | |
| Interest rate cap | | \$ 41,667 |

To record receipt of the periodic cap payment.

For the month ended 30 June 20X1:

| | | |
|----------------------------|-----------|-----------|
| Other comprehensive income | \$ 31,333 | |
| Interest rate cap | | \$ 31,333 |

To record entire change in the fair value of the option in OCI.

| | | |
|----------------------------|-----------|-----------|
| Interest expense | \$ 20,000 | |
| Other comprehensive income | | \$ 20,000 |

To record change in value of option attributable to change in value of intrinsic value, coinciding with the expiration of the option, in earnings.

| | | |
|------------------|------------|------------|
| Interest expense | \$ 395,833 | |
| GIC liability | | \$ 395,833 |

To record interest credited to the guaranteed investment contract.

The following table below summaries the journal entries above.

| Summary of journal entries – Dr./Cr.) | | | | | | | |
|--|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| | 1/1/X1 | 1/31/X1 | 2/28/X1 | 3/31/X1 | 4/30/X1 | 5/31/X1 | 6/30/X1 |
| Average SOFR rate | 8% | 8% | 9% | 10.50% | 11.00% | 11.00% | 9.50% |
| Ending Fair Value of Option | | | | | | | |
| Intrinsic value of option | | | | 100,000 | 80,000 | 50,000 | - |
| Time value of option | 120,000 | 102,000 | 82,000 | 66,000 | 45,000 | 23,000 | - |
| Total | 120,000 | 102,000 | 82,000 | 166,000 | 125,000 | 73,000 | - |
| Cash Settlement | | | | | (20,833) | (41,667) | (41,667) |
| OCI | | | | | | | |
| Amortization of excluded component | | (20,000) | (20,000) | (20,000) | (20,000) | (20,000) | (20,000) |
| Change in fair value of option | | 18,000 | 20,000 | (84,000) | 20,167 | 10,333 | 31,333 |
| Reclassification of intrinsic value | | - | - | 20,833 | 41,667 | 41,667 | - |
| Total change in period | - | (2,000) | - | (83,167) | 41,834 | 32,000 | 11,333 |
| OCI Balance | | (2,000) | (2,000) | (85,167) | (43,333) | (11,333) | - |
| Interest Expense | | | | | | | |
| GIC – Interest expense | | 333,333 | 375,000 | 437,500 | 458,333 | 458,333 | 395,833 |
| Amortization of excluded component | | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 | 20,000 |
| Reclassification of intrinsic value | | | | (20,833) | (41,667) | (41,667) | - |
| Total Interest Expense | - | 353,333 | 395,000 | 436,667 | 436,666 | 436,666 | 415,833 |

Effect of the hedge on the income statement

During the periods ending 31 March, April 30 and 31 May 20X1, the interest cap has intrinsic value because the average SOFR rate exceeds 10%. The intrinsic value of the interest rate cap offsets a portion of the interest expense attributable to the GICs. At the inception of the hedge, the changes in the fair value of the interest rate cap due to time value were excluded from the assessment of hedge effectiveness. As a result, the \$120,000 premium paid to acquire the option is amortized into earnings on a systematic and rational basis (\$20,000 per month) with any difference between this amount and the actual change in the fair value of the interest rate cap attributable to time value deferred in OCI. Because the hedge was maintained until the maturity of the option, this difference deferred in OCI ultimately zeroed out (i.e., with respect to time value, only the initial premium paid \$120,000 effects earnings). Net interest expense associated with the GIC liability never exceeds \$436,667 for any given month since this represents the capped interest payment of \$416,667 per month (10%/12 x \$50,000,000) plus the monthly amortization of the option premium paid (\$20,000 per month).

Alternatively, the company could have elected to recognize the change in the fair value of the excluded component currently in earnings in accordance with ASC 815-20-25-83B. This election, which would need to be applied consistently for similar hedges, would likely result in more volatility in earnings. The following table summarizes the journal entries under this election:

| Summary of journal entries – Dr./ (Cr.) | | | | | | | |
|---|----------------|----------------|----------------|-----------------|-----------------|-----------------|-----------------|
| | 1/1/X1 | 1/31/X1 | 2/28/X1 | 3/31/X1 | 4/30/X1 | 5/31/X1 | 6/30/X1 |
| Average SOFR OIS rate | 8% | 8% | 9% | 10.50% | 11.00% | 11.00% | 9.50% |
| Ending Fair Value of Option | | | | | | | |
| Intrinsic value of option | | | | 100,000 | 80,000 | 50,000 | – |
| Time value of option | 120,000 | 102,000 | 82,000 | 66,000 | 45,000 | 23,000 | – |
| Total | 120,000 | 102,000 | 82,000 | 166,000 | 125,000 | 73,000 | – |
| Cash Settlement | | | | | (20,833) | (41,667) | (41,667) |
| OCI | | | | | | | |
| Change in intrinsic value of option | | – | – | (100,000) | (833) | (11,667) | 8,333 |
| Reclassification of intrinsic value | | – | – | 20,833 | 41,667 | 41,667 | – |
| Total change in period | – | – | – | (79,167) | 40,834 | 30,000 | 8,333 |
| OCI Balance | | | | (79,167) | (38,333) | (8,333) | – |
| Interest Expense | | | | | | | |
| GIC – Interest expense | | 333,333 | 375,000 | 437,500 | 458,333 | 458,333 | 395,833 |
| Change in time value of option | | 18,000 | 20,000 | 16,000 | 21,000 | 22,000 | 23,000 |
| Reclassification of intrinsic value | | | | (20,833) | (41,667) | (41,667) | – |
| Total Interest Expense | – | 351,333 | 395,000 | 432,667 | 437,666 | 438,666 | 418,833 |

Example 7: Hedging a variable-rate guaranteed investment contract with an interest rate cap (hedge effectiveness based on an option's terminal value)

Assume all the same facts as in Example 6, except in this case ABC Insurance Company documents the hedge in accordance with the guidance²²¹ on assessing the effectiveness of an option based on its terminal value. Under that guidance, all changes in fair value will be recorded in OCI until the interest related to an individual caplet is credited to the GICs in the appropriate month. The company documents the hedge as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to protect the cash flows through 30 June 20X1 on the designated GICs from adverse extreme market interest rate changes. Changes in the intrinsic value of the option are expected to be perfectly effective in offsetting the changes in cash flow (i.e., changes in interest payments) attributable to fluctuations in the average daily SOFR rate above 10% for each month. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | Six-month interest rate cap on monthly average of daily SOFR with a notional amount of \$50,000,000, based on a strike rate of 10%, payable monthly. The cap was purchased out of the money for \$120,000. |
| Hedged transaction | Forecasted interest payments based on the average daily SOFR rate each month on a portfolio of \$50,000,000 GICs during the six-month period ending 30 June 20X1. |
| How hedge effectiveness will be assessed | The company will assess effectiveness (both prospective and retrospective) of the hedge based on the total changes in the option's cash flows (that is, the assessment will include the hedging instrument's entire change in fair value). Since (1) all the critical terms of the cap completely match the hedged forecasted interest on the GICs, (2) the strike price of the cap matches the specified level beyond which the company's exposure is being hedged (average daily SOFR rate for the month above 10%), (3) each caplet's inflows at expiration completely offset the GIC interest outflows for any increase in the average daily SOFR rate above 10%, and (4) the caplets cannot be exercised prior to the individual contractual maturity dates, the interest rate cap is considered to be perfectly effective, consistent with ASC 815-20-25-129. Effectiveness will be assessed by comparing the terms of the cap and the hedged forecasted GIC interest expense over the life of the hedging relationship to assure they remain the same and evaluating the counterparty's ability to honor its obligations under the cap agreement. Should the terms no longer match exactly, prospective and retrospective hedge effectiveness will be assessed via a cumulative dollar-offset test by comparing the change in fair value of the actual hedging instrument with the change in fair value of a "perfectly effective" hypothetical hedging instrument (that hypothetically perfect instrument having terms that meet the four conditions described above). |

Assume all of the same rates and relationships as in Example 6. The journal entries to recognize interest expense on the GICs would be the same. However, the entries to record the changes in the interest rate cap would be different. ABC Insurance Company must allocate the fair value of the interest rate cap at inception to the six individual monthly caplets that comprise the entire derivative. The changes in each of these caplets must be tracked to determine the amounts to be reclassified from AOCI into earnings each period, as well as to determine the proper amounts for disclosure in the footnotes. The following table details the components of fair value for each caplet at each valuation date and "rolls forward" the cap from period to period, serving as the information source for the journal entries below:

²²¹ ASC 815-20-25-126 through 25-129A, ASC 815-20-55-208 through 55-211, ASC 815-30-35-33 through 35-34, ASC 815-30-35-41B, and ASC 815-30-55-127.

| Components of value in each caplet | | | | | | | |
|---|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | <u>1/1/X1</u> | <u>1/31/X1</u> | <u>2/28/X1</u> | <u>3/31/X1</u> | <u>4/30/X1</u> | <u>5/31/X1</u> | <u>6/30/X1</u> |
| Individual caplets maturing on: | | | | | | | |
| 1/31/X1 | | | | | | | |
| Time Value ²²² | \$ 15,000 | \$ - | | | | | |
| Intrinsic Value ²²³ | - | - | | | | | |
| Total | \$ 15,000 | \$ - | | | | | |
| 2/28/X1 | | | | | | | |
| Time Value | \$ 17,000 | \$ 16,600 | \$ - | | | | |
| Intrinsic Value | - | - | - | | | | |
| Total | \$ 17,000 | \$ 16,600 | \$ - | | | | |
| 3/31/X1 | | | | | | | |
| Time Value | \$ 19,000 | \$ 18,500 | \$ 17,950 | \$ - | | | |
| Intrinsic Value | - | - | - | 20,833 | | | |
| Total | \$ 19,000 | \$ 18,500 | \$ 17,950 | \$ 20,833 | | | |
| 4/30/X1 | | | | | | | |
| Time Value | \$ 21,000 | \$ 20,400 | \$ 19,650 | \$ 20,000 | \$ - | | |
| Intrinsic Value | - | - | - | 40,500 | 41,667 | | |
| Total | \$ 21,000 | \$ 20,400 | \$ 19,650 | \$ 60,500 | \$ 41,667 | | |
| 5/31/X1 | | | | | | | |
| Time Value | \$ 23,000 | \$ 22,300 | \$ 21,350 | \$ 22,000 | \$ 21,500 | \$ - | |
| Intrinsic Value | - | - | - | 29,500 | 31,000 | 41,667 | |
| Total | \$ 23,000 | \$ 22,300 | \$ 21,350 | \$ 51,500 | \$ 52,500 | \$ 41,667 | |
| 6/30/X1 | | | | | | | |
| Time Value | \$ 25,000 | \$ 24,200 | \$ 23,050 | \$ 24,000 | \$ 23,500 | \$ 23,000 | |
| Intrinsic Value | - | - | - | 9,167 | 7,333 | 8,333 | \$ - |
| Total | \$ 25,000 | \$ 24,200 | \$ 23,050 | \$ 33,167 | \$ 30,833 | \$ 31,333 | \$ - |
| Total Cap | | | | | | | |
| Time Value | \$ 120,000 | \$ 102,000 | \$ 82,000 | \$ 66,000 | \$ 45,000 | \$ 23,000 | \$ - |
| Intrinsic Value | - | - | - | 100,000 | 80,000 | 50,000 | - |
| Total | \$ 120,000 | \$ 102,000 | \$ 82,000 | \$ 166,000 | \$ 125,000 | \$ 73,000 | \$ - |

| Rollforward of cap total fair value for month ended: | | | | | | |
|---|----------------|----------------|----------------|----------------|----------------|----------------|
| | <u>1/31/X1</u> | <u>2/28/X1</u> | <u>3/31/X1</u> | <u>4/30/X1</u> | <u>5/31/X1</u> | <u>6/30/X1</u> |
| Rollforward of cap | | | | | | |
| Beginning fair value | \$ 120,000 | \$ 102,000 | \$ 82,000 | \$ 166,000 | \$ 125,000 | \$ 73,000 |
| Change in intrinsic value from cash flow | - | - | - | (20,833) | (41,667) | (41,667) |
| Change in intrinsic value from rate change | - | - | 100,000 | 833 | 11,667 | (8,333) |
| Change in time value | (18,000) | (20,000) | (16,000) | (21,000) | (22,000) | (23,000) |
| Ending fair value | \$ 102,000 | \$ 82,000 | \$ 166,000 | \$ 125,000 | \$ 73,000 | \$ - |

²²² Consistent with Example 6, the time value of the option is defined in this example as the difference between the fair value of the option and the intrinsic value of the option. As such, it includes all components of fair value other than intrinsic value.

²²³ As in Example 6, the intrinsic value of the option has been determined using the forward rates. Chapter 4 discusses another acceptable method in which intrinsic value is determined using the current spot rate compared to the strike rate. Although this is easily calculable, in some cases this method would cause additional volatility and non-intuitive results because "negative time value" can result after comparing the spot intrinsic value to the full fair value.

The journal entries to record the interest credited to the GICs are the same as in Example 6 and are not repeated below. The following are only the journal entries made during the period from 1 January 20X1 to 30 June 20X1, associated with the purchased interest rate cap in the cash flow hedge under this guidance:

On 1 January 20X1:

| | | | |
|-------------------|----|---------|------------|
| Interest rate cap | \$ | 120,000 | |
| Cash | | | \$ 120,000 |

To record the purchase of the interest rate cap at fair value.

For the month ended 31 January 20X1:

| | | | |
|---|----|--------|-----------|
| Other comprehensive income – time value | \$ | 18,000 | |
| Interest rate cap | | | \$ 18,000 |

To record in OCI the change in fair value of the cap attributable to the deterioration of total time value.

| | | | |
|---|----|--------|-----------|
| Interest expense | \$ | 15,000 | |
| Other comprehensive income – time value | | | \$ 15,000 |

To reverse from AOCI the “cost” of the 1/31/X1 caplet represented by the change in time value that was reflected in AOCI.

The balance in OCI is now a debit balance of \$3,000, equal to the change (decrease) in time value of the five remaining caplets.

For the month ended 28 February 20X1:

| | | | |
|---|----|--------|-----------|
| Other comprehensive income – time value | \$ | 20,000 | |
| Interest rate cap | | | \$ 20,000 |

To record in OCI the change in fair value of the cap attributable to the deterioration of total time value.

| | | | |
|---|----|--------|-----------|
| Interest expense | \$ | 17,000 | |
| Other comprehensive income – time value | | | \$ 17,000 |

To reverse from AOCI the “cost” of the 2/28/X1 caplet represented by the change in time value that was reflected in AOCI.

The balance in AOCI is now a debit balance of \$6,000, equal to the cumulative change (decrease) in time value of the four remaining caplets.

For the month ended 31 March 20X1:

| | | | |
|--|----|--------|------------|
| Interest rate cap | \$ | 84,000 | |
| Other comprehensive income – time value | | 16,000 | |
| Other comprehensive income – intrinsic value | | | \$ 100,000 |

To record in OCI the change in fair value of the cap attributable to the deterioration of total time value and increase in intrinsic value.²²⁴

| | | | |
|--|----|--------|----------|
| Other comprehensive income – intrinsic value | \$ | 20,833 | |
| Interest expense | | | \$ 1,833 |
| Other comprehensive income – time value | | | 19,000 |

To reverse from AOCI the “cost” and intrinsic value of the 3/31/X1 caplet represented by the change in value that was reflected in AOCI.

²²⁴ Two entries are shown to OCI to illustrate the time value and intrinsic value components of the bookkeeping. In actuality, a single entry would probably be recorded.

The balance in AOCI is now a credit balance of (\$76,167), equal to a debit \$3,000 for the cumulative change (decrease) in time value of the three remaining caplets offset by a credit (\$79,167) for the cumulative change (increase) in the intrinsic value of the three remaining caplets.

On 1 April 20X1:

| | | | |
|-------------------|----|--------|-----------|
| Cash | \$ | 20,833 | |
| Interest rate cap | | | \$ 20,833 |

To record the receipt of cash for the 3/31/X1 caplet on 1 April 20X1.

For the month ended 30 April 20X1:

| | | | |
|--|----|--------|--------|
| Other comprehensive income – time value | \$ | 21,000 | |
| Other comprehensive income – intrinsic value | | | \$ 833 |
| Interest rate cap | | | 20,167 |

To record in OCI the change in fair value of the cap attributable to the deterioration of total time value and increase in intrinsic value.

| | | | |
|--|----|--------|-----------|
| Other comprehensive income – intrinsic value | \$ | 41,667 | |
| Interest expense | | | \$ 20,667 |
| Other comprehensive income – time value | | | 21,000 |

To reverse from AOCI the “cost” and intrinsic value of the 4/30/X1 caplet represented by the change in value that was reflected in AOCI.

The balance in AOCI is now a credit balance of (\$35,333), equal to a debit \$3,000 for the cumulative change (decrease) in time value of the two remaining caplets offset by a credit (\$38,333) for the cumulative change (increase) in the intrinsic value of the two remaining caplets.

For the month ended 31 May 20X1:

| | | | |
|-------------------|----|--------|-----------|
| Cash | \$ | 41,667 | |
| Interest rate cap | | | \$ 41,667 |

To record the receipt of cash for the 4/30/X1 caplet on 1 May 20X1.

| | | | |
|--|----|--------|-----------|
| Other comprehensive income – time value | \$ | 22,000 | |
| Other comprehensive income – intrinsic value | | | \$ 11,667 |
| Interest rate cap | | | 10,333 |

To record in OCI the change in fair value of the cap attributable to the deterioration of total time value and increase in intrinsic value.

| | | | |
|--|----|--------|-----------|
| Other comprehensive income – intrinsic value | \$ | 41,667 | |
| Interest expense | | | \$ 18,667 |
| Other comprehensive income – time value | | | 23,000 |

To reverse from AOCI the “cost” and intrinsic value of the 5/31/X1 caplet represented by the change in value that was reflected in AOCI.

The balance in AOCI is now a credit balance of (\$6,333), equal to a debit \$2,000 for the cumulative change (decrease) in time value of the remaining caplet offset by a credit (\$8,333) for the cumulative change (increase) in the intrinsic value of the remaining caplet.

For the month ended 30 June 20X1:

| | | | |
|-------------------|----|--------|-----------|
| Cash | \$ | 41,667 | |
| Interest rate cap | | | \$ 41,667 |

To record the receipt of cash for the 5/31/X1 caplet on 1 June 20X1.

| | | | |
|--|----|--------|-----------|
| Other comprehensive income – time value | \$ | 23,000 | |
| Other comprehensive income – intrinsic value | | 8,333 | |
| Interest rate cap | | | \$ 31,333 |

To record in OCI the change in fair value of the cap attributable to the deterioration of total time value and decrease in intrinsic value.

| | | | |
|---|----|--------|-----------|
| Interest expense | \$ | 25,000 | |
| Other comprehensive income – time value | | | \$ 25,000 |

To reverse from AOCI the “cost” of the 6/30/X1 caplet represented by the change in time value that was reflected in AOCI.

The balance in AOCI is now cleared.

Note that there is no cash payment due for the 6/30/X1 caplet on 1 July 20X1 because the caplet is no longer in the money; that is, there is no intrinsic value remaining at the expiration of the interest rate cap. With the recording of the above entries, the carrying value of the interest rate cap is zero as it expires.

| Effect of the hedge on the income statement | | | | |
|---|--|---|-----------------------------------|------------------------------------|
| The table below compares the results of the same hedge under the terminal value approach and the two approaches illustrated in Example 6. | | | | |
| Comparison of results in Example 6 and Example 7 | | | | |
| | Interest expense impact from GICs | Interest expense impact from cap | Total interest expense | Effective interest rate |
| | B | A | A+B | |
| Excluding time value under amortization approach (Example 6) | | | | |
| 1/31/X1 | \$ 333,333 | \$ 20,000 | \$ 353,333 | 8.48% |
| 2/28/X1 | 375,000 | 20,000 | 395,000 | 9.48% |
| 3/31/X1 | 437,500 | (833) | 436,667 | 10.48% |
| 4/30/X1 | 458,333 | (21,667) | 436,666 | 10.48% |
| 5/31/X1 | 458,333 | (21,667) | 436,666 | 10.48% |
| 6/30/X1 | <u>395,833</u> | <u>20,000</u> | <u>415,833</u> | 9.98% |
| | <u>\$ 2,458,332</u> | <u>\$ 15,833</u> | <u>\$ 2,474,165</u> | |
| Excluding time value under mark to market approach (Example 6) | | | | |
| 1/31/X1 | \$ 333,333 | \$ 18,000 | \$ 351,333 | 8.43% |
| 2/28/X1 | 375,000 | 20,000 | 395,000 | 9.48% |
| 3/31/X1 | 437,500 | (4,833) | 432,667 | 10.38% |
| 4/30/X1 | 458,333 | (20,667) | 437,666 | 10.50% |
| 5/31/X1 | 458,333 | (19,667) | 438,666 | 10.53% |
| 6/30/X1 | <u>395,833</u> | <u>23,000</u> | <u>418,833</u> | 10.05% |
| | <u>\$ 2,458,332</u> | <u>\$ 15,833</u> | <u>\$ 2,474,165</u> | |
| Including time value under the terminal value approach | | | | |
| 1/31/X1 | \$ 333,333 | \$ 15,000 | \$ 348,333 | 8.36% |
| 2/28/X1 | 375,000 | 17,000 | 392,000 | 9.41% |
| 3/31/X1 | 437,500 | (1,833) | 435,667 | 10.46% |
| 4/30/X1 | 458,333 | (20,667) | 437,666 | 10.50% |
| 5/31/X1 | 458,333 | (18,667) | 439,666 | 10.55% |
| 6/30/X1 | <u>395,833</u> | <u>25,000</u> | <u>420,833</u> | 10.10% |
| | <u>\$ 2,458,332</u> | <u>\$ 15,833</u> | <u>\$ 2,474,165</u> | |

Note that regardless of the method selected, the ultimate impact on interest expense is an increase of \$15,833 over the life of the hedge, or the initial premium paid of \$120,000 offset by the \$104,167 cash collected for the three caplets that expired in the money.

Example 8: Cash flow hedge of variable-rate debt using an interest rate swap under the “simplified hedge accounting approach” (can be applied only by certain private companies)

On 1 January 20X1, Private Company A enters into a borrowing arrangement with Bank B for a 10-year, \$10,000,000 variable-rate note payable, due 20Y1, where interest is paid based on the three-month Term SOFR rate plus 1%. Interest payment dates and interest rate reset dates occur on 1 January, 1 April, 1 July and 1 October until maturity. The principal is due at maturity. The debt provides the company an option for selecting the interest rate reset index (e.g., SOFR, prime or an “Alternate Base Rate” defined in the debt agreement) and/or the periodic interest rate reset frequency (e.g., overnight, monthly, quarterly, semiannually), sometimes referred to as “you-pick-‘em” debt. Also on 1 January 20X1, the company enters into a 10-year interest rate swap with a notional amount of \$10,000,000 from which it will receive periodic payments at the three-month Term SOFR rate and make periodic payments at a fixed rate of 9%, with settlement and rate reset dates every 1 January, 1 April, 1 July and 1 October. The fair value of the swap is zero at inception.

On 1 January 20X1, three-month Term SOFR is 8%. This position locks the interest rate for the note at 10% (the 9% fixed pay rate of the swap, plus the 1% differential between the variable-rate of the note (three-month Term SOFR plus 1%) and the variable-rate of the swap (three-month Term SOFR)). Private Company A’s financial statements will be available to be issued on 30 April 20X2. The documentation of the hedging relationship under the simplified hedge accounting approach is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to eliminate the variability of cash flows in the interest payments associated with \$10,000,000 of variable-rate debt. Changes in the cash flows of the interest rate swap are expected to exactly offset the changes in the cash flows of the note (i.e., changes in interest rate payments) attributable to fluctuations in the three-month Term SOFR rate. The debt provides the company an option for selecting the interest rate reset index (e.g., SOFR, prime or an “Alternate Base Rate” defined in the debt agreement) and/or the periodic interest rate reset frequency (e.g., overnight, monthly, quarterly, semiannually), sometimes referred to as “you-pick-‘em” debt. The company has elected to pay interest on the debt based on the three-month SOFR interest rate. This is a cash flow hedge of interest rate risk designated under the simplified hedge accounting approach permitted for certain private companies. |
| Date of designation | 1 January 20X1 |
| Hedge documentation completion date | 20 March 20X2 |
| Date first annual financial statements are available to be issued | 30 April 20X2 |
| Hedging instrument | \$10,000,000 notional amount, receive-variable (three-month Term SOFR) and pay-fixed (9%) interest rate swap, expiring 1 January 20Y1, with settlement and reset dates every 1 January, 1 April, 1 July and 1 October. The terms of the swap are considered typical (“plain vanilla”). The company has elected to measure the swap at its settlement value. |
| Hedged transactions | Each of the quarterly variable-rate interest payments associated with \$10,000,000 three-month Term SOFR-based note payable due 1 January 20Y1, or replacement thereof, with payments and reset dates every 1 January, 1 April, 1 July and 1 October |

| | |
|--|---|
| <p>How hedge effectiveness will be assessed</p> | <p>This hedge will be assessed under the simplified hedge accounting approach. Because the terms of the swap and hedged item meet all of the conditions to apply the simplified hedge accounting approach outlined in ASC 815-20-25-137, the hedge is considered perfectly effective. There is no need to periodically assess effectiveness during the term of the hedge as long as the conditions in 815-20-25-137 continue to be met. On an ongoing basis, the company will consider the likelihood of the swap counterparty's compliance with its contractual obligations under the swap in applying the simplified hedge accounting approach. Based on our current assessment, it is probable that there will be Term SOFR based interest payments on at least the swap notional of debt principal through the maturity of the hedging instrument. We have concluded that the forecasted transaction is probable of occurring (i.e., the loan will not prepay or, in the instance that prepayment was to occur, we would refinance at terms and conditions similar to the outstanding existing debt). This assessment will be updated each quarter. However, if there is a change and the conditions in paragraph 815-20-25-137 are no longer met or a counterparty's ability to honor its obligation under the swap changes, the hedging relationship would be dedesignated, and the swap would be remeasured at its fair value.</p> |
|--|---|

Because this hedge qualifies for the simplified hedge accounting approach, the company will continually adjust the swap to its settlement value with an offsetting adjustment to OCI. As interest expense is accrued on the debt, gains or losses on the swap deferred in AOCI are reclassified and reported as an adjustment to interest expense each period. The net effect of the AOCI reclassification causes the company to recognize interest expense on the debt at the fixed rate of 10% (even though the three-month Term SOFR rate plus 1% will fluctuate).

6.10 Other special situations

6.10.1 Situations in which designating a cash flow hedge may be more desirable than the fair value hedge alternative

For a fair value hedge, ASC 815 permits designating oil or gas that has not been produced, unmined mineral ore, agricultural products in process of growing, and similar items as the hedged item. In determining whether such items should be permitted to be designated as the hedged item, the FASB considered: (1) whether the costs capitalized to extract, harvest, or mine those items would qualify as a "recognized" asset (one of the criteria for a fair value hedge), (2) whether the amounts recognized for those items bear a close relationship to their fair values and (3) whether hedge effectiveness could ever be met because, for example, extracting and otherwise turning unproduced oil or gas into a salable product would require significant cost. The unproduced oil or gas thus is a different asset from the product upon which a forward sales contract would be based.

Although the FASB decided to permit fair value hedge accounting if the hedging relationships qualify, the Board noted that it had significant reservations about how the fair value of oil or gas that has not been produced, unmined mineral ore, agricultural products in process of growing, and other similar items would be determined and how the effectiveness of a fair value hedge of such items would be assessed. The FASB noted in the original Statement 133 Basis for Conclusions that these items are not final, salable products. Consequently, a derivative based on a final, salable product has a different basis than the hedged item and may not be highly effective at providing offsetting changes in fair value.

For example, the fair value of wheat in the process of growing is not directly comparable to grown, harvested wheat. Growing wheat is subject to future harvesting and production costs, and subject to physical and climatic conditions that affect its value; but wheat derivatives are based on harvested product in salable condition. Accordingly, it would be more likely that such a derivative would be highly effective at providing offsetting cash flows for the forecasted sale of harvested wheat, for example, as a hedge of the forecasted sale of the final product rather than an item that is still in the process of growing. Therefore, approaching these situations from a cash flow hedge perspective rather than a fair value hedge perspective would be preferable for most entities.

6.10.2 Basis swaps

A basis swap is a derivative instrument that is used to modify the receipts or payments associated with a variable index to another variable index. Basis swaps do not eliminate the variability of cash flows; instead, they change the basis or index of variability. For example, in a financial instrument basis swap, the swap might effectively alter future cash flows from a SOFR basis to a prime rate basis. A commodity basis swap might alter future cash flows to be based off of a regional commodities index rather than a national futures exchange (i.e., NYMEX).

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging–General

Recognition

Hedging Instrument in a Cash Flow Hedge of Basis Risk

815-20-25-50

If a hedging instrument is used to modify the contractually specified interest receipts or payments associated with a recognized financial asset or liability from one variable rate to another variable rate, the hedging instrument shall meet both of the following criteria:

- a. It is a link between both of the following:
 1. An existing designated asset (or group of similar assets) with variable cash flows
 2. An existing designated liability (or group of similar liabilities) with variable cash flows.
- b. It is highly effective at achieving offsetting cash flows.

815-20-25-51

For purposes of paragraph 815-20-25-50, a link exists if both of the following criteria are met:

- a. The basis (that is, the rate index on which the interest rate is based) of one leg of an interest rate swap is the same as the basis of the contractually specified interest receipts for the designated asset.
- b. The basis of the other leg of the swap is the same as the basis of the contractually specified interest payments for the designated liability.

In this situation, the criterion in paragraph 815-20-25-15(a) is applied separately to the designated asset and the designated liability.

Basis swaps used as hedge of partially offsetting forecasted cash flows. ASC 815 permits basis swaps to be accounted for as hedging instruments of recognized financial instruments when the swap cash flows are expected to be highly effective in offsetting the cash flows from a combined asset-liability position in which the asset and liability have different rate bases. To make sure that a basis swap does, in fact, result in offsetting cash flows, ASC 815 also requires that the basis of one leg of the swap be the same as the basis of the identified asset and that the basis of the other leg of the swap be the same as the basis of the identified liability.

For example, a company with variable-rate debt tied to the prime rate could use a swap to modify the interest payments to overnight SOFR only if the entity also owns assets with interest income tied to overnight SOFR.

How we see it

As a result of this provision, many commercial entities that borrow from a bank at the prime rate may not be able to use a basis swap to convert the interest characteristics of the debt to a different variable rate such as SOFR and treat the swap as a hedge for financial reporting purposes.

Example 9: *Using a basis swap to hedge the basis difference between a variable-rate asset and a variable-rate liability*

On 1 January 20X0, Entity A, a non-market making bank,²²⁵ borrowed \$10,000,000 at three-month Term SOFR plus 2.25%. The principal is due at maturity on 1 January 20X5. Interest payments are due at the end of each quarter (31 March, 30 June, 30 September and 31 December) based on the three-month Term SOFR rate in effect on the first day of the quarter. One year later, Company A made a \$10,000,000 investment in a ten-year loan that matures on 1 January 20Y1. The borrower pays interest on the bonds at prime plus 1%. Interest on the bonds is payable by the counterparty at the end of each quarter (31 March, 30 June, 30 September and 31 December) based on the prime rate in effect on the first day of the quarter.

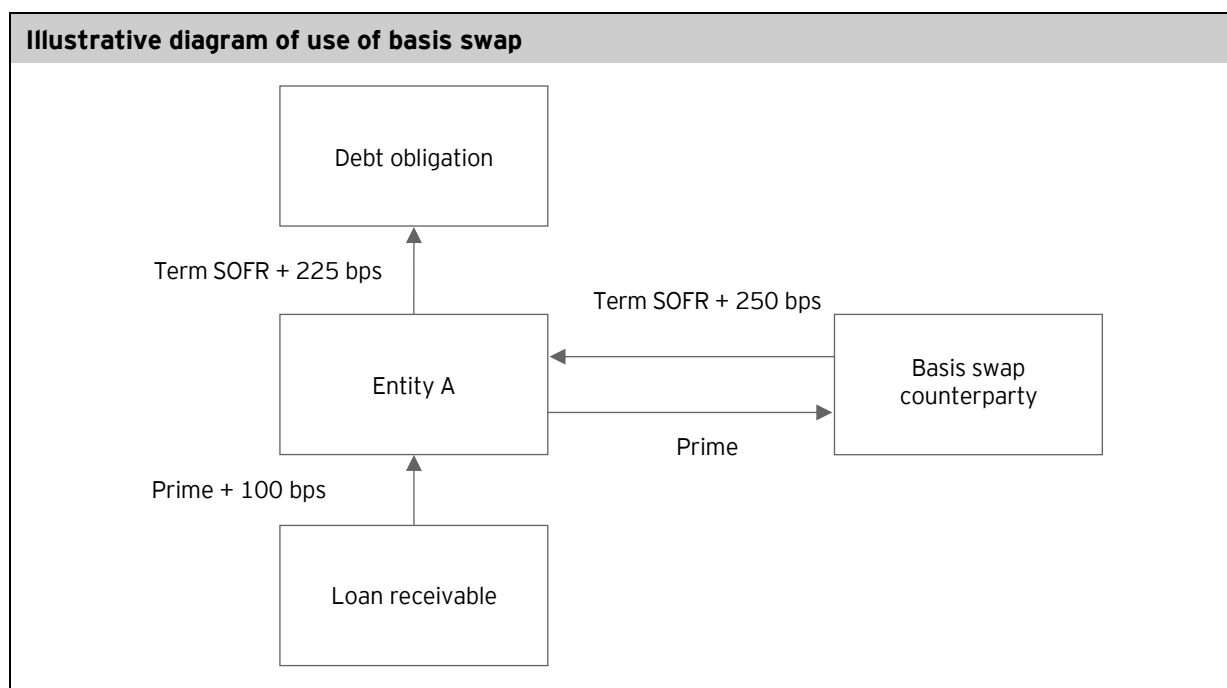
During the year ended 31 December 20X1, Company A used the interest receipts on the loan to help fund the interest payments due on its debt obligation. However, the company was exposed to fluctuations in interest rates during the year to the extent that the prime rate did not move in unison with the Term SOFR. Thus, on 1 January 20X2, Company A enters into a three-year interest rate basis swap to eliminate its basis risk resulting from having an asset based on one variable-rate index and a liability based on a different variable-rate index. Based on the terms of the basis swap, Company A will pay interest at the prime rate and receive interest at the three-month Term SOFR rate plus 250 basis points (250 basis points, or 2.5%, represents the spread between the three-month Term SOFR rate and the prime rate at the inception of the swap). The swap is based on a \$10,000,000 notional amount, and settlement occurs at the end of each quarter (31 March, 30 June, 30 September and 31 December) based on the rates in effect on the first day of each quarter. There is no payment due or received at inception of the swap. The documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to lock in the net interest margin each period by eliminating the basis risk between the contractually specified Term SOFR-based debt obligation and the contractually specified prime-based loan receivable. Changes in the cash flows on the pay leg of the interest rate swap are expected to perfectly offset the changes in the cash flows (i.e., interest received) on the loan receivable due to changes in the prime rate, and changes in the cash flows on the receive leg of the interest rate swap are expected to perfectly offset the changes in the cash flows (i.e., interest paid) on the debt obligation due to changes in Term SOFR. |
| Date of designation | 1 January 20X2 |
| Hedging instrument | \$10,000,000 notional amount, pay-prime/receive Term SOFR interest rate basis swap, expiring 1 January 20X5, with settlement every 31 March, 30 June, 30 September and 31 December based on interest rate indexes in effect on the first day of the quarter |
| Hedged transactions | Each of the next three years' variable-rate quarterly interest receipts on the \$10,000,000 10-year loan receivable maturing 1 January 20Y1, and each of the remaining three years' variable-rate quarterly interest payments on the \$10,000,000 debt obligation due 1 January 20X5 |

²²⁵ In accordance with the ARRC's *Term SOFR Scope of Use Best Practice Recommendations*, because Entity A is a direct party to the Term SOFR debt obligation and is not a market-making dealer of interest rate derivatives, it would be able to obtain a basis swap that references Term SOFR from a dealer.

| | |
|--|--|
| <p>How hedge effectiveness will be assessed</p> | <p>The hedge is structured such that (1) the notional amount of the swap matches the principal amount of the hedged instruments, (2) the interest rate reset dates for the swap and the hedged instruments coincide, (3) the basis of the pay leg of the swap matches the basis of the loan receivable and the basis of the receive leg of the swap matches the basis of the debt, and (4) the basis swap had a fair value of zero at inception. Therefore, consistent with ASC 815-20-35-9 through 35-12 the entity can assume that the hedge will be perfectly effective at offsetting the net cash flows of the combined designated asset. The company will periodically reassess the effectiveness of the hedge to make certain that the forecasted transaction continues to be probable and that the creditworthiness of the counterparty to the swap has not been impaired. Should the critical terms no longer match exactly, hedge effectiveness (both prospective and retrospective) will be assessed by evaluating the cumulative dollar-offset ratio for the actual derivative and the hedged item utilizing the change-in-variable-cash-flow method from ASC 815-30-35-16 through 35-24. The hedge qualifies as a cash flow hedge.</p> |
|--|--|

The following diagram and table illustrate the scenario described in this example and show how the basis swap is used to lock in Company A's net interest margin:



| Calculation of "net effect" from use of basis swap | | |
|---|-------------------------------|------------------------------------|
| | Prime-based cash flows | Term SOFR-based cash flows |
| Debt obligation | – | Pay Term SOFR + 225 bps |
| Loan receivable | Receive prime + 100 bps | – |
| Basis swap | <u>Pay prime</u> | <u>Receive Term SOFR + 250 bps</u> |
| Net effect | <u>Net receive 100 bps</u> | <u>Net receive 25 bps</u> |

As illustrated above, by using the basis swap, Entity A is able to lock in its net interest income margin each year at \$125,000 (\$10,000,000 × 125 basis points [1.25%]), regardless of how the prime rate and three-month Term SOFR rate move in relation to each other.

Basis swap used in combination with another derivative. Basis swaps may also be used in combination with another derivative to reduce basis differences between a hedged exposure and a derivative. For instance, this could be the case in a commodity cash flow hedge where the index is not contractually specified in an agreement and there is a location difference between the index in a derivative and the

hedged transaction. Consider a natural gas producer who uses derivatives based on the NYMEX natural gas futures price to hedge its natural gas production in South Texas. The NYMEX natural gas contract assumes delivery at the Henry Hub, a pipeline location in Louisiana. Sometimes local market conditions in South Texas do not exactly correlate with the changes in the Henry Hub price. In order to achieve a more highly effective hedge, the producer might also want to enter into a basis swap between the Henry Hub price and the Houston Ship Channel price.

Under the terms of the basis swap, if the difference between the Henry Hub price and the Houston Ship Channel price widens, the producer will pay the counterparty to the basis swap the change in the difference (or what is commonly referred to as the change in the “basis”). If the basis gets tighter, the counterparty will pay the producer the difference.

Under ASC 815, these two derivatives can be designated together to hedge the overall change in price risk related to South Texas production. The change in the expected cash flows from the production would be compared against the change in both the NYMEX-based derivative and the change in the basis swap to determine whether the hedging strategy is highly effective. The fact that two derivatives are being used to hedge the same production is not considered “over-hedging.” Provided the combined strategy is highly effective, the combination of derivatives would be eligible for cash flow hedge accounting.

It is important to note that even though the two derivatives may be with different counterparties, they must be combined and evaluated together against the related hedge transaction. Further, it still should not be assumed that this tandem strategy is perfectly effective. The fair value of the producer’s production in South Texas could still not perfectly correlate with the Houston Ship Channel price due to further basis differences, timing differences, etc.

6.10.3 Impairment considerations

ASC 815-30-35-38 provides that a derivative gain or loss recognized in OCI as a hedge of a variable cash flow on a forecasted transaction is to be reclassified into earnings in the same period or periods as the offsetting loss or gain on the hedged item and must be presented in the same income statement line where the earnings effect of the hedged item is presented. For example, a derivative gain that arose from a cash flow hedge of a purchase of equipment used in operations is to be included in earnings in the same periods that depreciation on the equipment is recognized. The net effect on earnings should be the same as if the derivative gain or loss had been included in the basis of the asset or liability to which the hedged forecasted transaction relates.

To be consistent with that provision, ASC 815-30-35-43 requires that a derivative gain be reclassified into earnings when it offsets (1) part or all of an impairment loss or write-off due to credit losses recognized on a related asset, or (2) an additional obligation that is recognized on a related liability.²²⁶ Similarly, under the same guidance, a related derivative loss, if any, in AOCI should be reclassified into earnings in the same period that a recovery of a previous impairment loss is recognized.

The reason that a loss or gain on a hedged asset or liability is recognized in income – for example, whether through an ordinary depreciation charge or an impairment write-down – does not affect the reclassification into earnings of a related offsetting gain or loss in AOCI.

In addition, ASC 815-30-35-40 prohibits continuing to report a loss in AOCI if the entity expects that doing

²²⁶ The FASB staff, through the DIG process, never completed its deliberations over an elaboration on the interpretation of a “related” asset or liability. For example, it is unclear whether a long-lived asset such as a manufacturing plant is related to the forecasted sale of the products it produces. If an impairment loss is recognized on a plant, it is unclear whether any portion of a net derivative gain residing in AOCI related to a hedge of the forecasted sale of product to be manufactured in the plant should be reclassified to earnings to coincide with the impairment loss. (We believe it should not.) However, if the product inventory itself were impaired, it is clear that any derivative net gain residing in AOCI related to a cash flow hedge of the sale of the product should be reclassified to earnings. The impairment of product inventory may also affect the amounts of hedged sales once believed to be probable of occurring. When forecasted volumes change, forecasted transactions may become probable of not occurring.

so would lead to recognizing a net loss on the combined hedging instrument and the hedged transaction in a future period or periods. For example, a loss reported in AOCI on a derivative designated as a hedge of the forecasted purchase of inventory should be recognized in earnings immediately to the extent that the loss is not expected to be recovered through future sales of the inventory (i.e., to the extent that the cost basis of the inventory plus the related loss on the hedging instrument reported in AOCI exceeds the amount expected to be recovered through the future sale of the inventory).²²⁷ It should be noted that the amount that would need to be reclassified from AOCI should not exceed that amount necessary to avoid the recognition of a net loss on the combined hedging instrument and the hedged transaction in a future period.

Example 10: Cash flow hedge of forecasted inventory purchase where a net loss is expected on a future sale of inventory

WidgetCo manufactures a variety of widget products. A principal raw material used in its manufacturing process is kryptonite, whose price can be extremely volatile. On 1 January 20X2, WidgetCo forecasts the purchase of 500 units of kryptonite on 30 June 20X2. Because it is concerned that the price of kryptonite will increase during the coming months, WidgetCo enters into a forward contract on 1 January 20X2, to purchase 500 units of kryptonite on 30 June 20X2, for \$100/unit. (Assume that kryptonite is readily convertible to cash and that a forward contract to purchase kryptonite meets the definition of a derivative.) The forward contract, which has a fair value at inception of zero, contains a net cash settlement provision, and WidgetCo is not certain whether it will actually obtain the required kryptonite through the forward contract or from another supplier. Therefore, the contract is a derivative subject to ASC 815 and does not qualify for the NPNS scope exception.

WidgetCo's formal documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to lock in the cash flows related to the forecasted purchase of kryptonite to be used in the manufacture of widgets. Changes in the cash flows of the forward contract are expected to perfectly offset changes in the expected cash flows of the forecasted purchase due to all changes in the purchase price, as there are no basis differences (grade, location, etc.) and the date and quantity of expected purchase of kryptonite is the same as that of the forward. |
| Date of designation | 1 January 20X2 |
| Hedging instrument | Forward contract to purchase 500 units of kryptonite on 30 June 20X2 for \$100/unit. |
| Hedged transaction | Forecasted purchase of 500 units of kryptonite on 30 June 20X2. |
| How hedge effectiveness will be assessed | Hedge effectiveness (both prospective and retrospective) will be assessed quarterly by evaluating the cumulative dollar-offset ratio for the actual derivative and the hedged item utilizing the hypothetical-derivative method from ASC 815-30-35-25 through 35-30. However, because the critical terms of the forward contract and the hypothetical derivative are the same (i.e., dates, quantities and underlying items, including grade and location) and the fair value of the actual derivative is zero at hedge inception, the hedge is assumed to be perfectly effective at offsetting changes in the expected cash flows of the forecasted transaction, which will also be measured based on changes in the forward price unless the terms change. The company will also confirm quarterly that the forecasted transaction continues to be probable and that the creditworthiness of the counterparty to the forward has not been impaired. |

Assume that the 30 June 20X2 prices for kryptonite by relevant date are as follows:

²²⁷ In this example, no loss in AOCI related to the change in fair value of the hedging instrument would be recorded in earnings prior to the purchased inventory being recorded on the balance sheet. That is, the guidance in ASC 815-30-35-40 and 41 does not require an entity to predict what the cost basis of the inventory is expected to be in the future (i.e., once inventory is recognized).

| 30 June 20X2 assumptions | |
|---------------------------------|-----------------------------------|
| | 30 June 20X2 forward price |
| 1 January 20X2 | \$100 |
| 31 March 20X2 | 70 |

The company would document its quarterly assessment of effectiveness by confirming that the terms of the hypothetical derivative and the forward contract remain unchanged and that the credit standing of the counterparty to the forward contract has not deteriorated. Assuming such circumstances have not arisen, the company would conclude that the actual derivative they hold continues to exactly match their hypothetically perfect derivative. As such, a formal dollar-offset calculation to assess effectiveness is not necessary as by definition the actual derivative and the hypothetical derivative are identical.

At the end of the quarter on 31 March 20X2, WidgetCo would record the following entry (no entry is required on 1 January 20X2 because the fair value of the forward contract is zero at inception):

| | | |
|----------------------------|-----------|-----------|
| Other comprehensive income | \$ 14,775 | |
| Forward contract | | \$ 14,775 |

To recognize the entire change in the fair value²²⁸ of the forward contract in OCI. (The fair value of a forward contract can be estimated by (1) multiplying the change in the forward price since inception of the contract by the notional amount of the contract and (2) discounting that amount at an appropriate rate for the remaining term of the forward. In this example, the calculation is as follows: $\$14,775 = (\$100 - \$70) \times 500$ less a \$225 discount [assumed] until settlement of the forward contract in three months. Because WidgetCo is in a “long” (purchase) position on the forward contract and the purchase price dropped, the forward contract represents a liability to WidgetCo with a fair value of \$14,775.)

The above journal entry may not be the only entry required on 31 March 20X2. There is an additional consideration in the accounting for the cash flow hedge whenever there is a loss reported in AOCI. ASC 815-30-35-40 requires that if an entity expects at any time that the continued reporting of a loss in AOCI would lead to recognizing a net loss on the combination of the derivative and the hedged transaction (and related asset acquired or liability incurred) in one or more future periods, a loss must be reclassified immediately into earnings for the amount that is not expected to be recovered. In this example, a loss must be reported in earnings to the extent that the expected cost basis of the forecasted kryptonite inventory plus the related loss on the forward contract reported in AOCI exceeds the amount expected to be recovered through the future sales of the widgets.

On 31 March 20X2, WidgetCo expects that it will eventually acquire kryptonite at the forward price of \$70 per unit, complete its manufacturing process for a total of 1,000 widgets at a total cost of \$35 per unit (i.e., each widget requires less than a unit of kryptonite to produce). The widgets will then be sold for \$40 per unit for a total of \$40,000. In other words, it expects that it will be required to drop the price of its widgets in response to the decline in price of kryptonite. On that same day, WidgetCo determines that the sum of the cost basis of the inventory plus the related loss reported in AOCI is \$49,775, calculated as follows:

| | |
|---|---------------|
| Cost basis of the inventory (1,000 units at \$35) | \$ 35,000 |
| Plus: Loss on forward contract reported in other comprehensive income | <u>14,775</u> |
| Total | \$ 49,775 |

In this situation, the expected cost basis of the inventory (\$35,000) plus the related amount reported in

²²⁸ As noted in chapter 4, the use of the hypothetical-derivative method of assessing hedge effectiveness is not affected by changes in the creditworthiness of either party to the derivative contract, as long as payment under the derivative contract is still deemed probable for both the company and the counterparty. Accordingly, for simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. See chapter 4 for further discussion.

AOCI (\$14,775) exceeds the amount expected to be recovered through sales of the inventory (\$40,000) by \$9,775. Thus, \$9,775 of the \$14,775 reported in AOCI must be reclassified immediately into earnings.

Accordingly, WidgetCo records the following entry:

| | | | |
|----------------------------|----|-------|----------|
| Cost of goods sold | \$ | 9,775 | |
| Other comprehensive income | | | \$ 9,775 |

To reclassify into earnings the portion of the loss on the forward contract that is not expected to be recovered through sales of the inventory.

Although amounts reported in AOCI are usually reclassified into earnings when the hedged forecasted transaction affects earnings (such as when inventory is sold), the \$9,775 loss in this example was required to be reclassified into earnings even before the inventory was purchased because an impairment loss in the forecasted transaction was apparent.

Effect of the hedge on the income statement

The hedge was structured so that it was perfectly effective (per ASC 815-20-25-84) and no circumstances arose subsequent to hedge inception that caused the hedge to be less than perfectly effective. However, \$9,775 of the unrealized loss on the forward contract was not expected to be recovered through sales of the inventory, so it was reclassified into earnings on 31 March 20X2. The remaining portion of the loss on the forward contract that continues to be reported in AOCI will be reclassified into earnings when the inventory is sold and will be presented in the same income statement line item as the earnings effect of the hedged item. Note that even if the forward prices do not change further, the fair value of the forward contract would change due to the passage of time, and the \$225 discount on the March 31 fair value would eventually be reflected in earnings as additional expense during the second quarter under the same impairment analysis described above.

Example 11: *Cash flow hedge of forecasted inventory sales, but inventory becomes impaired*

Instead of the facts described in Example 10, assume that WidgetCo has 500 widgets on hand at 1 January 20X2. On that date, the widget inventory is carried at cost because the net realizable value of the inventory²²⁹ exceeds its cost basis. To lock in the cash flows from the forecasted sale of the widgets in six months, WidgetCo enters into a derivative contract to sell kryptonite that is designed to be perfectly effective at hedging the changes in the expected cash flows of the widgets due to changes in the sales price. The derivative used in this situation is the opposite of the derivative used in the previous example; that is, it is a derivative contract to *sell* kryptonite at a specified future price and date – rather than to purchase kryptonite – because the widget inventory is already on the books of WidgetCo. WidgetCo properly designates the derivative as a cash flow hedge of the forecasted sale of the 500 widgets.

On 31 March 20X2, assume that the sales price of the widgets declines and the derivative increases \$8,000 in value. WidgetCo would record the following entry:

| | | | |
|-----------------------------|----|-------|----------|
| Derivative contract (asset) | \$ | 8,000 | |
| Other comprehensive income | | | \$ 8,000 |

To recognize the entire change in the fair value of the derivative.

²²⁹ Example assumes inventory measured using a method other than LIFO or the retail inventory method (e.g., FIFO, average cost).

Also on 31 March 20X2, WidgetCo determines that, due to the decline in the sales price of the widgets, the net realizable value of the widget inventory is now \$5,000 less than its cost basis (and current carrying amount). The following journal entry is required to recognize the impairment loss on the inventory so that it is carried in the statement of financial position at the lower of cost and net realizable value:

| | | | |
|--------------------|----|-------|----------|
| Cost of goods sold | \$ | 5,000 | |
| Inventory | | | \$ 5,000 |

To write down the inventory to net realizable value.

In addition, ASC 815 requires that if, under existing US GAAP requirements, an impairment loss is recognized on an asset to which a hedged forecasted transaction relates (as illustrated in this example), any offsetting net gain reported in AOCI related to that transaction is to be reclassified immediately into earnings. This is consistent with the overriding principle that gains and losses recorded in AOCI are to be released into earnings when the hedged transaction affects earnings. Thus, WidgetCo would also make the following entry on 31 March 20X2:

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 5,000 | |
| Cost of goods sold | | | \$ 5,000 |

To reclassify into earnings the portion of the gain on the derivative that offsets the impairment loss on the hedged inventory.

As illustrated in this example, the existing US GAAP requirements for assessing impairment continue to apply under ASC 815. Those impairment requirements must be applied *after* hedge accounting has been applied for the period. In addition, note that the fair value or expected cash flows of the derivative are not considered in the assessment of impairment.

Effect of the hedge on the income statement

The \$5,000 impairment loss on the inventory was recognized in earnings on 31 March 20X2. However, there was no net impact on earnings during the period because an offsetting \$5,000 gain on the derivative that was designated as a hedge of the forecasted sale of the inventory was reclassified into earnings at the same time. The remaining portion of the gain on the derivative that continues to be reported in AOCI will be reclassified into earnings when the inventory is sold.

6.10.4 Forecasted borrowings with timing changes

Example 12: *Cash flow hedge of forecasted variable-rate borrowings using a forward-starting interest rate swap but timing changes (illustration of each effectiveness assessment method under ASC 815-30-35-10 through 35-32)*

Henry's Trucking Company has a revolving credit facility in place through 31 December 20Y2 under which it can borrow up to \$75,000,000 at one-month Term SOFR plus a fixed spread of 1.50%. As of 1 January 20X9, Henry's Trucking has not borrowed against the revolving credit facility, but expects to borrow \$50,000,000 for a four-month period beginning 1 July 20X9, so that they can pay for upgrades to their trucking fleet. To lock in a fixed rate for the expected borrowings from 1 July 20X9 through 31 October 20X9, on 1 January 20X9 the company enters into a \$50,000,000 notional forward-starting pay fixed (1.01%), receive variable (based on one-month Term SOFR) swap with settlement and reset dates the first of every month. The swap is based on the at-the-market six-month forward Term SOFR rate for the four-month period beginning 1 July 20X9. The trade date and effective date of the swap are 1 January 20X9 and 1 July 20X9, respectively. The fair value of the swap is zero at inception.

This position effectively locks in the borrowing rate for \$50,000,000 of expected borrowings at 2.51%²³⁰ for the borrowing period from 1 July 20X9 to 31 October 20X9. The documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to mitigate the risk of changes in the contractually specified one-month Term SOFR interest rate affecting the first four monthly variable-rate interest payments on the first \$50,000,000 of borrowings under the existing SOFR-based revolving credit agreement. Borrowings are expected to begin on 1 July 20X9. Changes in the value of the forward-starting SOFR-based interest rate swap pegged to the four-month period beginning 1 July 20X9 are expected to be highly effective in offsetting the variability associated with the first four monthly interest payments attributable to fluctuations in the one-month forward SOFR rate. |
| Date of designation | 1 January 20X9 |
| Hedging instrument | \$50,000,000 notional amount, receive-variable one-month Term SOFR and pay fixed (1.01%), forward-starting interest rate swap with an effective date of 1 July 20X9 and maturity date of 31 October 20X9. Forward period: 1 January 20X9 to 30 June 20X9. Accruing period: 1 July 20X9 to 31 October 20X9 (four months). Reset and settlement dates will be the first of every month. |
| Hedged transaction | The first four monthly interest payments on the first \$50,000,000 of one-month SOFR-based borrowings on the revolving credit agreement, expected to begin accruing 1 July 20X9, with interest payments on 1 August 20X9 and the first of each month for the following four months |
| How hedge effectiveness will be assessed | Prospective and retrospective hedge effectiveness will be assessed on an ongoing basis using the cumulative dollar-offset method of ASC 815-20-25-79. Cumulative dollar-offsets of between 80% and 125% will be deemed "highly effective." Because the forward-starting interest rate swap is designed with the exact same terms as the hedged risk, the hedge is expected to be perfectly effective as long as the borrowing occurs when forecasted and there is no deterioration in either our credit risk or counterparty credit risk. Credit risk of both parties will be monitored every quarter. If the timing of the borrowing changes, the hedge will no longer be perfectly effective because the four-month period that the borrowings are hedged will no longer exactly coincide with the four-month period from which the fixed Term SOFR swap rate was determined in the hedging instrument. In such cases, when performing the cumulative dollar-offset assessment, we will utilize the change-in-variable-cash-flows method under ASC 815-30-35-16 through 35-24. [Note: This example will also illustrate the hypothetical-derivative method and the change-in-fair-value method provided in ASC 815-30-35-25 through 35-32.] |

²³⁰ Composed of the fixed rate on the pay-leg of the swap (1.01%) plus the fixed spread agreed to on the revolving credit agreement (1.50%).

Market data as of 1 January 20X9 is as follows:

| Table 1: 1 January 20X9 interest rate environment for one-month Term SOFR | | | |
|--|--------------------------------|-----------------------------------|--------------------------------------|
| | Spot rate²³¹ | Forward rate²³² | Discount factor²³³ |
| January | 0.32% | | 0.9997 |
| February | 0.46% | 0.60% | 0.9992 |
| March | 0.47% | 0.49% | 0.9988 |
| April | 0.46% | 0.43% | 0.9985 |
| May | 0.46% | 0.44% | 0.9981 |
| June | 0.48% | 0.61% | 0.9976 |
| July | 0.54% | 0.89% | 0.9969 |
| August | 0.60% | 1.05% | 0.9960 |
| September | 0.65% | 1.02% | 0.9951 |
| October | 0.69% | 1.05% | 0.9943 |
| November | 0.72% | 1.07% | 0.9934 |
| December | 0.76% | 1.16% | 0.9924 |

On 1 January 20X9, no entry was required for the swap because its fair value was zero at inception. The calculation of the fair value of the swap as of 1 January 20X9 is as follows (fixed and floating rates are rounded from three to two decimal places):

| Table 2: 1 January 20X9 calculation of fair value for forward-starting swap (starting 1 July 20X9) | | | | | | |
|---|-------------------|------------|------------|-------------|--|-----------|
| | | Jul | Aug | Sept | Oct | |
| Fixed leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Fixed rate | 1.01% | 1.01% | 1.01% | 1.01% | |
| | Projected payment | (41,903) | (41,903) | (41,903) | (41,903) | |
| | Discount factor | 0.9969 | 0.9960 | 0.9951 | 0.9943 | |
| | PV of payment | (41,771) | (41,735) | (41,700) | (41,663) | (166,869) |
| Floating leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Floating rate | 0.89% | 1.05% | 1.02% | 1.05% | |
| | Projected payment | 36,936 | 43,708 | 42,383 | 43,589 | |
| | Discount factor | 0.9969 | 0.9960 | 0.9951 | 0.9943 | |
| | PV of payment | 36,820 | 43,533 | 42,177 | 43,340 | 165,869 |
| | | | | | Credit Valuation Adjustment ²³⁴ | 1,000 |
| | | | | | Total | <u>0</u> |

²³¹ Spot rate represents the zero-coupon rate for an investment beginning on 1 January 20X9 and ending the last date of the month indicated.

²³² Forward rate represents the one-month forward rate for the month noted.

²³³ Discount rate for the spot rate is calculated as $[1/((1+Spot/12)^{(no. of months)})]$.

²³⁴ Calculation of CVA is beyond the scope of this example, so throughout this example they have been provided as assumption for use herein.

During the first quarter of 20X9, Henry's Trucking Company adjusts the expected timing of their fleet upgrade, such that they now expect to borrow \$50,000,000 beginning 1 August as opposed to 1 July. On 31 March 20X9, the company begins to prepare its periodic (i.e., at least quarterly) assessment of hedge effectiveness by assessing whether the terms of the expected borrowing and the swap remain matched and whether the credit standing of either party to the swap has deteriorated. In doing so, Henry's Trucking notes no credit deterioration but recognizes that the borrowing is now expected to occur at the beginning of August, as opposed to at the beginning of July. As a result, there is a mismatch between the company's actual derivative (the forward-starting swap with an effective date of 1 July 20X9) and the company's hedged item (borrowings with an effective date of 1 August 20X9). The company prepares an effectiveness assessment utilizing the calculation methodology of their selected approach. Market data as of 31 March 20X9 is as follows:

| Table 3: 31 March 20X9 interest rate environment for one-month SOFR | | | |
|--|------------------|---------------------|------------------------|
| | Spot rate | Forward rate | Discount factor |
| April | 0.50% | | 0.9996 |
| May | 0.51% | 0.53% | 0.9991 |
| June | 0.53% | 0.56% | 0.9987 |
| July | 0.56% | 0.65% | 0.9981 |
| August | 0.59% | 0.72% | 0.9975 |
| September | 0.62% | 0.74% | 0.9969 |
| October | 0.64% | 0.78% | 0.9963 |
| November | 0.66% | 0.78% | 0.9956 |
| December | 0.69% | 0.91% | 0.9949 |

As of 31 March 20X9, the fair value of the swap has decreased to a liability of \$45,167 as a result of changes in interest rates. The calculation of the fair value of the swap is as follows:

| Table 4: 31 March 20X9 calculation of fair value for forward-starting swap entered into 1 January (starting 1 July 20X9) | | | | | | |
|---|-------------------|------------|------------|-------------|-----------------------------|-----------|
| | | Jul | Aug | Sept | Oct | |
| Fixed leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Fixed rate | 1.01% | 1.01% | 1.01% | 1.01% | |
| | Projected payment | (41,903) | (41,903) | (41,903) | (41,903) | |
| | Discount factor | 0.9981 | 0.9975 | 0.9969 | 0.9963 | |
| | PV of payment | (41,825) | (41,800) | (41,774) | (41,747) | (167,147) |
| Floating leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Floating rate | 0.65% | 0.72% | 0.74% | 0.78% | |
| | Projected payment | 27,116 | 29,900 | 30,735 | 32,669 | |
| | Discount factor | 0.9981 | 0.9975 | 0.9969 | 0.9963 | |
| | PV of payment | 27,066 | 29,826 | 30,641 | 32,548 | 120,080 |
| | | | | | Credit Valuation Adjustment | 1,900 |
| | | | | | Total | (45,167) |

Change-in-variable-cash-flows method (ASC 815-30-35-16 through 35-24)

When utilizing the change-in-variable-cash-flow method, the assessment of effectiveness involves a comparison of (a) the present value of the cumulative change in the expected future cash flows on the variable leg of the swap and (b) the present value of the cumulative change in the expected future interest cash flows on the floating-rate asset or liability. Henry's Trucking Company prepares their calculation as follows:

| Table 5: Change-in-variable-cash-flow method calculation as of 31 March 20X9 | | | | | | | |
|---|--|------------|------------|------------|------------|--------------------------|----------|
| Variable cash flow expectations – Swap | | | | | | | |
| | Jul | Aug | Sep | Oct | Nov | CVA²³⁵ | |
| As of 1 Jan 20X9 | 36,936 | 43,708 | 42,383 | 43,589 | - | 1,000 | |
| As of 31 Mar 20X9 | 27,116 | 29,900 | 30,735 | 32,669 | - | 1,900 | |
| Change | (9,820) | (13,809) | (11,648) | (10,920) | - | 900 | |
| Discount factor | 0.9981 | 0.9975 | 0.9969 | 0.9963 | 0.9956 | 1.0000 | |
| PV of change | (9,801) | (13,775) | (11,612) | (10,879) | - | 900 | (45,167) |
| Variable cash flow expectations – Hedged item | | | | | | | |
| | Jul | Aug | Sep | Oct | Nov | CVA | |
| As of 1 Jan 20X9 | 36,936 | 43,708 | 42,383 | 43,589 | - | 1,000 | |
| As of 31 Mar 20X9 | | 29,900 | 30,735 | 32,669 | 32,439 | 1,900 | |
| Change | (36,936) | (13,809) | (11,648) | (10,920) | 32,439 | 900 | |
| Discount factor | 0.9981 | 0.9975 | 0.9969 | 0.9963 | 0.9956 | 1.0000 | |
| PV of change | (36,867) | (13,775) | (11,612) | (10,879) | 32,297 | 900 | (39,936) |
| (45,167) | Present value of cumulative change in expected future cash flows on variable leg of swap | | | | | | |
| <u>(39,936)</u> | Present value of cumulative change in expected future cash flows of hedged item | | | | | | |
| 113.1% | Dollar-offset ratio | | | | | | |

In its original hedge documentation, the company elected to use the cumulative dollar-offset ratio to evaluate hedge effectiveness, both prospectively and retrospectively. The company evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception. Furthermore, it evaluates the cumulative dollar-offset ratio to determine whether the hedge is expected to be effective on a prospective basis. Henry's Trucking Company notes that the cumulative dollar-offset ratio is 113.1% and, therefore, concludes that the hedge has been effective retrospectively and is expected to be effective prospectively. Therefore, the entire change in fair value of the swap (\$45,167) is recorded as an offset to OCI and hedge accounting may continue prospectively. The following analysis uses the same fact pattern and economic conditions as described above, but assumes that the company instead elected the hypothetical-derivative method.

²³⁵ As discussed in chapter 4, with regard to this method, ASC 815-30-35-20 provides that "the present value of the cumulative changes in expected future cash flows on both the variable-rate leg of the interest rate swap and the variable-rate asset or liability shall be calculated using the discount rates applicable to determining the fair value of the interest rate swap." As such, if a hedger were using a discount-rate adjustment technique for calculating the fair value of the derivative (inclusive of the CVA), the discount rate utilized for the variable cash flows of the hedged item would be the same as that used for the variable cash flows of the derivative, thereby eliminating the impact of the change in credit risk on the assessment of effectiveness. If a hedger were calculating the CVA by an approach other than a discount-rate adjustment technique, the CVA should affect both legs of the calculation in an exactly offsetting manner, which could be accomplished in the mechanics of the calculation as demonstrated above.

Hypothetical-derivative method (ASC 815-30-35-25 through 35-30)

When utilizing the hypothetical-derivative method for this fact pattern, the assessment of effectiveness would involve a comparison of (a) the cumulative change in the fair value of the actual swap and (b) the cumulative change in the fair value of a “perfect” hypothetical swap. A key component of this analysis is determining the “perfect” hypothetical swap. The hypothetical swap would have terms that identically match the *current* (as of the effectiveness assessment date) best estimate of the critical terms of the floating-rate liability (that is, the same notional amount, same repricing dates, the index on which the hypothetical swap’s variable rate is based matching the index on which the asset or liability’s variable rate is based, mirror image caps and floors, and a zero fair value at the inception of the hedging relationship) but *priced* at the *original inception date* of the hedge. Said more simply, it represents the derivative the company would have used at 1 January 20X9 if it knew then what it knows now (e.g., that it would have interest payments over the period 1 August 20X9 through 30 November 20X9).

The “perfect” hypothetical swap for the company to have entered into on 1 January 20X9 would have been a \$50,000,000 notional forward-starting swap, where the company pays a fixed rate and receives a variable rate (based on one-month Term SOFR) for each of the four months beginning 1 August 20X9. Had the company entered into that swap on 1 January 20X9, the fixed rate it would have had to pay on the swap would have been 1.05%, as this is the rate that would result in the swap having a fair value of zero at the inception of the hedge. This fixed rate differs from the 1.01% fixed rate the company locked in with the actual derivative they executed.

Using the 1 January 20X9 market conditions, the following calculation demonstrates the fair value of the “hypothetically perfect” derivative as of 1 January 20X9:

| Table 6: | | 1 January 20X9 calculation of fair value for hypothetically perfect derivative | | | | |
|---------------------|-------------------|---|-------------|------------|--|-----------|
| | | Aug | Sept | Oct | Nov | |
| Fixed leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Fixed rate | 1.05% | 1.05% | 1.05% | 1.05% | |
| | Projected payment | (43,858) | (43,858) | (43,858) | (43,858) | |
| | Discount rate | 0.9960 | 0.9951 | 0.9943 | 0.9934 | |
| | PV of payment | (43,682) | (43,645) | (43,607) | (43,569) | (174,503) |
| Floating leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Floating rate | 1.05% | 1.02% | 1.05% | 1.07% | |
| | Projected payment | 43,708 | 42,383 | 43,589 | 44,749 | |
| | Discount rate | 0.9960 | 0.9951 | 0.9943 | 0.9934 | |
| | PV of payment | 43,533 | 42,177 | 43,340 | 44,453 | 173,503 |
| | | | | | Credit Valuation Adjustment ²³⁶ | 1,000 |
| | | | | | Total | - |

²³⁶ As discussed in chapter 4, with regard to the hypothetical-derivative method, ASC 815-30-35-29 notes that “the determination of the fair value of both the perfect hypothetical interest rate swap and the actual swap shall use discount rates based on the relevant interest rate swap curves.” This results in the change in credit not affecting the dollar offset calculation under this method. A hedger calculating the CVA using a method other than a discount-rate adjustment technique may accomplish the same effect through the accounting construct of the CVA of the hypothetically perfect derivative equaling the CVA on the actual derivative.

To complete the dollar offset calculation, the company must calculate the fair value of the “hypothetically perfect” derivative as of 31 March 20X9, as shown below:

| Table 7: | | 31 March 20X9 calculation of fair value for hypothetically perfect derivative | | | | |
|---------------------|-------------------|--|-------------|------------|-----------------------------|-----------|
| | | Aug | Sept | Oct | Nov | |
| Fixed leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Fixed rate | 1.05% | 1.05% | 1.05% | 1.05% | |
| | Projected payment | (43,858) | (43,858) | (43,858) | (43,858) | |
| | Discount factor | 0.9975 | 0.9969 | 0.9963 | 0.9956 | |
| | PV of payment | (43,750) | (43,723) | (43,695) | (43,667) | (174,835) |
| Floating leg | Notional | 50,000,000 | 50,000,000 | 50,000,000 | 50,000,000 | |
| | Floating rate | 0.72% | 0.74% | 0.78% | 0.78% | |
| | Projected payment | 29,900 | 30,735 | 32,669 | 32,439 | |
| | Discount factor | 0.9975 | 0.9969 | 0.9963 | 0.9956 | |
| | PV of payment | 29,826 | 30,641 | 32,548 | 32,297 | 125,312 |
| | | | | | Credit Valuation Adjustment | 1,900 |
| | | | | | Total | (47,623) |

Using this data, Henry’s Trucking Company prepares their dollar-offset calculation as follows:

| Table 8: | | Hypothetical-derivative method calculation as of 31 March 20X9 | |
|-----------------|----------|---|--|
| \$ | - | Fair value of actual swap at inception | |
| | (45,167) | Fair value of actual swap at 31 March | |
| \$ | (45,167) | Change in fair value of actual swap | |
| \$ | - | Fair value of hypothetically perfect derivative at inception | |
| | (47,623) | Fair value of hypothetically perfect derivative at 31 March | |
| \$ | (47,623) | Change in fair value of hypothetically perfect derivative | |
| \$ | (45,167) | Change in fair value of actual swap | |
| | (47,623) | Change in fair value of hypothetically perfect derivative | |
| | 94.8% | Dollar-offset ratio | |

In their original hedge documentation, the company elected to use the cumulative dollar-offset ratio to evaluate hedge effectiveness, both prospectively and retrospectively. The company evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception. Furthermore, the company evaluates the cumulative dollar-offset ratio to determine whether the hedge is expected to be effective on a prospective basis. Henry’s Trucking Company notes that the cumulative dollar-offset ratio is 94.8% and, therefore, concludes that the hedge has been effective retrospectively and is expected to be effective prospectively. Therefore, the entire change in fair value of the swap (\$45,167) is recorded as an offset to OCI, and hedge accounting may continue prospectively.

The following analysis uses the same fact pattern and economic conditions as described above but assumes that the company elected the change-in-fair-value method.

Change-in-Fair-Value Method (ASC 815-30-35-31 through 35-32)

When using the change-in-fair-value method in this fact pattern, the assessment of hedge effectiveness involves the comparison of “(a) the present value of the cumulative change in expected variable future interest cash flows that are designated as the hedged transactions and (b) the cumulative change in the fair value of the interest rate swap designated as the hedging instrument.” Based on our experience, the change-in-fair-value method is the method used the least in practice.

How we see it

We understand that there is diversity in practice in the application of the change-in-fair-value method stemming from the conflicting language in ASC 815 before the adoption of ASU 2017-12 about how the change in value of the expected future interest cash flows of the hedged item should be determined. ASC 815-30-35-31 states that an entity should consider the “**present value of the cumulative change** in expected variable future interest cash flows ...” However, the example in ASC 815-30-55-34 through 55-39 illustrates an entity using the “**cumulative change in the present value** of the cash flows of the hedged transaction” in its dollar offset calculation.

While ASU 2017-12 deleted this example as part of its conforming amendments, we do not believe it was the FASB’s intention to change practice as it pertains to the application of the change-in-fair-value method. Before the adoption of ASU 2017-12, these approaches were used to assess and measure hedge ineffectiveness. However, given that ASU 2017-12 eliminated the requirement to separately measure and report hedge ineffectiveness, the change-in-fair-value method is now used solely for the purpose of assessing hedge effectiveness. In our view, ASC 815 is not overly prescriptive about which quantitative methodologies are to be used to assess a hedge’s effectiveness. Instead, ASC 815-20-25-3(b)(2)(iv) notes that “[t]here shall be a reasonable basis for how the entity plans to assess the hedging instrument’s effectiveness.”

Therefore, for purposes of illustration, we demonstrate the application of the change-in-fair-value method using both approaches seen in practice, hereafter referred to as the “most frequently seen approach” (based on the cumulative change in the present value of the cash flows) and the “alternate approach” (based on the present value of the cumulative change in cash flows).

In our view, the “most frequently seen approach” has a stronger financial basis because it uses both the beginning-of-period forward curve and the end-of-period forward curve in determining the change for both the swap and the hedged items. The “alternate approach,” on the other hand, uses both the beginning-of-period forward curve and the end-of-period forward curve in determining the change for the swap, but uses only the end-of-period forward curve in determining the change for the hedged item, an approach that does not compare “apples” to “apples.” For change calculations for both the swap and the hedged item, we believe there is a more sound theoretical basis for consistently using only the end-of-period forward curve (as does the change-in-variable-cash-flows method) or consistently using the beginning-of-period and the end-of-period forward curve (as does the hypothetical-derivative method and the “most frequently seen approach” to the change-in-fair-value method). We question the “mixed” concept of using a different basis of measurement for the change calculation of the hedged item relative to the change calculation for the swap that a literal read of the change-in-fair-value method would call for.

Most frequently seen approach

Using this approach to the change-in-fair-value method, Henry's Trucking Company would prepare its dollar offset calculation as follows:

| Table 9: Change-in-fair-value method calculation as of 31 March 20X9 | | | | | | | |
|---|-----------------|--|------------|------------|------------|------------|--------------------------|
| Fair value of actual swap at inception | | | | | | | |
| Fair value of actual swap at 31 March | | (45,167) | | | | | |
| Change in fair value of actual swap | | (45,167) | | | | | |
| Variable cash flow expectations for hedged item | | | | | | | |
| | | Jul | Aug | Sep | Oct | Nov | CVA²³⁷ |
| As of 1Jan 20X9 | | 36,936 | 43,708 | 42,383 | 43,589 | – | |
| Discount Factor at 1 Jan | | 0.9969 | 0.9960 | 0.9951 | 0.9943 | 0.9934 | |
| PV of Cash Flows at 1 Jan | | 36,820 | 43,533 | 42,177 | 43,340 | – | 1,000 166,869 |
| As of 31Mar 20X9 | | – | 29,900 | 30,735 | 32,669 | 32,439 | |
| Discount Factor at 31 Mar | | 0.9981 | 0.9975 | 0.9969 | 0.9963 | 0.9956 | |
| PV of Cash Flows at 31 Mar | | – | 29,826 | 30,641 | 32,548 | 32,297 | 1,900 <u>127,212</u> |
| Change | | | | | | | (39,657) |
| | (45,167) | Cumulative change in the fair value of the swap designated as hedging instrument | | | | | |
| | <u>(39,657)</u> | Cumulative change in present value of expected variable future cash flows of hedged item | | | | | |
| | 113.9% | Dollar-Offset Ratio | | | | | |

In its original hedge documentation, the company elected to use the cumulative dollar-offset ratio to evaluate hedge effectiveness, both prospectively and retrospectively. The company evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception. Furthermore, the company evaluates the cumulative dollar-offset ratio to determine whether the hedge is expected to be effective on a prospective basis. Henry's Trucking Company notes that the cumulative dollar-offset ratio is 113.9% and, therefore, concludes that the hedge has been effective retrospectively and is expected to be effective prospectively. Therefore, the entire change in fair value of the swap (\$45,167) is recorded as an offset to OCI and hedge accounting may continue prospectively.

The following analysis uses the same fact pattern and economic conditions as described above, but assumes that the company instead elected the alternative approach to the change-in-fair-value method.

²³⁷ As discussed in chapter 4, with regard to change-in-fair-value method, ASC 815-30-35-32 specifically provides that "the discount rates applicable to determining the fair value of the interest rate swap ... shall also be applied to the computation of present values of the cumulative changes in the hedged cash flows." As such, if a hedger were using the "most frequently seen approach" to the change-in-fair-value method and were using a discount-rate adjustment technique for calculating the fair value of the derivative (inclusive of the CVA), the discount rates utilized for the hedged item (both at the beginning of period and end of period) would be the same as that used for the derivative, thereby eliminating the effect of the change in credit risk on the assessment of effectiveness. If a hedger were calculating the CVA by an approach other than a discount-rate adjustment technique, the CVA would affect both legs of the calculation in an exact offsetting manner, which could be accomplished in the mechanics of the calculation as demonstrated above.

Alternate approach

Using the alternative approach to the change-in-fair-value method, Henry's Trucking Company would prepare its dollar offset calculation as follows:

| Table 10: Change-in-fair-value method calculation as of 31 March 20X9 | | | | | | |
|--|--|------------|------------|------------|------------|--------------------------|
| Fair value of actual swap at inception | | | | | | - |
| Fair value of actual swap at 31 March | | | | | | (45,167) |
| Change in fair value of actual swap | | | | | | (45,167) |
| Variable cash flow expectations for hedged item | | | | | | |
| | Jul | Aug | Sep | Oct | Nov | CVA²³⁸ |
| 1 January 20X9 | 36,936 | 43,708 | 42,383 | 43,589 | - | |
| 31 March 20X9 | - | 29,900 | 30,735 | 32,669 | 32,439 | |
| Change | (36,936) | (13,808) | (11,648) | (10,920) | 32,439 | |
| Discount Factor at 31 March | 0.9981 | 0.9975 | 0.9969 | 0.9963 | 0.9956 | |
| PV of Change | (36,867) | (13,775) | (11,612) | (10,879) | 32,297 | (40,836) |
| (45,167) | Cumulative change in the fair value of the swap designated as hedging instrument | | | | | |
| (40,836) | Present value of cumulative change in expected variable future cash flows of hedged item | | | | | |
| 110.6% | Dollar-Offset Ratio | | | | | |

In its original hedge documentation, the company elected to use the cumulative dollar-offset ratio to evaluate hedge effectiveness, both prospectively and retrospectively. The company evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception. Furthermore, the company evaluate the cumulative dollar-offset ratio to determine whether the hedge is expected to be effective on a prospective basis. Henry's Trucking Company notes that the cumulative dollar-offset ratio is 110.6% and, therefore, concludes that the hedge has been effective retrospectively and is expected to be effective prospectively. Therefore, the entire change in fair value of the swap (\$45,167) is recorded as an offset to OCI and hedge accounting may continue prospectively.

Effect of the hedge on the income statement

The change in the timing of expected borrowings between the inception of the hedge (1 January 20X9) and the first quarterly assessment date (31 March 20X9) caused Henry's Trucking Company to hold a derivative that does not exactly match the hedged item. As demonstrated above, the three assessment approaches outlined in ASC 815 result in different degrees of deemed effectiveness based on the different calculation approaches.

²³⁸ As discussed in chapter 4, with regard to the change-in-fair-value method, ASC 815-30-35-32 specifically provides that "the discount rates applicable to determining the fair value of the interest rate swap ... shall also be applied to the computation of present values of the cumulative changes in the hedged cash flows." The alternate approach described above uses *both* the beginning-of-period swap and end-of-period swap curves to arrive at the "change in fair value of the swap," but, in contrast, uses *only* the end-of-period swap curve to arrive at the present value of the change in variable cash flows. Given this approach, a mismatch would be generated due to a change in CVA because both the beginning-of-period CVA and end-of-period CVA would be components of the calculation of the "change in fair value of the swap," but only the end-of-period CVA would be deemed to be a component of the calculation of the "change in variable cash flows." For purposes of the example, we have not attempted to capture the effect of the change in CVA relative to the "change in variable cash flows." Instead we have simply reflected the change in CVA in the derivative's fair value only.

Example 13: *Cash flow hedge of a forecasted issuance of fixed-rate debt with a forward-starting interest rate swap – expected cash flow timing or debt tenor changes (added September 2022)*

Scenario A

On 2 May 20X5, it is probable that Company X will issue \$100,000,000 of 10-year, fixed-rate debt, with quarterly coupons, on 15 November 20X5. The proceeds from the issuance of the debt are needed to finance the expansion of the Company's production facilities. The Company is concerned that market interest rates for the 10-year forward period of 15 November 20X5 to 15 November 20Y5 will increase during the six-and-a-half months from 2 May 20X5 (trade date of the swap) to 15 November 20X5 (effective date of the swap,²³⁹ which coincides with the expected issuance date of the debt), exposing the SOFR OIS benchmark component of each of the 40 projected quarterly interest cash flows during that future 10-year period to the risk of higher rates. Therefore, the Company enters into a forward-starting SOFR OIS-based pay-fixed, receive-variable (based on daily SOFR) interest rate swap on 2 May 20X5 to hedge that risk.

The swap is to be based on the at-the-market 10-year forward SOFR OIS rate for the 10-year period beginning 15 November 20X5 with a notional amount of \$100,000,000 and quarterly settlements. At inception (2 May 20X5), the fair value of the swap is zero. Because the Company intends to issue fixed-rate debt, Company X will no longer be exposed to interest rate variability after the date of the debt issuance. As a result, the company usually terminates²⁴⁰ the forward-starting interest rate swap either prior to or simultaneously with the fixed-rate debt issuance.

If forward interest rates increase, the swap will become an asset and Company X will receive a payment from the bank counterparty when it terminates the swap upon debt issuance. This will help offset the higher interest rate at which the fixed-rate debt will be issued due to the increase in market interest rates. If forward interest rates decline, the swap will become a liability and Company X will be obligated to make a payment to the bank counterparty upon swap termination. This will serve to offset the lower interest rate at which the fixed-rate debt will be issued due to the decrease in market interest rates.

Management forecasts the debt to be issued on 15 November 20X5. The Company realizes the issuance date is subject to change based on when construction starts, but any delay is not expected to be past 1 January 20X6. The Company does not anticipate any other debt issuances during this period. Prospective and retrospective hedge effectiveness will be assessed on an ongoing basis using the cumulative dollar-offset method described in ASC 815-20-25-79 and 35-5.

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge is to hedge the risk of changes in the 40 quarterly interest payments attributable to changes in the benchmark interest rate during the six-and-a-half months leading up to the probable issuance date of 10-year fixed-rate debt expected to occur on 15 November 20X5, but no later than 1 January 20X6, which are subject to change due to fluctuations in the six-and-a-half month forward 10-year SOFR OIS rate. Changes in the value of the forward-starting SOFR OIS-based interest rate swap pegged to the 10-year period beginning 15 November 20X5 are expected to be highly effective in offsetting the variability associated with the 40 quarterly interest payments attributable to fluctuations in the forward benchmark 10-year SOFR OIS rate during a six-and-a-half-month period. |
| Date of designation | 2 May 20X5 |
| Hedging instrument | \$100,000,000 notional amount, receive variable (daily SOFR compounded in arrears) and pay fixed (5%), six- and- a- half- month forward-starting 10-year interest rate swap. Forward period: 2 May 20X5 to 15 November 20X5. Accruing period: 15 November 20X5 to 15 November 20Y5 (10 years). |

²³⁹ Interest payments on the fixed and floating legs of the swap do not begin to accrue until the forward start date.

²⁴⁰ The derivative counterparty (e.g., bank) may also require that the swap be terminated on the effective date as this limits the life of the swap and the associated credit risk exposure of the swap.

| | |
|---|---|
| Hedged transaction | 40 quarterly interest payments on \$100 million principal amount of debt expected to begin accruing 15 November 20X5, with the first payment on 15 February 20X6 and 39 quarterly dates thereafter, associated with the forecasted issuance of fixed-rate debt on 15 November 20X5 that is targeted for our production facility expansion. The debt is to be issued on 15 November 20X5. We realize the issuance may be subject to a delay due to the targeted start of construction but any delay is not expected to be past 1 January 20X6. We do not anticipate any other debt issuances during this period. If greater than \$100 million of debt is issued, the hedged cash flows will be based only on the “first” \$100 million of debt issued in November or thereafter. |
| How hedge effectiveness will be assessed | <p>Prospective and retrospective hedge effectiveness will be assessed on an ongoing basis using the cumulative dollar-offset method²⁴¹ : comparing the changes in cumulative gain or loss from the forward-starting interest rate swap with the cumulative changes in the present value of the expected future quarterly interest cash flows that are attributable to changes in the benchmark SOFR OIS rate. When performing the cumulative dollar-offset assessment, we will utilize the hypothetical-derivative method provided in ASC 815-30-35-25 through 35-30.²⁴²</p> <p>Changes in the expected quarterly interest cash flows that are attributable to changes in the Company’s credit spread are not being hedged and ignored for purposes of determining the effectiveness of the hedging relationship. Cumulative dollar-offsets of between 80% and 125% will be deemed “highly effective.”</p> <p>Because the forward-starting interest rate swap is designed with the same terms and maturity date as the anticipated date of the fixed-rate debt issuance (15 November 20X5, with quarterly interest payments every 15 February, 15 May, 15 August and 15 November thereafter for 10 years), the hedge is expected to be perfectly effective as long as the debt is issued on the date forecasted and there is no deterioration in counterparty credit risk. Counterparty credit risk will be monitored every quarter.</p> <p>If the debt issuance is delayed or accelerated, the hedge will no longer be perfectly effective due to timing differences because the 10-year period that the debt will be outstanding will no longer exactly coincide with the 10-year period used to determine the fixed SOFR OIS rate in the hedging instrument. To address the uncertainty in timing, we have designated a range starting on 15 November 20X5 and ending on 1 January 20X6 over which the debt issuance is expected to occur, pursuant to ASC 815-20-25-16(c). To support the assertion that the hedging instrument will be highly effective at offsetting the hedged risk at any point within this range, we have performed a regression analysis at inception to test the impact on the hedge relationship assuming the debt was issued on 1 January 20X6 (i.e., the last day of the range). The results of the regression analysis indicate that the hedge would still be highly effective if the debt is issued on the last day of the specified range. Accordingly, we expect the hedge relationship to be highly effective as long as the debt is issued at any point within the range.</p> <p>We currently anticipate that the 40 quarterly interest cash flows will be associated with 10-year debt, but in case that tenor changes, we will reassess hedge effectiveness as necessary.</p> |

Note that the designation focuses on the 40 quarterly interest payments that will occur after fixed-rate debt is issued at par on 15 November 20X5, rather than on the variability of debt issuance proceeds from a fixed-rate debt issuance occurring at a pre-determined rate.

²⁴¹ A cumulative dollar-offset method for assessing hedge effectiveness is used in this example for illustrative purposes. However, in practice, we observe that most entities perform a regression analysis for effectiveness assessment for this type of hedging relationship.

²⁴² As noted in chapter 4, the use of the hypothetical derivative method of assessing hedge effectiveness does not result in any incremental mismatch associated with changes in the creditworthiness of either party to the derivative contract, as long as payment under the derivative contract is still deemed probable for both the Company and the counterparty. Accordingly, for simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. See chapter 4 for further discussion.

At 2 May 20X5, the date of hedge designation, no journal entry is recorded, because fair value of the swap is zero on that date.

At 30 June 20X5, there are no changes to the expected 15 November 20X5 issuance, and therefore, to the timing of the hedged cash flows. Both the derivative and hedged item have 40 expected quarterly cash flows that match. In order to assess hedge effectiveness, Company X chose the hypothetical derivative method of ASC 815-30-35-25 through 35-30, under which Company X created a hypothetical derivative using the 2 May 20X5 (date of hedge designation) 10-year forward-starting curve for the forward period 15 November 20X5 through 15 November 20Y5 with 40 quarterly interest flows starting 15 February 20X6 and ending 15 November 20Y5. The following table shows the fair value of the actual and hypothetical derivatives at 30 June 20X5 (Note: No difference in value exists as the critical terms of the actual derivative and the hypothetical derivative match in that there has been no change in expectations):

| | |
|---|----------------|
| Actual Derivative (loss) | \$ (2,656,155) |
| Hypothetical Derivative | - (2,656,155) |
| Difference between Actual and Hypothetical Derivative | <u>\$ -</u> |

Forward interest rates for 15 November 20X5 to 15 November 20Y5 declined between 2 May and 30 June 20X5. Accordingly, Company X now expects to be in a "net pay" position under the swap, as it becomes a liability. Company X now expects to pay less interest cash flows on its forecasted debt over the 10-year period starting 15 November 20X5 than it expected on 2 May 20X5, the hedge inception date.

The following table reflects the current period and cumulative changes in fair value of the derivative and current period and cumulative changes in the fair value of the hypothetical derivative, which is deemed to be a proxy for the change in the present value of the expected future cash flows on the hedged transaction, with the corresponding required adjustment to other comprehensive income:

| 30 June 20X5 calculations | | | | | | |
|---------------------------|--|-------------------|---|-------------------|-----------------------------|---------------------|
| Period ended | Fair value of derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (Dr.)/Cr. adjustment to OCI | Dollar offset ratio |
| | (A) | (B) | (C) | (D) | | |
| | Change during the period | Cumulative change | Change during the period | Cumulative change | | |
| 30 June 20X5 | \$(2,656,155) | \$(2,656,155) | \$2,656,155 | \$2,656,155 | \$(2,656,155) | 100.0% |

In accordance with the hedge effectiveness method specified in the hedge documentation, the Company evaluates the cumulative dollar-offset ratio to determine whether the hedge has been highly effective since its inception. Furthermore, the Company evaluates the cumulative dollar-offset ratio to determine whether the hedge is expected to be highly effective on a prospective basis. Company X notes that the cumulative dollar-offset ratio is 100.0% and, therefore, concludes that the hedge has been highly effective retrospectively and is expected to be highly effective prospectively. Therefore, the entire change in fair value of the swap is recorded as an offset to OCI, and hedge accounting may continue prospectively.

The following journal entry would be required to record the effects of the forward-starting interest rate swap as of 30 June 20X5 (the first reporting period after the designation of the hedge) (Note: this example assumes no income tax effects):

| | | |
|----------------------------|--------------|--------------|
| Other comprehensive income | \$ 2,656,155 | |
| Swap | | \$ 2,656,155 |

To record the change in fair value of the forward-starting swap.

At 15 September 20X5, due to issues with the start of construction for the expansion of Company X's production facility, there is a 30-day delay in the expected issuance of the debt from 15 November 20X5 to 15 December 20X5. When current expectations of a forecasted future cash flow have changed, an entity is required to re-define its "hypothetical derivative." This exercise is accomplished by going back to the forward curve that existed on the date the entity entered into the actual derivative (2 May 20X5) and determining what alternative forward-starting derivative the entity would have entered into if it had perfect knowledge of the future.

As a result, the hypothetical derivative is revised using the 2 May 20X5 (the date of hedge designation) forward curve for the period 15 December 20X5 through 15 December 20Y5 with 40 quarterly interest payments starting 15 March 20X6 and ending 15 December 20Y5. Both the actual derivative and the hedged item still have 40 expected quarterly cash flows but now they are each different by one month. Importantly, none of the 40 cash flows shifted by more than the 47 days Company X had anticipated and documented at inception of the hedge and, therefore, each of the 40 quarterly cash flows as originally defined remain "probable" of occurring.

Meanwhile, forward interest rates for 15 November 20X5 to 15 November 20Y5 increased between 30 June and 15 September 20X5.

The following table shows the fair value of the actual and the revised hypothetical derivatives at 15 September 20X5 (Note: The difference between the two derivatives is due to the 30-day delay):

| | |
|--|------------------|
| Actual Derivative (loss) | \$ (442,303) |
| Revised Hypothetical Derivative (30-day delay) | - (472,690) |
| Difference between Actual and Hypothetical Derivatives | <u>\$ 30,387</u> |

The following table reflects the current period and cumulative changes in fair value of the derivative and current period and cumulative changes in the fair value of the hypothetical derivative, which is deemed to be a proxy for the change in the present value of the expected future cash flows on the hedged transaction, with the corresponding required adjustment to other comprehensive income:

| 15 September 20X5 calculations | | | | | | |
|--------------------------------|--|-------------------|---|-------------------|--|---------------------|
| Period ended | Fair value of derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (E) (Dr.)/Cr. adjustment to OCI | Dollar offset ratio |
| | (A) | (B) | (C) | (D) | | |
| | Change during the period | Cumulative change | Change during the period | Cumulative change | | |
| 30 June 20X5 | \$(2,656,155) | \$(2,656,155) | \$2,656,155 | \$2,656,155 | \$(2,656,155) | 100.0% |
| 15 September 20X5 | 2,213,852 | (442,303) | (2,183,465) | 472,690 | 2,213,852 | 93.6% |

There is an expected delay of 30 days from 15 November 20X5 to 15 December 20X5 (which is still within the designated range) in the issuance of the debt. Company X evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception. Furthermore, the company evaluates the cumulative dollar-offset ratio to determine whether the hedge is expected to be effective on a prospective basis. Company X notes that the cumulative dollar-offset ratio is 93.6%, calculated as the cumulative change of the actual derivative divided by the cumulative change of the present value of the expected future cash flows on the hedged transaction (or \$442,303/\$472,690). Therefore, the company concludes that the hedge has been highly effective retrospectively. Company X notes that it continues to believe its original prospective regression analysis on the window of timing for possible debt issuance, coupled with its favorable cumulative dollar-offset results this far, support a continuing prospective assessment of the hedge as "highly effective."

The following journal entry would be required to record the effects of the swap as of 15 September 20X5:

| | | |
|----------------------------|--------------|--------------|
| Swap | \$ 2,213,852 | |
| Other comprehensive income | | \$ 2,213,852 |

To record the change in fair value of the forward-starting swap.

At 30 September 20X5, the expected delay of the start of construction for the expansion of Company X's production facility remains at 30 days and therefore the expected issuance of the debt remains at 15 December 20X5. The following table shows the fair market value of the actual and hypothetical derivatives at 30 September 20X5. Both derivatives have flipped from being liabilities at 15 September 20X5 to assets just 15 days later (Note: The difference between the two derivatives is still due to the 30 day delay from the original expected timing):

| | |
|--|---------------------------------|
| Actual Derivative (gain) | \$ 663,202 |
| Hypothetical Derivative (30-day delay) | <u> 628,858</u> |
| Difference between Actual and Hypothetical Derivatives | <u><u> \$ 34,344</u></u> |

The following table reflects the current-period and cumulative changes in fair value of the derivative and current-period and cumulative changes in the fair value of the hypothetical derivative, which is deemed to be a proxy for the change in the present value of the expected future cash flows on the hedged transaction, with the corresponding required adjustment to other comprehensive income:

| 30 September 20X5 calculations | | | | | | |
|---------------------------------------|---|----------------------|---|----------------------|--|------------------------|
| Period ended | Fair value of derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (E) (Dr.)/Cr. adjustment to OCI | Dollar offset ratio |
| | (A) | (B) | (C) | (D) | | |
| | Change during the period | Cumulative change | Change during the period | Cumulative change | | |
| 30 June 20X5 | \$(2,656,155) | \$(2,656,155) | \$2,656,155 | \$2,656,155 | \$(2,656,155) | 100.0% |
| 15 September 20X5 | 2,213,852 | (442,303) | (2,183,465) | 472,690 | 2,213,852 | 93.6% |
| 30 September 20X5 | 1,105,505 | 663,202 | (1,101,548) | (628,858) | 1,105,505 | 105.5% |

As it did in prior periods, Company X evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception and whether the hedge is expected to be effective on a prospective basis. Company X notes that the cumulative dollar-offset ratio is 105.5%, calculated as the cumulative change of the actual derivative divided by the cumulative change of the present value of the expected future cash flows on the hedged transaction (or \$663,202/\$628,858). Therefore, the company concludes that the hedge has been highly effective retrospectively. Company X notes that it continues to believe its original prospective regression analysis on the window of timing for possible debt issuance, coupled with its favorable cumulative dollar-offset results this far, support a continuing prospective assessment of the hedge as "highly effective."

The following journal entries would be required to record the effects of the swap as of 30 September 20X5:

| | | |
|----------------------------|--------------|--------------|
| Swap | \$ 1,105,505 | |
| Other comprehensive income | | \$ 1,105,505 |

To record the change in fair value of the forward-starting swap.

At 31 October 20X5, due to continuing issues with the start of construction, an additional 17-day delay (47 days in total) is currently expected and the expected issuance of the debt changes from 15 December 20X5 to 1 January 20X6. Therefore, the hypothetical derivative is revised using the 2 May 20X5 (the date of hedge designation) forward curve for the period 1 January 20X6 through 1 January 20Y6 with 40 quarterly interest payments starting 1 April 20X6 and ending 1 January 20Y6. Both the actual derivative and the hedged item still have 40 expected quarterly cash flows but now they are each different by 47 days. Importantly, none of the 40 cash flows are outside the range Company X had anticipated and documented at inception of the hedge and, therefore, each of the 40 quarterly cash flows as originally defined remain “probable” of occurring.

The following table shows the fair value of the actual and revised hypothetical derivatives at 31 October 20X5 (Note: The difference is due to the 47-day delay):

| | |
|--|--------------------|
| Actual Derivative (gain) | \$ 2,812,720 |
| Revised Hypothetical Derivative (47-day delay) | <u>– 2,717,092</u> |
| Difference between Actual and Hypothetical Derivatives | <u>\$ 95,628</u> |

The following table reflects the current period and cumulative changes in fair value of the derivative and current period and cumulative changes in the fair value of the hypothetical derivative, which is deemed to be a proxy for the change in the present value of the expected future cash flows during on the hedged transaction, with the corresponding required adjustment to other comprehensive income:

| 31 October 20X5 calculations | | | | | | |
|-------------------------------------|---|----------------------|---|----------------------|--|------------------------|
| Period ended | Fair value of derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (E) (Dr.)/Cr. adjustment to OCI | Dollar offset ratio |
| | (A) | (B) | (C) | (D) | | |
| | Change during the period | Cumulative change | Change during the period | Cumulative change | | |
| 30 June 20X5 | \$(2,656,155) | \$(2,656,155) | \$2,656,155 | \$2,656,155 | \$(2,656,155) | 100.0% |
| 15 September 20X5 | 2,213,852 | (442,303) | (2,183,465) | 472,690 | 2,213,852 | 93.6% |
| 30 September 20X5 | 1,105,505 | 663,202 | (1,101,548) | (628,858) | 1,105,505 | 105.5% |
| 31 October 20X5 | 2,149,518 | 2,812,720 | (2,088,234) | (2,717,092) | 2,149,518 | 103.5% |

There is an expected delay of an additional 17 days (47 days in total, which is still within the designated range) in issuance of the debt from 15 November 20X5 to 1 January 20X6. As it did in prior periods, Company X evaluates the cumulative dollar-offset ratio to determine whether the hedge has been effective since its inception and whether the hedge is expected to be effective on a prospective basis. Company X notes that the cumulative dollar-offset ratio is 103.5%, calculated as the cumulative change of the actual derivative divided by the cumulative change of the present value of the expected future cash flows on the hedged transaction (or \$2,812,720/\$2,717,092). Therefore, the company concludes that the hedge has been highly effective retrospectively. At this time, Company X still intends to terminate the forward-starting interest rate swap on 15 November 20X5 as originally planned, so this hedge only needs to be highly effective for 15 more days. Based on the favorable retrospective results for October 20X5, the Company assesses prospectively that the hedging relationship is likely to be “highly effective” for the remaining 15 days. Additionally, Company X has determined that the 40 hedged interest payments remain probable to occur within the originally specified forecast period, which is required by ASC 815 in order to continue the hedge relationship.

The following journal entries would be required to record the effects of the swap as of 31 October 20X5:

| | | |
|----------------------------|--------------|--------------|
| Swap | \$ 2,149,518 | |
| Other comprehensive income | | \$ 2,149,518 |

To record the change in fair value of the forward-starting swap.

At 15 November 20X5, the forward-starting swap is terminated and settled with the bank. Company X must make a final assessment of hedge effectiveness at the termination of the hedge. The following table shows the fair value of the actual and hypothetical derivatives at 15 November 20X5 before the termination of the swap (Note: The difference is due to the 47-day delay from the original expected timing):

| | |
|--|------------------|
| Actual Derivative (gain) | \$ 3,025,162 |
| Hypothetical Derivative (47-day delay) | – 2,926,765 |
| Difference between Actual and Hypothetical Derivatives | <u>\$ 98,397</u> |

The following table reflects the current period and cumulative changes in fair value of the derivative and current period and cumulative changes in the fair value of the hypothetical derivative, which is deemed to be a proxy for the change in the present value of the expected future cash flows on the hedged transaction, with the corresponding required adjustment to other comprehensive income:

| 15 November 20X5 calculations | | | | | | |
|-------------------------------|--|-------------------|---|-------------------|---------------------------------------|---------------------|
| Period ended | Fair value of derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (E) (Dr.)/Cr. adjustment to OCI | Dollar offset ratio |
| | (A) | (B) | (C) | (D) | | |
| | Change during the period | Cumulative change | Change during the period | Cumulative change | | |
| 30 June 20X5 | \$(2,656,155) | \$(2,656,155) | \$2,656,155 | \$2,656,155 | \$(2,656,155) | 100.0% |
| 15 September 20X5 | 2,213,852 | (442,303) | (2,183,465) | 472,690 | 2,213,852 | 93.6% |
| 30 September 20X5 | 1,105,505 | 663,202 | (1,101,548) | (628,858) | 1,105,505 | 105.5% |
| 31 October 20X5 | 2,149,518 | 2,812,720 | (2,088,234) | (2,717,092) | 2,149,518 | 103.5% |
| 15 November 20X5 | 212,442 | 3,025,162 | (209,673) | (2,926,765) | 212,442 | 103.4% |

There is an expected delay of 47 days in issuance of the debt from 15 November 20X5 to 1 January 20X6. Company X notes that the cumulative dollar-offset ratio is 103.4% ($3,025,162 / \$2,926,765$). Therefore, the company concludes that the hedge continues to be highly effective.

The following journal entries would be required to record the effects of the swap as of 15 November 20X5 (given no other events occur):

| | | |
|--|--------------|--------------|
| Swap | \$ 212,442 | |
| Other comprehensive income | | \$ 212,442 |
| To record the change in fair value of the forward-starting swap. | | |
| Cash | \$ 3,025,162 | |
| Swap | | \$ 3,025,162 |

To settle the forward-starting swap by receiving a cash payment from the investment bank upon termination at the start date of the swap.

How we see it

Company X now must decide whether it wishes to establish a new cash flow hedge to cover the exposure period of 15 November 20X5 to 1 January 20X6, still the expected date of the debt issuance. Company X could do this by entering into a new forward-starting swap that would be executed at market terms at a fair value at or near zero. Alternatively, Company X could hedge its exposure to movements in the forward rate from 15 November 20X5 to 1 January 20X6 by “rolling” the original forward-starting swap into a new off-market derivative (no exchange of cash for the gain would occur, instead the gain would be “rolled” into the new derivative, effectively loaning the counterparty that amount, and as a result, the terms of the new derivative would be off-market in order to compensate Company X for the loaned amount). Either way, all new hedge documentation and hedge effectiveness assessments must be performed. If the gain were “rolled” into a new derivative, additional hedge effectiveness assessments would be performed to capture the effect of using a new swap struck at off-market rates. See Section 6.3.2 for additional discussion on this issue.

On 1 January 20X6 the debt is issued at par.

| | | |
|------|----------------|----------------|
| Cash | \$ 100,000,000 | |
| Debt | | \$ 100,000,000 |

To record issuance of 4.995% fixed-rate debt (calculated as the “par” rate of 10-year debt) at 1 January 20X6 date of issuance.

After the debt is issued, the amortization of the credit balance in other comprehensive income of \$3,025,162 (which represents the fair value of the derivative on the date the swap was terminated) will occur over the life of the fixed-rate debt instrument, decreasing total interest expense. While the FASB has never indicated a particular methodology that should be applied for amortization of “frozen” AOCI balances, we believe this amortization should follow a level-yield amortization method determined as if the amount in other comprehensive income was an adjustment of the carrying amount of the debt.

Because Company X issued 10-year debt on 1 January 20X6 instead of 15 November 20X5, it issued debt at a fixed-rate of 4.995% that is coincidentally very close to the 5.000% fixed-rate it sought to lock in. The effect of accreting the credit balance in AOCI will actually result in an effective rate below the 5.000% Company X sought to achieve.

| “Frozen” AOCI amortization table | | | |
|---|-----------------------------------|--------------------------------|---|
| Quarter | Quarterly interest coupons | Quarterly OCI accretion | Total quarterly interest expense |
| Q1 Year 1 | \$ 1,248,750 | \$ (59,882) | \$ 1,188,868 |
| Q2 Year 1 | 1,248,750 | (60,576) | 1,188,174 |
| Q3 Year 1 | 1,248,750 | (61,278) | 1,187,472 |
| Q4 Year 1 | 1,248,750 | (61,988) | 1,186,762 |
| Q1 Year 2 | 1,248,750 | (62,706) | 1,186,044 |
| Q2 Year 2 | 1,248,750 | (63,433) | 1,185,317 |
| Q3 Year 2 | 1,248,750 | (64,168) | 1,184,582 |
| Q4 Year 2 | 1,248,750 | (64,911) | 1,183,839 |
| Q1 Year 3 | 1,248,750 | (65,663) | 1,183,087 |
| Q2 Year 3 | 1,248,750 | (66,424) | 1,182,326 |
| Q3 Year 3 | 1,248,750 | (67,194) | 1,181,556 |
| Q4 Year 3 | 1,248,750 | (67,972) | 1,180,778 |
| Q1 Year 4 | 1,248,750 | (68,760) | 1,179,990 |
| Q2 Year 4 | 1,248,750 | (69,556) | 1,179,194 |
| Q3 Year 4 | 1,248,750 | (70,362) | 1,178,388 |
| Q4 Year 4 | 1,248,750 | (71,177) | 1,177,573 |
| Q1 Year 5 | 1,248,750 | (72,002) | 1,176,748 |
| Q2 Year 5 | 1,248,750 | (72,836) | 1,175,914 |
| Q3 Year 5 | 1,248,750 | (73,680) | 1,175,070 |
| Q4 Year 5 | 1,248,750 | (74,534) | 1,174,216 |
| Year 6-Q3 Year 10 | 23,726,250 | (1,592,213) | 22,134,037 |
| Q4 Year 10 | 1,248,750 | (93,845) | 1,154,905 |
| Total | \$ 49,950,000 | \$ (3,025,162) | \$ 46,924,838 |

On 31 March 20X6, the first quarterly reporting period after the debt issuance, the following entry would be recorded for the quarter:

| | | |
|----------------------------|--------------|--------------|
| Interest expense | \$ 1,188,868 | |
| Other comprehensive income | 59,882 | |
| Accrued Interest | | \$ 1,248,750 |

To record interest expense and accretion of other comprehensive income.

The following summary table shows the fair value of the actual and hypothetical derivatives at each of the reporting dates or the date an event occurs. This table illustrates how the hypothetical derivative method captures changes in cash flow expectations by constantly redefining the “perfect hypothetical” as necessary.

| Fair value of actual derivative and hypothetically perfect derivative, given delays | | | | | |
|--|---------------------------------|-------------------------------------|---------------------------------|--------------------------------------|------------------------------------|
| Event | 6/30/20X5 (qtr. end) | 9/15/20X5 (30-day delay) | 9/30/20X5 (qtr. end) | 10/31/20X5 (47-day delay) | 11/15/20X5 (swap term.) |
| Actual derivative | \$ (2,656,155) | \$ (442,303) | \$ 663,202 | \$ 2,812,720 | \$ 3,025,162 |
| Hypothetical derivative | (2,656,155) | - | - | - | - |
| Revised hypothetical derivative (30-day delay) | - | (472,690) | 628,858 | - | - |
| Revised hypothetical derivative (47-day delay) | - | - | - | 2,717,092 | 2,926,765 |

Scenario B

Assume the same facts as in Scenario A except at the last minute on 15 November 20X5, Company X decides that on 1 January 20X6, it will issue five-year fixed-rate debt and then refinance to cover years six through 10, instead of issuing 10-year debt. Company X did not perform any sensitivity analysis on the assumption that the hedge would be “highly effective” if the tenor of the debt changed from 10 to five years, with a refinancing for the following five years. Company X must perform a retrospective calculation to ascertain how this change in expectations affects the hedge, even though Company X plans to terminate the swap and therefore the hedge accounting relationship on 15 November anyway. That is, one final assessment of effectiveness is required, as indicated in ASC 815-30-55-97.

When current expectations of a forecasted future cash flow have changed, an entity is required to redefine its “hypothetical derivative” when applying guidance in ASC 815-30-35-25 through 35-30 in order to capture the impact of this change in expectation on the effectiveness of the hedge relationship. Scenario B presents a unique fact pattern in that *two* hypothetical derivatives are required to be created to accurately capture the full 10-year hedging period, the first using the 2 May 20X5 (the date of hedge designation) forward curve for the period 1 January 20X6 through 1 January 20Y1 (with 20 quarterly interest flows starting 1 January 20X6 and ending 1 January 20Y1) and the second using the 2 May 20X5 (the date of hedge designation) forward curve for the period 1 January 20Y1 through 1 January 20Y6 (with 20 quarterly interest flows starting 1 January 20Y1 and ending 1 January 20Y6). The second hypothetical derivative must be defined in this way because Company X now believes that the fixed-rate for years six through 10 will be fixed on 1 January 20Y1, not 1 January 20X6. Company X is still hedging 40 cash flows expected to result from the forecasted debt issuances.²⁴³ However, this will now take place in two parts, the first issuance on 1 Jan 20X6 and the second issuance on 1 Jan 20Y1.

²⁴³ Note that Company X is able to assert that the original quarterly cash flows remain probable of occurring during the originally designated hedge period.

The following table shows the fair value of the actual and hypothetical derivatives at 15 November 20X5:

| | |
|---|------------------|
| Actual Derivative (gain) | \$ 3,025,162 |
| Hypothetical Derivative #1 (5 yr. debt for years 1-5) | – 2,270,940 |
| Hypothetical Derivative #2 (5 yr. debt for years 6-10) | <u>– 673,261</u> |
| Difference between Actual & Total of Hypothetical Derivatives | <u>\$ 80,961</u> |

The following table reflects the current-period and cumulative changes in fair value of the derivative and current-period and cumulative changes in the fair value of the hypothetical derivative, which is deemed to be a proxy for the change in the present value of the expected future cash flows on the hedged transaction, with the corresponding required adjustment to other comprehensive income:

| Calculations through 15 November 20X5 | | | | | | |
|---------------------------------------|--|-------------------|---|-------------------|-----------------------------|---------------------|
| Period ended | Fair value of derivative increase (decrease) | | Fair value of hypothetical derivative (proxy for hedged item) increase (decrease) | | (Dr.)/Cr. adjustment to OCI | Dollar offset ratio |
| | (A) | (B) | (C) | (D) | | |
| | Change during the period | Cumulative change | Change during the period | Cumulative change | | |
| 30 June 20X5 | \$(2,656,155) | \$(2,656,155) | \$2,656,155 | \$2,656,155 | \$(2,656,155) | 100.0% |
| 15 September 20X5 | 2,213,852 | (442,303) | (2,183,465) | 472,690 | 2,213,852 | 93.6% |
| 30 September 20X5 | 1,105,505 | 663,202 | (1,101,548) | (628,858) | 1,105,505 | 105.5% |
| 31 October 20X5 | 2,149,518 | 2,812,720 | (2,088,234) | (2,717,092) | 2,149,518 | 103.5% |
| 15 November 20X5 | 212,442 | 3,025,162 | (227,109) | (2,944,201) | 212,442 | 102.7% |

Record the same journal entries from 2 May 20X5 through 31 October 20X5 as noted in Scenario A.

The following journal entries would be required to record the effects of the swap as of 15 November 20X5 (as the Company decides that effective 1 January 20X6, it will issue five-year fixed-rate debt and then refinance to cover years six through 10, instead of issuing 10-year debt):

| | | |
|----------------------------|------------|------------|
| Swap | \$ 212,442 | |
| Other comprehensive income | | \$ 212,442 |

To record the change in fair value of the forward-starting swap. The hedge continues to be highly effective (102.7%) or \$3,025,162/\$2,944,201.

| | | |
|------|--------------|--------------|
| Cash | \$ 3,025,162 | |
| Swap | | \$ 3,025,162 |

To settle the forward-starting swap by receiving a cash payment from the investment bank upon termination at debt issuance date.

7 Foreign currency hedges

7.1 What is a foreign currency hedge?

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Items and Transactions Involving Foreign Exchange Risk

815-20-25-28

If the hedged item is denominated in a foreign currency, an entity may designate any of the following types of hedges of foreign currency exposure:

- a. A fair value hedge of an unrecognized firm commitment or a recognized asset or liability (including an available-for-sale debt security)
- b. A cash flow hedge of any of the following:
 1. A forecasted transaction
 2. An unrecognized firm commitment
 3. The forecasted functional-currency-equivalent cash flows associated with a recognized asset or liability
 4. A forecasted intra-entity transaction.
- c. A hedge of a net investment in a foreign operation.

In developing Statement 133 and its subsequent amendments, the FASB did not comprehensively reconsider the accounting for foreign currency transactions addressed in Statement 52 (codified in ASC 830). Rather, the FASB limited its guidance on foreign currency transactions to:

- ▶ Allowing hedge accounting for the type of hedged items (e.g., net investments and firm commitments) and hedging instruments (e.g., derivatives and nonderivatives) that were in the scope of Statement 52
- ▶ Increasing the consistency of hedge accounting guidance for foreign currency hedges and other types of hedges by broadening the scope of foreign currency hedges that are eligible for hedge accounting

To retain the existing guidance in Statement 52 (ASC 830) while taking into account special circumstances related to foreign currency exposures, the FASB provided four exceptions to the general hedge accounting principles in Statement 133 (ASC 815) by permitting:

- ▶ A nonderivative financial instrument denominated in a foreign currency to be designated as a hedge of a firm commitment
- ▶ A derivative or nonderivative financial instrument denominated in a foreign currency to be designated as a hedge of the foreign currency exposure of a net investment in a foreign operation
- ▶ A recognized foreign-currency-denominated asset or liability for which a foreign currency transaction gain or loss is recognized in earnings under ASC 830-20-35-1 to be the hedged item in a fair value hedge, or the cash flows therefrom, to be the hedged item in a cash flow hedge

- ▶ Derivative instruments entered into with a member of the consolidated group to qualify as hedging instruments in the consolidated financial statements if those internal derivatives are offset by unrelated third-party contracts on a net basis

To increase the consistency between the hedge accounting guidance for foreign currency hedges and that for other types of hedges, ASC 815 also permits hedge accounting for hedges of forecasted foreign currency transactions, including intercompany transactions. In addition, the guidance allows entities to use foreign currency forward contracts and certain types of cross-currency swaps to hedge net investments in foreign subsidiaries or firm commitments.

7.2 General foreign currency hedge criteria

All foreign currency hedges (fair value, cash flow and net investment hedges) have to meet certain specific criteria to qualify for hedge accounting in general:²⁴⁴

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Items and Transactions Involving Foreign Exchange Risk

815-20-25-30

Both of the following conditions shall be met for foreign currency cash flow hedges, foreign currency fair value hedges, and hedges of the net investment in a foreign operation:

- a. For consolidated financial statements, either of the following conditions is met:
 1. The operating unit that has the foreign currency exposure is a party to the hedging instrument.
 2. Another member of the consolidated group that has the same functional currency as that operating unit is a party to the hedging instrument and there is no intervening subsidiary with a different functional currency. See guidance beginning in paragraph 815-20-25-52 for conditions under which an intra-entity foreign currency derivative can be the hedging instrument in a cash flow hedge of foreign exchange risk.
- b. The hedged transaction is denominated in a currency other than the hedging unit's functional currency.

815-20-25-31

However, a subsidiary may enter into an intra-entity hedging instrument with the parent entity, and that contract can be a hedging instrument in the consolidated financial statements if the parent entity enters into an offsetting contract (pursuant to paragraph 815-20-25-52 for the appropriate hedging relationship) with an unrelated third party to hedge the exposure it acquired from issuing the derivative instrument to the subsidiary that initiated the hedge.

For example, a US parent company could not designate a pay-US dollar/receive-euro forward contract as a hedge of the foreign currency risk of its European subsidiary's US-dollar-denominated export sales because the US parent has no exposure to foreign exchange risk for dollar-denominated sales. However, the US parent (or a centralized treasury operation with a US-dollar functional currency) could enter into a forward contract to buy US dollars from its European subsidiary in exchange for euros together with an offsetting third-party contract. The European subsidiary could designate its intercompany forward contract (in which the European subsidiary sells US dollars for euros) as a hedge of its forecasted US-dollar-denominated sales. The US parent would then have offsetting positions in its separate financial statements.

²⁴⁴ See ASC 815-20-25-23 through 25-33.

How we see it

As noted above, ASC 815 indicates that one requirement to hedge foreign currency risk is that the hedged transaction be denominated in a currency other than the hedging unit's functional currency. However, we believe there could be certain situations where hedge accounting would be acceptable even though the hedged transaction is technically denominated in the hedging entity's functional currency. This would be the case when the amount to be paid in the hedging entity's functional currency is indexed to a foreign currency.

For example, consider Company A, a US-dollar functional currency entity that enters into a contract to purchase goods in the future at a price denominated in USD where the amount of USD to be paid is determined based on the USD/EUR spot rate at the time of purchase (e.g., payment in USD is required at an amount that equates to 1 million euro). In this case, while the contract is technically denominated in USD, Company A is clearly exposed to foreign currency risk related to the euro. Assuming this contract is determined not to contain an embedded foreign currency derivative requiring bifurcation (e.g., because the functional currency of the counterparty to this contract is euro), we believe Company A could hedge the euro risk related to this contract.

The third-party contract is required for the previous intercompany arrangement to qualify in the consolidated financial statements as a hedge of the European subsidiary's forecasted dollar sales. Since a parent company is a "third party" in a subsidiary's separate financial statements, the European subsidiary could designate its intercompany derivative as a hedge of its US dollar sales in its standalone financial statements. However, this hedging relationship would be eliminated in consolidation, leaving the third-party contract as the hedging instrument in the consolidated financial statements.

The hedge criteria are discussed in more detail later in the sections of this chapter addressing specific hedges (i.e., cash flow, fair value and net investment hedges).

7.2.1

Tandem currency hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Items and Transactions Involving Foreign Exchange Risk

815-20-25-33

In some instances, it may not be practical or feasible to hedge in the same currency and, therefore, a hedging instrument also may be denominated in a currency for which the exchange rate generally moves in tandem with the exchange rate for the currency in which the hedged item is denominated.

ASC 815 permits the use of derivatives denominated in tandem currencies as hedges, requiring only that the hedging instrument be highly effective in offsetting changes in value attributable to the hedged risk during the period the hedge is designated. Tandem currencies are two currencies, other than the reporting currency, that are expected to maintain a similar relationship to the reporting currency. That is, they are highly correlated. For example, assuming that the British pound sterling (GBP) is expected to have a similar relationship to the US dollar as the euro (EUR), the pound sterling and euro could be considered tandem currencies. If the British pound sterling fluctuates 10% in relation to the US dollar, the euro should be expected to also fluctuate in the same direction by approximately 10% in relation to the US dollar.

Under ASC 815, there is not a requirement that the hedging instrument be denominated in the same currency as the hedged exposure, provided that the derivative is highly effective as a hedge. For example, if it is expected that changes in the euro will be highly effective in offsetting changes in the exchange rate

between the US dollar and the British pound sterling, a euro-based derivative could be used to hedge a sterling exposure, even though it might be both practical and feasible to use a sterling forward contract as the hedging instrument.

7.3 Foreign currency cash flow hedges

7.3.1 Qualifying criteria specific to foreign currency cash flow hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Items and Transactions in Cash Flow Hedges of Foreign Exchange Risk

815-20-25-38

The conditions in the following paragraph relate to a derivative instrument designated as hedging the foreign currency exposure to variability in the functional-currency-equivalent cash flows associated with any of the following:

- a. A forecasted transaction (for example, a forecasted export sale to an unaffiliated entity with the price to be denominated in a foreign currency)
- b. A recognized asset or liability
- c. An unrecognized firm commitment
- d. A forecasted intra-entity transaction (for example, a forecasted sale to a foreign subsidiary or a forecasted royalty from a foreign subsidiary).

815-20-25-39

A hedging relationship of the type described in the preceding paragraph qualifies for hedge accounting if all the following criteria are met:

- a. The criteria in paragraph 815-20-25-30(a) through (b) are met.
- b. All of the cash flow hedge criteria in this Section otherwise are met, except for the criterion in paragraph 815-20-25-15(c) that requires that the forecasted transaction be with a party external to the reporting entity.
- c. If the hedged transaction is a group of individual forecasted foreign-currency-denominated transactions, a forecasted inflow of a foreign currency and a forecasted outflow of the foreign currency cannot both be included in the same group.
- d. If the hedged item is a recognized foreign-currency-denominated asset or liability, all the variability in the hedged item's functional-currency-equivalent cash flows shall be eliminated by the effect of the hedge.

ASC 815 allows anticipated foreign currency transactions that satisfy the criteria for a cash flow hedge to be hedged using a variety of hedging instruments. This is consistent with the ability to hedge forecasted interest rate, credit and market price exposures under the cash flow hedging model.

Except for the requirement that the forecasted transaction be with a party external to the reporting entity (see discussion below), a cash flow foreign currency hedge has to comply with all of the other general and cash flow hedge requirements (discussed in chapter 4) and the requirements listed in the first section of this chapter for foreign currency hedges. However, if the forecasted transaction is a group of individual forecasted foreign-currency-denominated transactions, a forecasted inflow of a foreign currency and a forecasted outflow of the foreign currency cannot both be included in the same hedged group.

For example, an entity that uses the US dollar as its functional currency is not allowed to net expected future payments in euros on a royalty agreement against future sales revenue in euros to calculate a net exposure that can be hedged. ASC 815 requires that a separate hedging relationship exist for both the royalty expense and the sales revenue. (However, the entity could designate a portion of the sales revenue in euros as the hedged item to accomplish the same objective.) Also note that nonderivative financial instruments are not allowed to be designated as a hedging instrument in a foreign currency cash flow hedge.

ASC 815 also allows a cash flow hedge of the forecasted functional-currency-equivalent cash flows associated with a foreign-currency-denominated recognized asset or liability.²⁴⁵ Although this is in sharp contrast to the general preclusion in ASC 815 that prohibits hedge accounting for an asset or liability that is remeasured for changes in price attributable to the risk being hedged when those changes are reported currently in earnings, the FASB recognized that the remeasurement required by ASC 830 did not represent a recognition of changes in the fair value of the item. Since these types of hedges are unique, we have included a discussion on hedging of recognized assets and liabilities in section 7.9.

As mentioned above, the scope of foreign currency cash flow hedges allows an entity to designate the foreign currency exposure of a forecasted foreign-currency-denominated intercompany transaction as a hedged transaction in a cash flow hedge. This is different from other cash flow hedges where the hedged forecasted transaction is required to be with a third party. The reason for this exception is that under the functional currency concept of ASC 830, intercompany transactions denominated in a currency other than an entity's functional currency could influence earnings when exchange rates change and the resulting transaction gain or loss is accounted for in the income statement.

Therefore, the guidance allows anticipated intercompany transactions denominated in a currency other than the hedging entity's functional currency to be designated as the hedged item in a cash flow hedge. Intercompany dividend payments would not qualify for hedge accounting under this provision because dividend payments do not affect earnings. However, an entity may hedge a foreign-denominated dividend payable or receivable that is recognized from the date of declaration to the date of payment and remeasured using current exchange rates in accordance with ASC 830.

7.3.2 Operating unit with the foreign currency exposure is a party to the hedging instrument

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Items and Transactions Involving Foreign Exchange Risk

815-20-25-23

Under the functional currency concept of Topic 830, exposure to a foreign currency exists only in relation to a specific operating unit's designated functional currency cash flows. Therefore, exposure to foreign currency risk shall be assessed at the unit level.

815-20-25-24

A unit has exposure to foreign currency risk only if it enters into a transaction (or has an exposure) denominated in a currency other than the unit's functional currency.

²⁴⁵ The forecasted issuance (purchase) of a foreign-currency-denominated debt instrument is not eligible to be designated as the hedged transaction in a cash flow hedge of foreign currency risk because the variation in functional currency-equivalent proceeds that a reporting entity will receive (pay) upon the issuance (purchase) in the future does not represent a direct earnings exposure. The changes in exchange rates from hedge inception to the issuance (purchase) date only affect the initial measurement of the debt instrument. This issue was addressed by the Board during its deliberations on DIG Issue H17, although final guidance was not issued.

815-20-25-25

Due to the requirement in Topic 830 for remeasurement of assets and liabilities denominated in a foreign currency into the unit's functional currency, changes in exchange rates for those currencies will give rise to exchange gains or losses, which results in direct foreign currency exposure for the unit but not for the parent entity if its functional currency differs from its unit's functional currency.

815-20-25-27

Because a parent entity whose functional currency differs from its subsidiary's functional currency is not directly exposed to the risk of exchange rate changes due to a subsidiary transaction that is denominated in a currency other than a subsidiary's functional currency, the parent cannot qualify for hedge accounting for a hedge of that risk. Accordingly, a parent entity that has a different functional currency cannot qualify for hedge accounting for direct hedges of a subsidiary's recognized asset or liability, unrecognized firm commitment or forecasted transaction denominated in a currency other than the subsidiary's functional currency. Also, a parent that has a different functional currency cannot qualify for hedge accounting for a hedge of a net investment of a first-tier subsidiary in a second-tier subsidiary.

Under the functional currency concept of ASC 830, exposure to a foreign currency risk exists only in relation to a specific unit's (e.g., a subsidiary, branch, division or other operating unit) designated functional currency. Therefore, exposure to foreign currency risk must be assessed at the operating unit level rather than on a consolidated basis. Consistent with the functional currency concept of ASC 830, ASC 815 specifically requires the operating unit that has the foreign currency exposure to be a party to the hedging instrument and that a hedged cash flow exposure be denominated in a currency other than that operating unit's functional currency. These requirements also apply to fair value and net investment hedges under ASC 815.

However, another member of the consolidated group may be a party to the hedging instrument if this member has the same functional currency as the operating unit with the foreign currency exposure and there are no entities in the chain of ownership that have a different functional currency.

Excerpt from Accounting Standards Codification**Derivatives and Hedging – Hedging-General****Recognition*****Hedged Items and Transactions Involving Foreign Exchange Risk*****815-20-25-32**

If a subsidiary has the same functional currency as the parent entity or other member of the consolidated group, the parent entity or that other member of the consolidated group may, subject to certain restrictions, enter into a derivative instrument or nonderivative instrument that is designated as the hedging instrument in a hedge of that subsidiary's foreign exchange risk in consolidated financial statements.

When that is the case, any of the units with the shared functional currency can designate a derivative as a hedge of the qualifying foreign currency exposure of one of the other units. This exception recognizes the step-by-step consolidation method required under ASC 830, and therefore is available only if there are no intervening parent companies in the consolidated group that do not share the functional currency.

For example, assume that a US-dollar functional currency parent has a US-dollar functional currency first-tier subsidiary. If the US-dollar functional currency subsidiary has a euro exposure, the US-dollar functional currency parent company could designate its US dollar/euro derivative as a hedge of the subsidiary's exposure. In contrast, assume the US-dollar functional currency parent has a euro functional currency first-tier subsidiary and a US-dollar functional currency second-tier subsidiary. If the second-tier US-dollar functional currency subsidiary has a euro exposure, the US-dollar functional currency parent could not designate its US dollar/euro derivative as a hedge of the second-tier subsidiary's exposure because there is an intervening subsidiary with a different functional currency.

The FASB provided this exception because there is no intervening translation of the financial statements that contain the hedged transaction when each entity in the chain of ownership has the same functional currency. In the situation in which the second-tier subsidiary has the exposure but the immediate parent has a euro functional currency, the financial statements of the second-tier subsidiary must be translated into euros before the euro-denominated financial statements of the first-tier subsidiary are translated into US dollars for consolidation.

7.4 Accounting treatment of foreign currency cash flow hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Internal Derivatives as Hedging Instruments in Cash Flow Hedges of Foreign Exchange Risk

815-20-25-65

A qualifying foreign currency cash flow hedge shall be accounted for as specified in Subtopic 815-30.

The accounting for foreign currency cash flow hedges (including the treatment of excluded components) is the same as the accounting for other cash flow hedges (see ASC 815-30 or chapter 6). Derivatives designated as hedges of forecasted transactions are carried at fair value with the entire change in the fair value included in the assessment of hedge effectiveness recorded in OCI and subsequently recognized in earnings in the same period or periods that the hedged forecasted transaction affects earnings. At that time, this amount is reclassified from AOCI to the same income statement line as the earnings effect of the hedged item.

For certain hedging relationships, the earnings effect of the hedged item will be presented in more than one income statement line item. For example, as illustrated in ASC 815-20-55-79Z through 55-79AD, this would be the case when an entity hedges foreign exchange risk related to both the principal and interest cash flows of a foreign-denominated debt instrument and presents interest accruals in an interest expense line item and the spot remeasurement of the foreign-denominated debt in a foreign currency transaction gain or loss line item. In these circumstances, the change in the fair value of the hedging instrument would also be presented in those corresponding income statement line items.

7.4.1 Intercompany transactions

ASC 815 allows an entity to designate a forecasted foreign-currency-denominated intercompany transaction as a hedged transaction in a cash flow hedge. As with other hedges of forecasted transactions, amounts deferred in AOCI for a forecasted foreign currency transaction are to be recognized in earnings in the same period or periods that the hedged transaction affects earnings, and in the same income statement line as the earnings effect of the hedged item.

When hedging a forecasted foreign currency sale to a third party, the derivative gain or loss (included in the assessment of hedge effectiveness) is recognized in earnings when the sale occurs. However, the hedge of the foreign currency risk of a forecasted purchase from a third party of a product to be used to produce a finished good introduces an added complexity. In this instance, the hedged transaction (the purchase of the component product) does not affect earnings until the sale of the finished good is recorded. Accordingly, the gain or loss from the derivative (included in the assessment of hedge effectiveness)²⁴⁶ would remain in AOCI until the finished product is sold. This will require the development of a tracking system to determine when to recognize amounts deferred in AOCI.

²⁴⁶ Note that if an entity chose to exclude certain components of the change in fair value of the hedging instrument (e.g., forward points) from the assessment of hedge effectiveness, the initial value of the excluded component would be amortized over the life of the hedging instrument. Alternatively, if the entity made a policy election not to apply the amortization approach, changes in the fair value of these excluded components would be recognized in earnings immediately.

This added complexity will exist in many hedges of foreign exchange risk in intercompany transactions, including hedges of intercompany sales. As discussed in ASC 815-30-55-89, intercompany sales do not affect consolidated earnings until a transaction has been completed with a third party. As a result, the entire change in the fair value of the hedging instrument (assuming no components are excluded) recorded in OCI in a cash flow hedge of an anticipated intercompany transaction (purchase or sale) would not be released from AOCI until the transaction affects *consolidated* earnings.²⁴⁷ For example, if a parent has hedged the sale of inventory to its foreign subsidiary in the subsidiary's functional currency, the amounts recorded in AOCI should be reclassified to earnings in the consolidated financial statements only when the inventory has been sold to a third party, which may occur in a reporting period after the intercompany transaction.

7.4.2 Hedging of anticipated intercompany royalty income

In contrast to normal sales transactions in which the third-party transaction generally occurs after the intercompany transaction, intercompany royalty payments generally require a third-party transaction to occur before the intercompany payment is due. If an entity hedges the intercompany royalty payments in its consolidated financial statements, it must reclassify the associated amounts in AOCI to earnings at the time of the sale to the third party (i.e., when the royalty is *earned*) and not at the later time that the intercompany royalty payment is remitted. Once the royalty has been earned, the resulting asset/liability would separately be eligible to be the hedged item in either a cash flow or a fair value hedge of the foreign currency risk.

7.5 Examples of foreign currency cash flow hedges

The following examples illustrate the accounting for foreign currency cash flow hedges:

- ▶ Example 1: Anticipated sales hedged with a forward contract using the forward method
- ▶ Example 2: Anticipated intercompany sales hedged with a forward contract using the forward method
- ▶ Example 3: Anticipated intercompany royalties hedged with a forward contract using the spot method
- ▶ Example 4: Anticipated sales hedged with an option contract

Example 1: *Anticipated sales hedged with a forward contract using the forward method*

DNH Inc. is a US entity that is composed of the DNH Inc. parent company and operating subsidiaries in the US and Japan. It uses the US dollar as its functional currency for all operations, including the Japanese subsidiary. DNH Inc. wants to limit the effect of currency fluctuations in the next quarter by hedging forecasted yen-denominated sales by the Japanese subsidiary. DNH Inc. expects the Japanese subsidiary to sell ¥13,500,000 of goods during the month of June 20X1. Therefore, on 1 January 20X1, it enters into a six-month forward contract to sell ¥13,500,000 and receive \$96,429 on 30 June 20X1 (forward rate \$1: ¥140). Since the Japanese subsidiary and DNH Inc. have the same functional currency, DNH Inc. is permitted to hedge the subsidiary's exposure.

The following table summarizes the key assumptions:

| Key assumptions | | | |
|-----------------|-----------|----------------------------|-----------------------------|
| Date | Spot rate | Forward rate for 6/30/20X1 | Forward contract fair value |
| 01/1/20X1 | \$1: ¥135 | \$1: ¥140 | \$ – |
| 3/31/20X1 | \$1: ¥140 | \$1: ¥142 | 1,338 ²⁴⁸ |
| 6/30/20X1 | \$1: ¥144 | \$1: ¥144 | 2,679 ²⁴⁹ |

²⁴⁷ See ASC 815-30-55-86 through 55-90.

²⁴⁸ $(¥13,500,000/140) - (¥13,500,000/142)/(1.015)$, with 1.5% representing the assumed discount rate for one quarter (6% annualized).

²⁴⁹ $(¥13,500,000/140) - (¥13,500,000/144)$.

In addition, the entity has a policy to record the sales for each month using a weighted average exchange rate for the month in accordance with ASC 830-10-55-10 and 55-11. Assume that the weighted average exchange rate for the month of June 20X1 is \$1: ¥142.

DNH Inc. documents the hedging relationship as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the transaction is to hedge anticipated yen sales that will occur throughout the month of June against currency fluctuations between the US dollar and Japanese yen. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | A six-month forward contract to sell ¥13,500,000 and receive \$96,429 on 30 June 20X1. |
| Hedged item | The forward contract is designated as a hedge of the first ¥13,500,000 of anticipated sales to occur during the month of June 20X1 (i.e., between 1 June and 30 June 20X1). |
| How hedge effectiveness will be assessed | Because the critical terms of the forward contract and the forecasted transaction coincide (i.e., the currency, notional amount and timing), changes in cash flow attributable to the risk being hedged are expected to be completely offset by the hedging derivative. The timing of the hedged forecasted transactions and the maturity of the derivative are assumed to be the same for assessment purposes, in accordance with ASC 815-20-25-84A because the hedged forecasted transactions will occur and the hedging instrument matures within the same 31-day period. Therefore, the effectiveness of the hedging relationship will be assessed prospectively and retrospectively during the life of the hedge by comparing the current terms of the forward and the forecasted hedged transaction to ensure they continue to coincide and through an evaluation of the continued ability of the counterparties to honor their obligations under the forward contract. Should the critical terms no longer match, hedge effectiveness (both prospective and retrospective) will be assessed by evaluating the cumulative dollar-offset ratio for the actual derivative and the hedged item. The hedged item will be modeled by using a hypothetical derivative with terms that exactly match those of the hedged item. |

The entity would document its periodic (e.g., at least quarterly) assessment of effectiveness by confirming that the terms of the hedged item and the forward contract remain unchanged, and that its own credit standing and the creditworthiness of the counterparty to the forward contract have not deteriorated. Assuming such circumstances have not arisen, at each assessment date the entity would conclude that the actual derivative continues to match its hedged item. By definition, the actual derivative and the hypothetical derivative continue to be identical. As a result, DNH Inc. would record the following journal entries:²⁵⁰

On 1 January 20X1, no entry is required because the fair value of the forward contract is zero at inception.

For the quarter ended 31 March 20X1:

| | | | |
|--|----|-------|----------|
| Forward contract | \$ | 1,338 | |
| Other comprehensive income | | | \$ 1,338 |
| To account for the change in the fair value of the forward contract. | | | |

²⁵⁰ As noted in chapter 4, the use of the hypothetical-derivative method of assessing hedge effectiveness does not result in a hedge mismatch due to changes in the creditworthiness of either party to the derivative contract, as long as performance under the derivative contract is still expected to occur for both the entity and the counterparty. Accordingly, for simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. See chapter 4 for further discussion.

For the quarter ended 30 June 20X1:

| | | | |
|---|----|--------|-----------|
| Forward contract | \$ | 1,341 | |
| Other comprehensive income | | | \$ 1,341 |
| To account for the change in the fair value of the forward contract. | | | |
| Cash | \$ | 2,679 | |
| Forward contract | | | \$ 2,679 |
| To account for cash received on settlement of forward contract. | | | |
| Accounts receivable | \$ | 95,070 | |
| Sales | | | \$ 95,070 |
| To record the sales transaction at the weighted average exchange rate for the month of June. (¥13,500,000/¥142 per \$) | | | |
| Other comprehensive income | \$ | 2,679 | |
| Sales | | | \$ 2,679 |
| To reclassify the amount relating to the hedged item that affected earnings from AOCI to earnings. | | | |

Effect of the hedge on the income statement

The hedging relationship was structured in such a way that it could be assumed to be perfectly effective under the critical terms match method, and no circumstances arose subsequent to inception that called this into question. However, because June sales were recorded at the weighted average exchange rate for June, total sales revenue recorded by the entity (including the effect of the hedging relationship) differs from what sales revenue would have been if it were recognized using the 1/1/20X1 six-month forward rate of \$1: ¥140 (i.e., sales revenue would have been \$96,429 if it were based on the forward rate on the date the hedge was designated). Instead, DNH Inc. reported total yen-denominated sales equivalent to \$97,749, achieved by the combination of the actual revenue measured at the weighted average exchange rate (\$95,070) and the gain on the forward (\$2,679) reclassified from AOCI at the date of the sale.

The hedge had the effect of offsetting changes in the forward rate from the date of designation to 30 June 20X1. However, because revenue was not recognized based on the spot rate in effect on date the forward contract settled (i.e., at the spot rate \$1: ¥144 on 6/30/20X1), this offset was not perfect. Nevertheless, for purposes of assessing hedge effectiveness, the hedging relationship was assumed to be perfectly effective because the hedged sales occurred during the same 31-day period as the maturity of the derivative (in accordance with ASC 815-20-25-84A).

Example 2:

Anticipated intercompany sales hedged with a forward contract using the forward method

Now assume a change in facts from Example 1. Assume that the DNH Inc. parent company does not have the same functional currency as its Japanese subsidiary. The parent uses the US dollar as its functional currency and wants to limit the effect of currency fluctuations on yen-denominated sales to its Japanese subsidiary. The DNH Inc. parent company expects to ship ¥13,500,000 of goods to the Japanese subsidiary on 30 June 20X1. The Japanese subsidiary uses the yen as its functional currency and expects to sell 50% of the inventory received during the quarter ending 30 September 20X1, and the remainder during the fourth calendar quarter. On 1 January 20X1, the DNH Inc. parent company enters into a six-month forward contract to sell ¥13,500,000 and receive \$96,429 on 30 June 20X1 (forward rate \$1: ¥140). The sale to the Japanese subsidiary occurs on 30 June 20X1.

All entries related to the forward contract (excluding the entries affecting sales) will be the same as in Example 1. In addition, on 30 June 20X1, the DNH Inc. parent company will record the following sales transaction (Note: Because this is an intercompany sale, it will be eliminated in consolidation.):

| | | | |
|--|----|--------|-----------|
| Due from Japanese subsidiary | \$ | 93,750 | |
| Sales | | | \$ 93,750 |
| To account for the intercompany sales transaction. (¥13,500,000/¥144 per \$) | | | |

Because no inventory was sold to a third party as of 30 June 20X1, no portion of the AOCI relating to the hedging transaction is reclassified to earnings at that time.

On 30 September 20X1, when the Japanese subsidiary sells 50% of the inventory to a third party, the following entry is made in consolidation (note that the sales recognized by the Japanese subsidiary to third parties in the quarter ending 30 September 20X1 will also be recognized in the consolidated financial statements, translated at the weighted average exchange rates for the months the sales occur):

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 1,340 | |
| Sales | | | \$ 1,340 |

To reclassify from AOCI to earnings the amount relating to the hedged item that affected earnings. Only 50% of the inventory was sold to a third party and only 50% of the gain in OCI balance could be reclassified to earnings. (When the remaining inventory is sold during the fourth quarter, the remaining gain in AOCI can be reclassified to earnings.)

Also, under ASC 830, the intercompany receivable from the subsidiary, denominated in yen, would be remeasured at spot rates with changes in the carrying amount recorded in income as long as it remains outstanding.

Effect of the hedge on the income statement

The hedge was structured in such a way that the hedging relationship was perfect. The above hedge had the effect of locking in intercompany sales at \$96,429 (¥13,500,000/¥140 per US dollar, the forward rate at the date of the hedge designation). The entity protected itself on a consolidated basis from the exchange movements between 1 January and 30 June 20X1. Once the intercompany sale has occurred, the resulting intercompany receivable would separately be eligible for hedge accounting (refer to section 7.9 for additional discussion relating to hedges of foreign-currency-denominated assets and liabilities).

How we see it

It is important to note that the hedging gains deferred in AOCI would be reclassified to earnings in the same period in which the transaction affects the earnings of consolidated DNH Inc. As of 30 September 20X1, only 50% of the inventory was sold to third parties and accordingly only 50% of the accumulated gains in AOCI could be reclassified to earnings.

For the period between 30 June 20X1 and 30 September 20X1, DNH Inc. would not be able to hedge foreign currency exposure due to the forecasted sale because the sale will be made by the Japanese subsidiary, which has no foreign currency exposure because all sales to third parties would be in its functional currency. Even though the reporting currency of the consolidated entity is the US dollar, the forecasted sales do not qualify for cash flow hedge accounting of the foreign currency exposure during this period.

Example 3: Anticipated intercompany royalties hedged with a forward contract using the spot method

M&H Inc. is a distributor of vinyl records throughout the world. M&H Inc. has a subsidiary in Canada and receives one Canadian dollar (CAD) for every record that this subsidiary sells, which is payable semiannually. It forecasts that the Canadian subsidiary will sell 3 million records in the six months ending 30 June 20X1 (500,000 per month and the royalty will be remitted on 30 June 20X1).

M&H Inc. wants to hedge this foreign currency exposure with a cash flow hedge and enters into a six-month forward contract to sell CAD3,000,000 and receive \$2,000,000 on 30 June 20X1 (forward rate \$1: CAD1.50). M&H Inc. further decides to base effectiveness on spot rates. (Refer to the discussion in section 4.8.3.5.1 on the importance of the distinction between basing effectiveness on spot rates and on forward rates.)

The following table summarizes the key assumptions:

| Key assumptions | | | | |
|-----------------|---------------------------------------|-----------------------|------------------------------------|--------------------------------|
| Date | Average spot rate during each quarter | Spot rate CAD per USD | 6/30/20X1 Forward rate CAD per USD | Fair value of forward contract |
| 01/1/20X1 | N/A | 1.55 | 1.50 | \$ - |
| 3/31/20X1 | 1.58 | 1.60 | 1.57 | 87,854 ²⁵¹ |
| 6/30/20X1 | 1.63 | 1.65 | 1.65 | 181,818 ²⁵² |

M&H Inc. documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the transaction is to hedge forecasted royalty receipts against currency fluctuations between the US dollar and the Canadian dollar. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | A six-month forward contract to sell CAD3,000,000 and receive \$2,000,000 on 30 June 20X1. |
| Hedged item | The forward contract is designated as a hedge of the anticipated royalty receipt of CAD3,000,000 relating to the first CAD500,000 sales of records each month during the six-month period ending 30 June 20X1. |
| How hedge effectiveness will be assessed | Effectiveness will be assessed by comparing the changes in the spot rate of the currency underlying the forward contract with the changes in the spot rate of the currency in which the forecasted royalties will be consummated. Since the currencies and notional amounts of the hedging instrument and hedged item are the same, the hedge will be considered perfectly effective. However, because effectiveness is based on spot rates, the initial value of the excluded component will be reflected in earnings in a systematic and rational method in accordance with ASC 815-20-25-83A. The initial value is determined at hedge inception as the spot rate/forward rate difference of \$64,516 ²⁵³ and will be amortized into earnings over the six-month period at \$32,258 each quarter. Any difference between the change in fair value of the excluded component and the quarterly amortization will be recognized in OCI. There will be continuous monitoring that the critical terms of the forecasted transaction do not change, and that there are no adverse developments with respect to counterparty credit risk. |

²⁵¹ $((CAD3,000,000/1.50) - (CAD3,000,000/1.57))/(1.015)$, with 1.5% representing the assumed discount rate for one quarter (6% annualized).

²⁵² $(CAD3,000,000/1.50) - (CAD3,000,000/1.65)$.

²⁵³ $(CAD3,000,000/1.55) - (CAD3,000,000/1.50)$.

M&H Inc. would document its periodic (e.g., at least quarterly) assessment of effectiveness by confirming that the terms of the hedged item and the forward contract remain unchanged and that the creditworthiness of the counterparty to the forward contract has not deteriorated. Assuming such circumstances have not arisen, at each assessment date the entity would conclude that the actual derivative it holds continues to exactly match its hedged item. The following journal entries would be made by M&H Inc.:

On 1 January 20X1, no entry is required because the fair value of the forward contract is zero at inception.

For the quarter ended 31 March 20X1:

| | | |
|--|------------|------------|
| Intercompany receivable | \$ 949,367 | |
| Royalty income | | \$ 949,367 |
| To account for the royalty income on the sale of CAD1,500,000 records by the Canadian subsidiary during the first quarter. (CAD1,500,000/1.58 (average rate during first quarter)) | | |
| Remeasurement gain/loss | \$ 11,867 | |
| Intercompany receivable | | \$ 11,867 |
| To remeasure the intercompany receivable at month end spot rates in accordance with ASC 830. (\$949,367-(CAD1,500,000/1.60)) | | |
| Forward contract | \$ 87,854 | |
| Other comprehensive income | | \$ 87,854 |
| To record the change in fair value of the forward contract in OCI as the hedging relationship is highly effective. | | |
| Other comprehensive income | \$ 11,867 | |
| Remeasurement gain/loss | | \$ 11,867 |
| To reclassify from AOCI to remeasurement gain/loss the portion of the change in fair value of the derivative that relates to the effect of differences between the period end spot rate and the average rate for the quarter on the notional amount of the intercompany receivable. This amount offsets the remeasurement loss recognized on the receivable. (CAD1,500,000/1.60) – (CAD1,500,000/1.58) | | |
| Other comprehensive income | \$ 18,375 | |
| Royalty income | | \$ 18,375 |
| To reclassify from AOCI to royalty income the portion of the change in fair value of the derivative that relates to the differences between the average rate for the quarter and the period beginning spot rate on the sale of CAD1,500,000 records that impacted earnings in the first quarter. (CAD1,500,000/1.58) – (CAD1,500,000/1.55) | | |
| Other comprehensive income | \$ 32,258 | |
| Royalty income | | \$ 19,677 |
| Remeasurement gain/loss | | 12,581 |
| To record the amortization of the initial value of the excluded component into earnings. Note that the difference between the change in the fair value of the excluded component and the amount amortized into earnings is deferred in AOCI. While there may be other approaches, the entity has a policy to allocate the amortization between royalty income and remeasurement gain/loss based on the absolute values of the amounts recognized for the hedged item during the period as follows: | | |

| | |
|---|-----------------------------------|
| Royalty income | \$ 18,375 |
| Remeasurement gain/loss | <u>11,867</u> |
| Total absolute values | \$ 30,242 |
| Percentage allocated to royalty income | $\$18,375/\$30,242 = 61\%$ |
| Percentage allocated to remeasurement gain/loss | $\$11,867/\$30,242 = 39\%$ |
| Amortization allocated to royalty income | $61\% \times \$32,258 = \$19,677$ |
| Amortization allocated to remeasurement gain/loss | $39\% \times \$32,258 = \$12,581$ |

For the quarter ended 30 June 20X1:

| | | |
|--|------------|------------|
| Intercompany receivable | \$ 920,245 | |
| Royalty income | | \$ 920,245 |
| To account for the royalty income on the sale of CAD1,500,000 records by the Canadian subsidiary during the second quarter. (CAD1,500,000/1.63 (average rate during second quarter)) | | |
| Remeasurement gain/loss | \$ 39,563 | |
| Intercompany receivable | | \$ 39,563 |
| To remeasure intercompany receivable at month end spot rates in accordance with ASC 830. ((CAD3,000,000/1.65)-\$949,367+\$11,867-\$920,245) | | |
| Forward contract | \$ 93,964 | |
| Other comprehensive income | | \$ 93,964 |
| To record the entire change in the fair value of the forward contract in OCI as the hedging relationship is highly effective. | | |
| Other comprehensive income | \$ 39,563 | |
| Remeasurement gain/loss | | \$ 39,563 |
| To reclassify from AOCI to remeasurement gain/loss the portion of the change in fair value of the derivative that relates to differences between the period end spot rate and the period beginning spot rate on the period beginning intercompany receivable plus the difference between the period end spot rate and the average rate for the quarter on the amount of royalty income recognized during the second quarter. This amount offsets the remeasurement loss on the receivable. | | |
| Other comprehensive income | \$ 47,497 | |
| Royalty income | | \$ 47,497 |
| To reclassify into earnings the portion of the change in fair value of the derivative since hedge inception related to the sale of CAD1,500,000 records in the second quarter. (CAD1,500,000/1.63) – (CAD1,500,000/1.55) | | |
| Other comprehensive income | \$ 32,258 | |
| Royalty income | | \$ 9,677 |
| Remeasurement gain/loss | | 22,581 |
| To record the amortization of the initial value of the excluded component into royalty income and remeasurement gain/loss based on the absolute values of the amounts recognized for the hedged item during the period as follows: | | |

| | | | |
|---|----|-----------|-----------------------------------|
| Royalty income | \$ | 17,255 | |
| Remeasurement gain/loss | | | <u>39,563</u> |
| Total absolute values | \$ | 56,818 | |
| Percentage allocated to royalty income | | | $\$17,255/\$56,818 = 30\%$ |
| Percentage allocated to remeasurement gain/loss | | | $\$39,563/\$56,818 = 70\%$ |
| Amortization allocated to royalty income | | | $30\% \times \$32,258 = \$9,677$ |
| Amortization allocated to remeasurement gain/loss | | | $70\% \times \$32,258 = \$22,581$ |
| Cash | \$ | 1,818,182 | |
| Intercompany receivable | | | \$ 1,818,182 |
| Receipt of settlement on intercompany receivable. (CAD3,000,000/1.65) | | | |
| Cash | \$ | 181,818 | |
| Forward contract | | | \$ 181,818 |
| Receipt of settlement on forward contract. | | | |

Effect of the hedge on the income statement

This hedge was effective at locking in royalty income at the spot rate at inception of the hedge, \$967,742 (CAD1,500,000/1.55) per quarter, and insulating the entity against remeasurement losses. The total effect on income resulted in \$2,000,000 recorded in earnings, equivalent to the forward exchange rate in place at 1 January. The \$2,000,000 was accounted for as royalty income of \$1,964,838 (\$949,367 + \$18,375 + \$19,677 + \$920,245 + \$47,497 + \$9,677) and a gain of \$35,162 (\$22,581 + \$12,581) allocated to remeasurement gain/loss as a result of the erosion of the premium of the forward contract (i.e., spot/forward difference).

Example 4:

Anticipated sales hedged with an option contract

Roxy Accessories anticipates a sale to a Canadian customer of CAD1,400,000 in six months. On 1 January 20X1, when the spot rate was \$1 to CAD1.40, Roxy obtained an option to sell CAD1,400,000 on 30 June 20X1, for \$979,021 (USD1:CAD1.43). The cost and the fair value of this option agreement at inception were \$32,000. This option will be effective if the US dollar strengthens to a rate of \$1 to CAD1.43 or greater and will not be effective if the US dollar does not strengthen to that level. Roxy has defined its foreign exchange risk as being in just one direction and wants to preserve the upside foreign currency potential if the US dollar weakens versus the Canadian dollar.

In addition, the entity decided to exclude from its assessment of effectiveness the changes in the value of the option due to the time value and amortize the initial value in accordance with ASC 815-20-25-83A. As a result, effectiveness will be based on the changes in the intrinsic value of the option, as measured by the spot rate of the currency underlying the option (e.g., "spot" intrinsic value).

The following tables summarize the key assumptions:

| Key assumptions | | |
|-----------------|-----------------------|-------------------------------------|
| Date | Spot rate CAD per USD | Fair value of option ²⁵⁴ |
| 1/1/20X1 | 1.40 | \$ 32,000 |
| 3/31/20X1 | 1.45 | 30,000 |
| 6/30/20X1 | 1.50 | 45,688 |

²⁵⁴ Derived from an option pricing model; amounts presented here are for purposes of illustration. For simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. Refer to chapter 4 for further discussion.

| Decomposition of option value | | | |
|-------------------------------|----------------------------------|----------------------|----------------------|
| Date | "Spot" intrinsic value of option | Time value of option | Fair value of option |
| 1/1/20X1 | \$ – | \$ 32,000 | \$ 32,000 |
| 3/31/20X1 | 13,504 ²⁵⁵ | 16,496 | 30,000 |
| 6/30/20X1 | 45,688 ²⁵⁶ | – | 45,688 |

Roxy's hedge documentation is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge transaction is to hedge the downside foreign exchange risk associated with a probable sale denominated in CAD against fluctuations between the US dollar and Canadian dollar. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | Option to sell CAD1,400,000 on 30 June 20X1 for \$979,021 (USD1:CAD1.43) |
| Hedged item | The option is designated as a hedge of a probable sales transaction of CAD1,400,000 forecasted to occur on 30 June 20X1. |
| How hedge effectiveness will be assessed | Changes in the fair value of the option other than "intrinsic value" (e.g., time value) are excluded from the assessment of effectiveness. Because the critical terms of the option contract and the anticipated transaction coincide (e.g., currency, notional amount and timing), the intrinsic value of the option is expected to completely offset changes in the expected cash flows for the risk being hedged (i.e., the risk that the US dollar strengthens against the Canadian dollar). Therefore, the effectiveness of the hedging relationship will be periodically assessed during the life of the hedge by comparing the terms of the option and the forecasted sale to ensure that they continue to coincide and through an evaluation of the continued ability of the counterparty to honor its obligation under the option. Should the critical terms no longer match exactly, hedge effectiveness (both prospective and retrospective) will be assessed by evaluating the dollar-offset ratio of the spot intrinsic value of the actual option contract and a hypothetically perfect option contract. The initial value of the excluded component is equal to the option premium of \$32,000 and will be recognized in earnings using the amortization approach described in ASC 815-20-25-83A. Management has determined that amortizing the initial premium on a straight-line basis over the hedging period represents a systematic and rational method to recognize this amount in earnings. |

Roxy would record the following journal entries:

On 1 January 20X1:

| | | |
|------------------|-----------|-----------|
| Purchased option | \$ 32,000 | |
| Cash | | \$ 32,000 |

To record the cost incurred to purchase the option contract.

For the quarter ended 31 March 20X1:

| | | |
|----------------------------|-----------|-----------|
| Sales | \$ 16,000 | |
| Other comprehensive income | | \$ 14,000 |
| Purchased option | | 2,000 |

To account for the change in fair value of the option contract and recognize the amortization of the initial value of the excluded component into sales (i.e., the income statement line item used to present the earnings effect of the hedged item). AOCI includes the change in fair value of the derivative due to spot changes of \$13,504 plus the difference of \$496 between the change in fair value of the excluded component (\$15,504) and the amount amortized into earnings (\$16,000).

²⁵⁵ (CAD1,400,000/1.43) – (CAD1,400,000/1.45).

²⁵⁶ (CAD1,400,000/1.43) – (CAD1,400,000/1.50).

For the quarter ended 30 June 20X1:

| | | | |
|----------------------------|----|--------|-----------|
| Purchased option | \$ | 15,688 | |
| Sales | | 16,000 | |
| Other comprehensive income | | | \$ 31,688 |

To account for the change in fair value of the option contract and recognize the amortization of the initial value of the excluded component. The cumulative balance now in AOCI represents only the changes due to intrinsic value of \$45,688 (since the cumulative change in the option's time value of (\$32,000) has been recorded in earnings through the amortization process).

| | | | |
|------------------|----|--------|-----------|
| Cash | \$ | 45,688 | |
| Purchased option | | | \$ 45,688 |

To record the cash received upon exercise of the option.

| | | | |
|---------------------|----|---------|------------|
| Accounts receivable | \$ | 933,333 | |
| Sales | | | \$ 933,333 |

To account for the sales transaction, at the prevailing spot exchange rate. (CAD1,400,000/1.5). Although the example does not illustrate this, once the receivable has been recognized, it would be separately eligible for hedge accounting (refer to section 7.9, which addresses hedging of foreign-currency-denominated assets and liabilities).

| | | | |
|----------------------------|----|--------|-----------|
| Other comprehensive income | \$ | 45,688 | |
| Sales | | | \$ 45,688 |

To reflect the effect of the hedge as the hedged transaction affects earnings.

Effect of the hedge on the income statement

As a result of the hedge, on 30 June 20X1 Roxy records sales of \$979,021 (\$933,333 + \$45,688) or CAD1,400,000/1.43. Roxy was thus effective in hedging the anticipated sales transaction at an exchange rate of CAD1.43 to the US dollar. However, Roxy expensed the \$32,000 option premium over the life of the hedge to achieve this objective. This amount was also presented in sales, the same income statement line that is used to present the earnings effect of the hedged item in accordance with ASC 815-20-45-1A. As a result, the cumulative amount recorded in sales for the six-month period ended 30 June 20X1 related to this transaction was \$947,021 (\$979,021 - \$32,000). The increase in the fair value of the option over the premium paid to purchase it was \$13,688 (\$45,688 - \$32,000).

7.6 Foreign currency fair value hedges

7.6.1 Qualifying criteria specific to foreign currency fair value hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Items in Fair Value Hedges of Foreign Exchange Risk

815-20-25-37

This paragraph identifies possible hedged items in fair value hedges of foreign exchange risk. If every applicable criterion is met, all of the following are eligible for designation as a hedged item in a fair value hedge of foreign exchange risk...

ASC 815 allows foreign currency fair value hedges of only an unrecognized firm commitment or a recognized asset or liability (including an available-for-sale debt security) that is denominated in a nonfunctional currency. Although the guidance generally prohibits hedge accounting if the related asset or liability is or will be measured at fair value with changes in fair value reported in earnings, it acknowledges that the remeasurement of foreign-currency-denominated assets and liabilities in accordance with ASC 830 at the spot exchange rate does not constitute a measurement at fair value. (Refer to section 7.9 for additional discussion on these types of hedges.)

To qualify as a fair value hedge of a foreign currency exposure, the hedge must comply with all the general hedge requirements and all the fair value hedge requirements discussed in chapters 4 and 5, as well as all the specific requirements included in this section. In addition, qualification for a fair value hedge requires that the hedged transaction be denominated in a currency other than the hedging unit's functional currency. Absent this condition, there would not be foreign exchange risk that would impact earnings for financial reporting purposes. Finally, to qualify as a fair value hedge, the operating unit (or another entity in the consolidated group that has the same functional currency when there are no intervening entities that have a different functional currency) that has the exposure must be a party to the hedging instrument.

7.6.1.1

Unrecognized firm commitments

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Items in Fair Value Hedges of Foreign Exchange Risk

815-20-25-37

This paragraph identifies possible hedged items in fair value hedges of foreign exchange risk. If every applicable criterion is met, all of the following are eligible for designation as a hedged item in a fair value hedge of foreign exchange risk:

- d. Unrecognized firm commitment. Paragraph 815-20-25-58 states that a derivative instrument or a nonderivative financial instrument that may give rise to a foreign currency transaction gain or loss under Topic 830 can be designated as hedging changes in the fair value of an unrecognized firm commitment, or a specific portion thereof, attributable to foreign currency exchange rates.

Master Glossary

Firm Commitment

An agreement with an unrelated party, binding on both parties and usually legally enforceable, with the following characteristics:

- a. The agreement specifies all significant terms, including the quantity to be exchanged, the fixed price, and the timing of the transaction. The fixed price may be expressed as a specified amount of an entity's functional currency or of a foreign currency. It may also be expressed as a specified interest rate or specified effective yield. The binding provisions of an agreement are regarded to include those legal rights and obligations codified in the laws to which such an agreement is subject. A price that varies with the market price of the item that is the subject of the firm commitment cannot qualify as a fixed price. For example, a price that is specified in terms of ounces of gold would not be a fixed price if the market price of the item to be purchased or sold under the firm commitment varied with the price of gold.
- b. The agreement includes a disincentive for nonperformance that is sufficiently large to make performance probable. In the legal jurisdiction that governs the agreement, the existence of statutory rights to pursue remedies for default equivalent to the damages suffered by the nondefaulting party, in and of itself, represents a sufficiently large disincentive for nonperformance to make performance probable for purposes of applying the definition of a firm commitment.

Hedging unrecognized foreign-denominated firm commitments differs from other unrecognized firm commitments because ASC 815 allows entities to hedge changes in the fair value of the firm commitment attributable to foreign currency exchange rates using either derivative or *nonderivative* financial instruments as the hedging instruments. In order for the nonderivative financial instrument to qualify as a hedging instrument of foreign currency risk associated with an unrecognized foreign-denominated firm commitment:

- ▶ The nonderivative financial instrument must be exposed to foreign currency risk that may give rise to foreign currency transaction gains or losses under ASC 830.
- ▶ The nonderivative financial instrument has to be designated as a hedge of the changes in the fair value of an unrecognized firm commitment or a specific portion thereof.
- ▶ The designated hedging relationship has to meet all the fair value hedge criteria as discussed in chapters 4 and 5.

Because entities were allowed to hedge changes in the fair value of unrecognized foreign-denominated firm commitments attributable to foreign currency exchange rates under Statement 52, the FASB decided to continue this practice under Statement 133. However, an expanded definition of a firm commitment was also provided that requires all significant terms of an agreement (quantity, price, timing) to be established.

It should also be noted that while the fixed price may be stated in terms of a foreign currency, to qualify as a firm commitment, the price may not be based on an index or expressed in terms of the price or number of units of an asset other than a currency.

Some contracts will not meet the definition of a firm commitment in ASC 815. Examples include contracts that establish a price per unit or quantity of units to be exchanged, but not both; contracts that fail to provide for the specific timing of the transaction; and intercompany contracts. Although these contracts will not be eligible for fair value hedge accounting treatment, they are eligible to be considered for cash flow hedge accounting as previously discussed in this chapter.

In addition to being exposed to changes in fair value, an unrecognized firm commitment denominated in a foreign currency also has a variable cash flow exposure because the future functional currency cash flows are dependent on the exchange rate at the date of the transaction. The FASB, in ASC 815-20-25-42 and related examples, therefore concluded that an entity may choose to hedge an exposure of a firm commitment to foreign currency risk under the cash flow hedging model even though the agreement meets ASC 815's definition of a firm commitment. As a result, an entity that has a foreign-currency-denominated firm commitment can choose to treat a hedge as either a fair value or a cash flow hedge.

For example, on 1 January an entity enters into an agreement to sell 1,000 tons of a nonfinancial asset to an unrelated party on 30 June. The agreement meets the definition of a firm commitment provided by ASC 815. The firm commitment is denominated in the buyer's functional currency, which is not the seller's functional currency. Accordingly, the firm commitment exposes the seller to foreign currency risk. The seller may hedge the foreign currency exposure arising from the firm commitment under the cash flow hedging model, even though the firm commitment is eligible to be designated under the fair value hedging model. The seller may prefer the cash flow hedging model, for example, because as long as the hedging instrument is highly effective at offsetting the hedged risk, any mismatch will be reported in AOCI until the hedged transaction affects earnings. The seller may also not want to show an asset or liability on the balance sheet representing the firm commitment. In other cases, entities may prefer the fair value hedge accounting approach to avoid the recognition of the entire change in the fair value of the hedging instrument included in the assessment of hedge effectiveness in OCI and its long-term amortization to income (e.g., a firm commitment to purchase a long-term asset such as a machine).

Conversely, if an agreement does not meet ASC 815's definition of a firm commitment, even though it contains a fixed foreign-currency-denominated price, an entity may not hedge the foreign currency risk arising from the agreement under the fair value hedging model. In such a situation, any hedge will need to be treated as a cash flow hedge.

Similar to other fair value hedges, the derivative instrument that qualifies in a fair value hedging relationship is carried on the balance sheet at fair value, as are changes in the fair value of the firm commitment attributable to the hedged foreign exchange risk. The gain or loss on the hedging derivative included in the assessment of effectiveness (or the transaction gain or loss from a nonderivative instrument in a hedging relationship) and the offsetting loss or gain on the hedged firm commitment would be recognized currently in earnings. Note that if a nonderivative is the hedging instrument, it is not truly carried at fair value but rather remeasured under ASC 830 based on the increase or decrease in functional currency cash flows attributable to the change in spot exchange rates between the functional currency and the currency in which the nonderivative hedging instrument is denominated. (Refer to chapter 5 for the relevant accounting guidance relating to fair value hedges of firm commitments. Also note that this accounting will result in an asset or liability being recorded for the unrecognized firm commitment. The amount of the asset or liability will be the foreign exchange gain or loss that is recorded in income as a result of the hedging relationship. The resulting asset or liability will eventually be treated as a part of the consideration when the firm commitment contract is eventually completed.)

7.6.1.2

Available-for-sale debt securities

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Items in Fair Value Hedges of Foreign Exchange Risk

815-20-25-37

This paragraph identifies possible hedged items in fair value hedges of foreign exchange risk. If every applicable criterion is met, all of the following are eligible for designation as a hedged item in a fair value hedge of foreign exchange risk:

- b. Available-for-sale debt security. A derivative instrument can be designated as hedging the changes in the fair value of an available-for-sale debt security (or a specific portion thereof) attributable to changes in foreign currency exchange rates. The designated hedging relationship qualifies for the accounting specified in Subtopic 815-25 if all the fair value hedge criteria in this Section (including the conditions in paragraph 815-20-25-30(a) through (b)) are met.

Only derivative instruments can be designated to hedge the changes in fair value of an available-for-sale debt security or a specific portion thereof. Nonderivative instruments cannot be treated as hedging instruments for available-for-sale debt securities.

The accounting for available-for-sale debt securities falls under ASC 320, which requires that available-for-sale debt securities be reported at fair value with unrealized gains or losses excluded from earnings and reported in AOCI. ASC 815 changes this accounting and requires that the change in fair value of the hedged available-for-sale debt security attributable to the risk being hedged be reported in earnings and not in AOCI in order to achieve appropriate matching in earnings with the changes in the fair value of the derivative in a fair value hedge.

It is important to note that only the portion of the change in fair value of the available-for-sale debt security attributable to the hedged risk (e.g., changes in the foreign exchange rate) should be accounted for in earnings; all other changes in fair value of the available-for-sale debt security attributable to other factors should still be accounted for as provided by ASC 320.

In addition, as discussed in chapter 4, equity investments accounted for in accordance with ASC 321 may not be designated as a hedged item in either a fair value or cash flow hedging relationship. As a result, entities are precluded from hedging foreign exchange risk (or any other risk) for any equity security that is accounted for under ASC 321, including those equity securities that are accounted for using the measurement alternative provided in ASC 321.

7.6.1.3 Partial-term hedges

As discussed in chapter 5, ASC 815 permits entities to hedge selected fixed-rate payments in a fair value hedge of interest rate risk (referred to as partial-term hedges) by allowing entities to calculate the change in the fair value of the hedged item using an assumed term that begins when the first hedged cash flow begins to accrue and ends when the last hedged cash flow is due and payable.

While the measurement guidance in ASC 815-25-35-13B is limited solely to changes in the fair value of the hedged item due to changes in interest rate risk, it is applicable to hedges of only interest rate risk as well as hedges of both interest rate risk and foreign exchange risk. For example, consider a US Dollar functional currency entity that issues a 10-year fixed-rate, euro-denominated debt instrument and wishes to hedge both the interest rate risk and foreign exchange risk associated with the fixed-rate payments occurring in the instrument's first five years. Since this is a fair value hedge of both interest rate risk and foreign exchange risk, the entity would first measure the change in the fair value of the euro-denominated debt for changes in euro interest rates only, using an assumed term of five years (i.e., assuming that the euro-denominated debt matured in year five). Once the hedged item has been adjusted for changes in interest rate risk, the change in carrying value of the debt instrument attributable to foreign exchange risk would be measured based on changes in the foreign currency spot rate in accordance with ASC 830 (as required by 815-25-35-18).

How we see it

In addition, an entity may effectively achieve partial-term hedge accounting for a fair value hedge of only foreign exchange risk, if it elects to exclude the change in fair value of the hedging instrument related to both time value and cross-currency basis spread from the assessment of hedge effectiveness.

For example, consider an entity that issues a 10-year foreign-currency-denominated floating-rate debt instrument and wishes to hedge its foreign currency exposure related to the variable interest cash flows in years one through five. In order to accomplish this, the entity enters into a five-year receive foreign variable-rate, pay functional variable-rate cross-currency interest rate swap which effectively converts the foreign-currency variable-rate interest payments in years one through five to functional-currency variable-rate interest payments. In this case, as discussed further in section 7.9.2.2 below, the entity would be precluded from applying cash flow hedge accounting by the guidance in ASC 815-20-25-39 since all of the variability in the hedged item's functional-currency-equivalent cash flows is not eliminated by the hedge (i.e., the variability related to interest rate risk remains). Instead, the entity would need to apply fair value hedge accounting to this relationship.

If the entity elected to exclude the change in fair value of the cross-currency swap related to both time value and cross-currency basis spread from the assessment of hedge effectiveness, the hedging relationship would likely be highly effective (assuming the notional amount, currency and floating rate index on the receive-leg of the swap matched that in the debt). The fact that the debt matures in 10 years while the swap matures in five, would not impact the effectiveness of the hedging relationship since time value is excluded from the assessment of hedge effectiveness. The change in spot rate on the hedging instrument would offset the foreign currency transaction gain or loss on the debt measured in accordance with ASC 830. In addition, under the amortization approach, the entity could recognize the initial value of the excluded components using a systematic and rational method based on the swap's natural accrual process.

7.7 Example of foreign currency fair value hedge

The following example illustrates the accounting for a foreign currency fair value hedge:

Example 5: Firm commitment hedged using a forward contract

On 1 January 20X1, Roxy Accessories entered into an agreement to buy 1,000 watches from Galaxy Watches for 5,000 Swiss francs (SF) per watch to be delivered on 31 March 20X1. The contract met the requirements of a firm commitment and Roxy Accessories' functional currency is the US dollar. The resulting payable was expected to be settled on 30 April 20X1. One month later, Roxy decided to hedge the foreign currency exposure and, on 1 February 20X1, acquired a forward contract to exchange \$3,500,000 for SF5,000,000 on 30 April 20X1 (forward rate of SF1.429:USD1). This forward contract was designated as a hedge of the firm commitment and effectiveness will be assessed based on the forward rates.

The following table summarizes the key assumptions:

| Key assumptions | | | | | |
|-----------------|-------------------------|--|--|--|-------------------------|
| Date | Spot rate SF per USD | Forward rate of contract expiring 4/30/20X1 SF per USD | Difference between future cash flows from forward contract and current forward rate | Fair value of forward contract asset (discounted at 6%) ²⁵⁷ | Change in fair value |
| 1/01/20X1 | 1.450 | – | \$ – | \$ – | \$ – |
| 2/01/20X1 | 1.400 | 1.429 | – ²⁵⁸ | – | – |
| 2/28/20X1 | 1.400 | 1.415 | 33,569 ²⁵⁹ | 33,233 | 33,233 |
| 3/31/20X1 | 1.410 | 1.400 | 71,429 ²⁶⁰ | 71,071 | 37,838 |
| 4/30/20X1 | 1.360 | 1.360 | 176,471 ²⁶¹ | 176,471 | 105,400 |

Roxy's documentation of the hedging relationship is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge transaction is to hedge the change in the fair value of the firm commitment caused by foreign exchange fluctuations between the US dollar and Swiss franc. |
| Date of designation | 1 February 20X1 |
| Hedging instrument | Forward contract to buy SF5,000,000 at forward rate of SF1.429 for each US dollar on 30 April 20X1. |
| Hedged item | The forward contract is designated as a hedge of the firm commitment to purchase 1,000 watches at SF5,000 per watch on 31 March 20X1. |

²⁵⁷ For simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. Changes in the fair value of the forward contract due to changes in the creditworthiness of the parties to the contract would impact earnings as the change in fair value of the actual forward is recorded through earnings and the change in fair value of the hedged item (the firm commitment) will not have an adjustment due to changes in the creditworthiness of the parties to the contract.

²⁵⁸ The 1 February 20X1 forward rate for 30 April 20X1 equals the forward contract rate, and the fair value is zero.

²⁵⁹ (SF5,000,000/1.415) – 3,500,000.

²⁶⁰ (SF5,000,000/1.40) – 3,500,000.

²⁶¹ (SF5,000,000/1.36) – 3,500,000.

| | |
|---|---|
| How hedge effectiveness will be assessed | <p>Hedge effectiveness (both prospective and retrospective) will be assessed based on a comparison of the overall changes in fair value of the forward contract (i.e., based on changes in the 30 April 20X1 forward price) and changes in the fair value of the firm commitment (also based on changes in the forward price) due to changes in foreign exchange, as expressed by a cumulative dollar-offset ratio. The entity will assess effectiveness based on changes in the forward price.</p> <p>At inception, because the critical terms of the forward contract and firm commitment coincide (such as currency, notional amount and timing), the entity expects the hedge to be highly effective against changes in the overall fair value of the firm commitment. However, the hedge cannot be presumed to be perfectly effective due to changes in the credit risk of both counterparties in the fair value measurement of the forward contract, which are not offset in the hedged item. This nonperformance risk needs to be considered in the assessment of hedge effectiveness. (See discussion of hedge effectiveness in chapter 4.) The hedge meets the criteria for a fair value hedge of a firm commitment.</p> |
|---|---|

The following journal entries would be recorded by Roxy:

On 1 January 20X1, no entry is required because the firm commitment is not yet hedged – only changes in fair value of firm commitments that are part of a fair value hedging relationship are recorded in the financial statements.

On 1 February 20X1, no entry is required. The fair value of the firm commitment should be recorded only when there is a change in fair value subsequent to the hedge designation date. Any changes in the fair value of the firm commitment before designation date are not recorded. Further, the forward contract has no value at its inception.

For the month ended 28 February 20X1:

| | | |
|--------------------|-----------|-----------|
| Forward contract | \$ 33,233 | |
| Cost of goods sold | | \$ 33,233 |

To record the change in the fair value of the forward contract in the same income statement line that is used to present the earnings effect of the hedged item in accordance with ASC 815-20-45-1A.

| | | |
|-------------------------------|-----------|-----------|
| Cost of goods sold | \$ 33,233 | |
| Fair value of firm commitment | | \$ 33,233 |

To record the change in the fair value of the firm commitment. (Note: Only the *change* in the fair value of the firm commitment since the hedge inception (1 February 20X1) is recorded.)

For the month ended 31 March 20X1:

| | | |
|--------------------|-----------|-----------|
| Forward contract | \$ 37,838 | |
| Cost of goods sold | | \$ 37,838 |

To record the change in the fair value of forward contract.

| | | |
|-------------------------------|-----------|-----------|
| Cost of goods sold | \$ 37,838 | |
| Fair value of firm commitment | | \$ 37,838 |

To record the change in the fair value of firm commitment.

| | | |
|------------------|--------------|--------------|
| Inventory | \$ 3,546,099 | |
| Accounts payable | | \$ 3,546,099 |

To record the purchase of inventory at the prevailing exchange rate at 31 March 20X1 (SF5,000,000/1.41).

| | | | |
|-------------------------------|----|--------|-----------|
| Fair value of firm commitment | \$ | 71,071 | |
| Inventory | | | \$ 71,071 |

To adjust the inventory value to reflect the hedge of the firm commitment.

In addition, as a result of the settlement of the firm commitment and recognition of inventory, the fair value hedging relationship terminates.

For the month ended 30 April 20X1:

| | | | |
|----------------------|----|---------|------------|
| Forward contract | \$ | 105,400 | |
| Other income/expense | | | \$ 105,400 |

To record the change in the fair value of the forward contract in other income/expense in accordance with the entity's existing presentation policy for derivatives not designated in hedging relationships.

| | | | |
|---|----|---------|------------|
| Loss on transaction remeasurement of accounts payable | \$ | 130,372 | |
| Accounts payable | | | \$ 130,372 |

To remeasure the carrying amount of accounts payable at the prevailing spot rate in accordance with ASC 830. ((SF5,000,000/1.36) – 3,546,099).

| | | | |
|------------------|----|-----------|--------------|
| Accounts payable | \$ | 3,676,471 | |
| Cash | | | \$ 3,676,471 |

To record the payment of the accounts payable. (SF5,000,000/1.36).

| | | | |
|------------------|----|---------|------------|
| Cash | \$ | 176,471 | |
| Forward contract | | | \$ 176,471 |

To record the net settlement of the forward contract.

Effect of the hedge on the income statement

Even though the ultimate settlement of the accounts payable was not designated as the hedged item, an economic hedge does exist for the period the accounts payable exists from 31 March to 30 April 20X1. The transaction loss on the remeasurement of the payable of \$130,372 is substantially offset by the gain from the forward contract of \$105,400 during the month of April. The inventory is carried at \$3,475,028, \$24,972 less than the final net cash outflow of \$3,500,000 (when considering the settlement of the forward). Roxy experienced a net loss of \$24,972 during April caused by the convergence between the forward rate (upon which the derivative's fair value is based) and the spot rate (upon which the accounts payable remeasurement is based). It is important to note that Roxy has the option of designating the final settlement of the accounts payable as the hedged item (refer to Example 8, which illustrates the accounting for this type of hedge designation).

Roxy also has the option to designate a nonderivative financial instrument as a hedge of the unrecognized firm commitment. The accounting for this hedging transaction will be similar to the above example except that there will be no entry relating to the forward contract. The nonderivative financial instrument will be included in earnings through the normal remeasurement process as required by ASC 830. In this case, Roxy would have likely decided to assess effectiveness by reference to the change in the spot rate so as to avoid income statement volatility.

7.8 Intercompany derivative contracts – general principles

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Intra-Entity Derivatives

815-20-25-52

A foreign currency derivative instrument that has been entered into with another member of a consolidated group can be a hedging instrument in any of the following hedging relationships only if that other member of the consolidated group has entered into an offsetting contract with an unrelated third party to hedge the exposure it acquired from issuing the derivative instrument to the affiliate that initiated the hedge:

- a. A fair value hedge
- b. A cash flow hedge of a recognized foreign-currency-denominated asset or liability
- c. A net investment hedge in the consolidated financial statements.

815-20-25-54

An intra-entity derivative can be designated as a hedging instrument in consolidated financial statements if condition (a) is met and either condition (b) or (c) is met:

- a. The hedged risk is either of the following:
 1. The risk of changes in fair value or cash flows attributable to changes in a foreign currency exchange rate
 2. The foreign exchange risk for a net investment in a foreign operation.
- b. In a fair value hedge or in a cash flow hedge of a recognized foreign-currency-denominated asset or liability or in a net investment hedge in the consolidated financial statements the counterparty (that is, the other member of the consolidated group) has entered into a contract with an unrelated third party that offsets the intra-entity derivative completely, thereby hedging the exposure it acquired from issuing the intra-entity derivative to the affiliate that designated the hedge.
- c. In a foreign currency cash flow hedge of a forecasted borrowing, purchase, or sale or an unrecognized firm commitment the counterparty has entered into a derivative instrument with an unrelated third party to offset the exposure that results from that **internal derivative** or, if the conditions in paragraphs 815-20-25-62 through 25-63 are met, entered into derivative instruments with unrelated third parties that would offset, on a net basis for each foreign currency, the foreign exchange risk arising from multiple internal derivative instruments.

Generally, intercompany transactions and balances are eliminated in the consolidated financial statements. Therefore, under US GAAP, if an entity entered into a derivative contract with another member of its consolidated group (e.g., a central treasury operation), the intercompany derivative would be eliminated in the consolidated financial statements and, therefore, would not serve as a hedge of the operating units' exposure.

ASC 815 provides an exception to this general principle by indicating that a foreign currency derivative instrument entered into with another member of a consolidated group could be a hedging instrument in the consolidated financial statements. This exception applies when another member of the consolidated group has entered into a one-to-one offsetting contract with an unrelated third party. It also applies to

some situations where those internal derivatives are offset by unrelated third-party contracts on a net basis and the member of the consolidated group using the intercompany derivative as a hedging instrument satisfies the criteria for foreign currency cash flow hedge accounting.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedging Instruments in Fair Value Hedges Involving Foreign Exchange Risk

815-20-25-60

An entity may designate an intra-entity loan or other payable as the hedging instrument in a foreign currency fair value hedge of an unrecognized firm commitment and qualify for hedge accounting in the consolidated financial statements. That designation is consistent with the ability under paragraphs 815-20-25-58 through 25-59 to designate nonderivative instruments as hedging instruments in foreign currency fair value hedges of firm commitments. However, hedge accounting in the consolidated financial statements shall only be applied if the member of the consolidated entity that is the counterparty to the intra-entity loan has entered into a third-party contract that offsets the foreign exchange exposure of that entity's intra-entity loan receivable. That is, the requirement in paragraphs 815-20-25-28 through 25-29 that an intra-entity derivative instrument designated as a hedging instrument in a foreign currency fair value hedge be offset by a third-party contract would also apply to intra-entity nonderivative instruments designated as hedging instruments. To remain consistent with the notion that the intra-entity contract is simply a conduit for the third-party exposure, an intra-entity loan designated as a hedging instrument shall be offset by a third-party loan (that is, it shall not be offset by a derivative instrument). Hedge accounting shall be applied in consolidation only to those gains and losses occurring during the period that the offsetting third-party loan is in place.

Internal Derivatives as Hedging Instruments in Cash Flow Hedges of Foreign Exchange Risk

815-20-25-61

An internal derivative can be a hedging instrument in a foreign currency cash flow hedge of a forecasted borrowing, purchase, or sale or an unrecognized firm commitment in the consolidated financial statements only if both of the following conditions are satisfied:

- a. From the perspective of the member of the consolidated group using the derivative instrument as a hedging instrument (the hedging affiliate), the criteria for foreign currency cash flow hedge accounting otherwise specified in this Section are satisfied.
- b. The member of the consolidated group not using the derivative instrument as a hedging instrument (the issuing affiliate) either:
 1. Enters into a derivative instrument with an unrelated third party to offset the exposure that results from that internal derivative
 2. If the conditions in paragraphs 815-20-25-62 through 25-63 are met, enters into derivative instruments with unrelated third parties that would offset, on a net basis for each foreign currency, the foreign exchange risk arising from multiple internal derivative instruments. In complying with this guidance the issuing affiliate could enter into a third-party position with neither leg of the third-party position being the issuing affiliate's functional currency to offset its exposure if the amount of the respective currencies of each leg are equivalent with respect to each other based on forward exchange rates.

815-20-25-62

If an issuing affiliate chooses to offset exposure arising from multiple internal derivatives on an aggregate or net basis, the derivative instruments issued to hedging affiliates shall qualify as cash flow hedges in the consolidated financial statements only if all of the following conditions are satisfied:

- a. The issuing affiliate enters into a derivative instrument with an unrelated third party to offset, on a net basis for each foreign currency, the foreign exchange risk arising from multiple internal derivatives.
- b. The derivative instrument with the unrelated third party generates equal or closely approximating gains and losses when compared with the aggregate or net losses and gains generated by the derivative instruments issued to affiliates.
- c. Internal derivatives that are not designated as hedging instruments are excluded from the determination of the foreign currency exposure on a net basis that is offset by the third-party derivative instrument. Nonderivative contracts shall not be used as hedging instruments to offset exposures arising from internal derivatives.
- d. Foreign currency exposure that is offset by a single net third-party contract arises from internal derivatives that mature within the same 31-day period and that involve the same currency exposure as the net third-party derivative instrument. The offsetting net third-party derivative instrument related to that group of contracts shall meet all of the following criteria:
 1. It offsets the aggregate or net exposure to that currency.
 2. It matures within the same 31-day period.
 3. It is entered into within three business days after the designation of the internal derivatives as hedging instruments.
- e. The issuing affiliate meets both of the following conditions:
 1. It tracks the exposure that it acquires from each hedging affiliate.
 2. It maintains documentation supporting linkage of each internal derivative and the offsetting aggregate or net derivative instrument with an unrelated third party.
- f. The issuing affiliate does not alter or terminate the offsetting derivative instrument with an unrelated third party unless the hedging affiliate initiates that action.

815-20-25-63

If the issuing affiliate alters or terminates any offsetting third-party derivative (which should be rare), the hedging affiliate shall prospectively cease hedge accounting for the internal derivatives that are offset by that third-party derivative instrument.

The netting exception in ASC 815-20-25-61(b)(2) is intended to accommodate the practice employed by many organizations of managing risk on a centralized basis (i.e., a centralized treasury function). That practice involves transferring risk exposures assumed by various affiliates to a treasury center through internal derivative contracts that are designated as hedging instruments by the affiliates. These risk exposures assumed by the treasury center are offset by contracts with unrelated third parties on a net basis, rather than individually.

However, it is important to note that this netting exception does not extend to hedges of net investments in foreign operations or intercompany derivatives designated either as foreign currency fair value hedges or foreign currency cash flow hedges of recognized foreign-currency-denominated assets or liabilities (as permitted

by ASC 815-20-25-28a and 25-28b). When an entity applies hedge accounting to intercompany derivatives designated as hedges of those hedged items in the consolidated financial statements, the intercompany derivatives must be offset by third-party contracts on an individual basis rather than on a net basis.²⁶²

The FASB also decided not to allow intercompany derivative contracts to be designated as hedging instruments in the consolidated financial statements in fair value or cash flow hedges of interest rate risk, credit risk or the risk of changes in overall fair value or cash flows.

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Intra-entity Derivatives

815-20-25-46A

There is no requirement in this Subtopic that the operating unit with the interest rate, market price, or credit risk exposure be a party to the hedging instrument. Thus, for example, a parent entity's central treasury function can enter into a derivative instrument with a third party and designate it as the hedging instrument in a hedge of a subsidiary's interest rate risk for purposes of the consolidated financial statements. However, if the subsidiary wishes to qualify for hedge accounting of the interest rate exposure in its separate-entity financial statements, the subsidiary (as the reporting entity) shall be a party to the hedging instrument, which can be an intra-entity derivative obtained from the central treasury function. Thus, an intra-entity derivative for interest rate risk can qualify for designation as the hedging instrument in separate-entity financial statements but not in consolidated financial statements. (As used in this guidance, the term *subsidiary* refers only to a consolidated subsidiary. This guidance shall not be applied directly or by analogy to an equity method investee.)

815-20-25-46B

An intra-entity derivative shall not be designated as the hedging instrument if the hedged risk is any of the following:

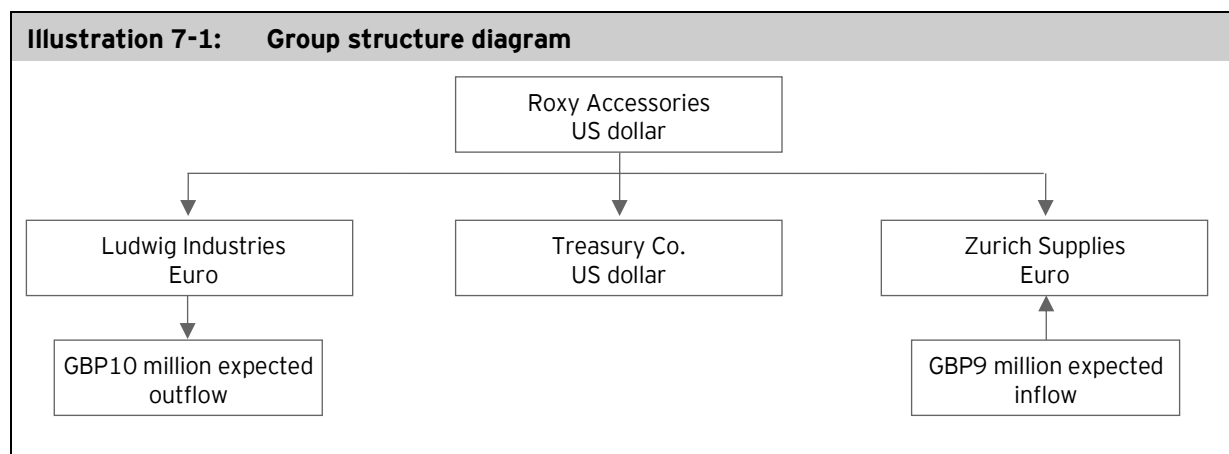
- a. The risk of changes in the overall fair value or cash flows of the entire hedged item or transaction
- b. The risk of changes in hedged item's or transaction's fair value attributable to changes in the designated benchmark interest rate or cash flows attributable to changes in the contractually specified interest rate or designated benchmark interest rate
- c. The risk of changes in hedged item's or transaction's fair value or cash flows attributable to changes in credit risk.
- d. The risk of variability in cash flows attributable to changes in a contractually specified component to purchase or sell a nonfinancial asset.

Similarly, a derivative instrument contract between operating units within a single legal entity shall not be designated as the hedging instrument in a hedge of those risks. Only a derivative instrument with an unrelated third party can be designated as the hedging instrument in a hedge of those risks in consolidated financial statements.

While intercompany derivative contracts may not be designated as hedging instruments in the consolidated financial statements in a hedge of the risks described in ASC 815-20-25-46B(a) through (d) above, an entity may use intercompany derivatives as a mechanism for centralizing exposure or as hedging instruments in separate standalone subsidiary financial statements.

²⁶² See ASC 815-20-25-54(b) and 25-64.

For example, assume Roxy Accessories has 100% interests in Treasury Co. (whose functional currency is the US dollar), Ludwig Industries (whose functional currency is the euro) and Zurich Supplies (whose functional currency is also the euro). On 1 January 20X1, Ludwig Industries has a forecasted foreign-currency-denominated transaction that it expects to result in an outflow of GBP10 million on 30 June 20X1, and Zurich Supplies has a forecasted foreign-currency-denominated transaction that it expects to result in an inflow of GBP9 million on 30 June 20X1. The structure of the group and these forecasted transactions are summarized below:



Both Ludwig and Zurich enter into derivative contracts with Treasury Co. to hedge their exposures. If all of the criteria in ASC 815-20-25-62 and the general hedge accounting criteria have been met, Treasury Co. can offset the net exposure of GBP1 million with an unrelated third-party contract and qualify to apply hedge accounting on a consolidated basis to both the GBP9 million and GBP10 million exposures.

However, if the criteria are not met, ASC 815 would require Treasury Co. to enter into offsetting contracts for both internal derivative contracts that hedge the expected outflow of GBP10 million and the expected inflow of GBP9 million with separate third-party hedging instruments to qualify for hedge accounting on a consolidated basis. This strategy would result in higher transaction costs.

Alternatively, if Roxy Accessories decided to enter into a third-party derivative for only the GBP1 million net exposure but did not meet the criteria discussed above, it could document hedge accounting on a consolidated basis for only GBP1 million of the outflow exposure of Ludwig Industries. Roxy Accessories could not apply hedge accounting on a consolidated basis to the remaining GBP9 million outflow of Ludwig or the GBP9 million inflow of Zurich. Although these exposures will offset one another, volatility in earnings may occur due to differences in the timing of the recognition of the forecasted transactions, as well as between the lines on the income statement of the forecasted transactions. Any earnings volatility could affect gross margin ratios and other key financial statistics.

For a qualifying foreign currency cash flow hedge in which the exposures arising from multiple internal derivative contracts are aggregated or netted for each foreign currency, ASC 815 would allow a treasury center to enter into a derivative contract with a third party to offset its exposure position, without either leg of the third-party position being in the treasury center's functional currency, provided that the amounts of each leg are equivalent to each other based on forward exchange rates.²⁶³ Under ASC 815, the derivative contracts with the unrelated third party need to provide an offset for each foreign currency exposure, and the gains and losses generated from the third-party derivative contracts should equal or approximate the gains or losses generated by the internal derivative contracts entered into by the subsidiaries and the treasury center.

²⁶³ See ASC 815-20-25-61, 55-172.

For example, if a treasury center that has the US dollar as its functional currency was short 390 euros (expected outflow) and long 40,684.80 yen (expected inflow) after netting its exposures obtained from internal derivative contracts, and if the forward exchange rate was 1 euro to 104.32 yen, the treasury center could enter into a third-party receive 390 euros/pay 40,684.80 yen (390 euros x 104.32 yen = 40,684.80 yen) contract to offset the exposures. In contrast, if the forward exchange rate was as described but the treasury center was short 390 euros and long 51,000 yen as a result of its intercompany contracts, the treasury center would need to enter into two third-party contracts, with the receive leg of the second third-party position being the treasury center's functional currency. For example, the treasury center could enter into the first third-party contract to receive 390 euros/pay 40,684.80 yen to offset the euro exposure and partially offset the yen exposure. It would then need to enter into a second contract to receive its functional currency and pay yen to hedge the remainder of its yen exposure.

Example 6: *Hedge accounting in the consolidated financial statements applied to internal derivatives that are offset on a net basis by third-party contracts*

This example illustrates the application of the provisions of ASC 815 that permit centralized hedging of foreign currency risk. Specifically, this example illustrates the mechanism for offsetting, on a net basis with third-party contracts, the risks assumed by a central treasury operation issuing internal derivative contracts. This example does not demonstrate the computation of fair values and makes certain assumptions that simplify the facts to focus on the application of the theory in ASC 815 and not the mathematics.

Company XYZ is a US company with the US dollar (USD) as both its functional currency and its reporting currency. Company XYZ has three subsidiaries:

| Subsidiary functional currency assumptions | | |
|---|-----------------|----------------------------|
| Subsidiary | Location | Functional Currency |
| Subsidiary A | Germany | Euro |
| Subsidiary B | Japan | Japanese yen (JPY) |
| Subsidiary C | United Kingdom | British pound (GBP) |

Company XYZ uses a Treasury Center to manage foreign exchange risk on a centralized basis. The Treasury Center has the same functional currency as the parent company (i.e., USD). Foreign exchange risks at Subsidiaries A, B and C resulting from transactions with various suppliers and customers are transferred to the Treasury Center via internal derivative contracts. The Treasury Center then offsets those exposures to foreign currency risk using third-party contracts. To the extent possible, the Treasury Center offsets exposures to each individual currency on a net basis.

On 1 January, Subsidiaries A, B and C decide that certain foreign-currency-denominated forecasted transactions with suppliers and customers for purchases and sales of various goods are probable of occurring. Also on 1 January, Subsidiaries A, B and C enter into internal foreign currency forward contracts with the Treasury Center to hedge the foreign exchange risk of those transactions with respect to their individual functional currencies. The subsidiaries are referred to as the "hedging affiliates" and the Treasury Center the "issuing affiliate" in relation to the internal derivative contracts.

Subsidiaries A, B and C identify the following forecasted transactions with foreign currency exposures and enter into the following internal contracts with the Treasury Center:

| Treasury Center internal transactions with individual subsidiaries | | | | | |
|--|---------------------|----------------------|---------------------------|---|----------------------------------|
| Subsidiary | Functional Currency | Forecasted exposures | Expected transaction date | Internal contracts with treasury center | |
| | | | | Currency received from treasury center | Currency paid to treasury center |
| A (German) | Euro | JPY 12,000 payable | June 1 | JPY 12,000 | Euro 115* |
| | | GBP 50 receivable | June 1 | Euro 80* | GBP 50 |
| | | USD 100 payable | June 15 | USD 100 | JPY 10,160* |
| B (Japanese) | JPY | Euro 100 receivable | June 15 | JPY 10,432* | Euro 100 |
| C (UK) | GBP | USD 330 receivable | June 30 | GBP 201* | USD 330 |

* Computed based on forward exchange rates as of 1 January.

Subsidiaries A, B and C each document the five individual internal derivative contracts so that they meet the criteria to be considered cash flow hedges (refer to Chapters 4 and 6).

The following table indicates how the intercompany hedging requirements of ASC 815 would be met.

| Analysis of hedging requirements | |
|--|---|
| Hedging affiliate requirement | Analysis |
| a. From the perspective of the hedging affiliate, the criteria for foreign currency cash flow hedge accounting must be satisfied. | <i>Each subsidiary meets those requirements. In each hedging relationship, the forecasted transaction being hedged is denominated in a currency other than the subsidiary's functional currency, and the individual subsidiary that has the foreign currency exposure relative to its functional currency is a party to the hedging instrument. The forecasted transactions being hedged are specifically identified, are probable of occurring, and are transactions with external third parties that create cash flow exposure that would affect reported earnings. Each subsidiary prepares formal documentation of the hedging relationships, including the date on which the forecasted transactions are expected to occur and the amount of foreign currency being hedged, its expectation of high effectiveness of the internal contracts designated as hedging instruments and its method of measuring the effectiveness of the relationship.</i> |
| b. The issuing affiliate must either (1) enter into a derivative contract with an unrelated third party to offset the exposure that results from the internal derivative or (2) as provided by ASC 815, enter into derivative contracts with unrelated third parties that would offset, on a net basis for each foreign currency, the foreign exchange risk arising from multiple internal derivative contracts. | <i>The Treasury Center determines that it will offset the exposure arising from the internal derivative contracts with the subsidiaries on a net basis with third-party contracts. Each currency for which a net exposure exists at the Treasury Center is offset by a third-party contract based on that currency.</i> |

In order for Subsidiaries A, B and C to designate the internal contracts as hedging instruments in the consolidated financial statements, the Treasury Center must also meet certain criteria. These requirements relate to how the Treasury Center will offset exposures arising from the multiple internal derivatives that it has issued. From the Treasury Center's perspective, the requirements are satisfied as follows:

| Analysis of Treasury Center requirements | |
|--|---|
| Treasury center (issuing affiliate) requirement | Analysis for treasury center |
| The issuing affiliate enters into a derivative contract with an unrelated third party to offset, on a net basis for each foreign currency, the foreign exchange risk arising from multiple internal derivative contracts, and the derivative contract with the unrelated third party generates equal or closely approximating gains and losses when compared with the aggregate or net losses and gains generated by the derivative contracts issued to affiliates. | <i>The Treasury Center enters into third-party derivative contracts to offset the exposure of each foreign currency on a net basis. The Treasury Center offsets 100% of the net exposure to each currency; that is, the Treasury Center does not selectively keep any portion of that exposure. In this example, the Treasury Center's third-party contracts generate losses that are equal to the losses on internal contracts designated as hedging instruments by the subsidiaries (see analysis below).</i> |
| Internal derivatives that are not designated as hedging instruments are excluded from the determination of the foreign currency exposure on a net basis that is offset by the third-party derivative. In addition, nonderivative contracts may not be used as hedging instruments to offset exposures arising from internal derivative contracts. | <i>The Treasury Center does not include in the determination of net exposure any internal derivatives not designated as hedging instruments or any nonderivative contracts.</i> |
| Foreign currency exposure that is offset by a single net third-party contract arises from internal derivative contracts that involve the same currency and that mature within the same 31-day period. The offsetting net third-party derivative related to that group of contracts must offset the aggregate or net exposure to that currency, must mature within the same 31-day period and must be entered into within three business days after the designation of the internal derivatives as hedging instruments. | <i>The Treasury Center's third-party net contracts involve the same currency (that is, not a tandem currency) as the net exposure arising from the internal derivatives issued to the subsidiaries. The Treasury Center's third-party derivative contracts mature within the same 31-day period as the internal contracts that involve currencies that are offset on a net basis. In this example, for simplicity, all internal contracts and third-party derivatives are entered into on the same date.</i> |
| The issuing affiliate tracks the exposure that it acquires from each hedging affiliate and maintains documentation supporting linkage of each internal derivative contract and the offsetting aggregate or net derivative contract with an unrelated third party. | <i>The Treasury Center maintains documentation supporting linkage of third-party contracts and internal contracts throughout the hedge period.</i> |
| The issuing affiliate does not alter or terminate the offsetting derivative with an unrelated third party unless the hedging affiliate initiates that action. If the issuing affiliate does alter or terminate any offsetting third-party derivative (which should be rare), the hedging affiliate must prospectively cease hedge accounting for the internal derivatives that are offset by that third-party derivative. | <i>Based on Company XYZ's policy, the Treasury Center may not alter or terminate the offsetting derivative with an unrelated third party unless the hedging affiliate initiates that action.</i> |

As a result of meeting the requirements of ASC 815, the internal derivatives issued by the Treasury Center may qualify as cash flow hedges in the consolidated financial statements. In order to determine the net currency exposure arising from the internal contracts with Subsidiaries A, B and C, which will then be offset with external third-party contracts, the Treasury Center performs the following analysis, prepared from the perspective of the Treasury Center:

| Treasury Center analysis of net currency exposures | | | | | |
|---|--------------------------------------|--|------------------------|---------------------|-------------------|
| Subsidiary | Contract with treasury center | Currency received from subsidiaries/ (currency paid to subsidiaries)* | | | |
| | | Euro** | JPY** | GBP** | USD |
| A (German) | Internal Contract 1 | 115 | (12,000) | – | – |
| | Internal Contract 2 | (80) | – | 50 | – |
| B (Japanese) | Internal Contract 3 | – | 10,160 | – | (100) |
| | Internal Contract 4 | 100 | (10,432) | – | – |
| C (UK) | Internal Contract 5 | – | – | (201) | 330 |
| Net Exposure | | <u>135</u> | <u>(12,272)</u> | <u>(151)</u> | <u>230</u> |

* Note that these exposures are the mirror images of the contracts in the introductory table, which was prepared from the perspective of the subsidiaries.

** The shaded boxes represent the leg of each contract denominated in the functional currency of the subsidiary.

The Treasury Center determines the net exposure in each currency with respect to the USD (its functional currency). On 1 January, the Treasury Center enters into the following three unrelated third-party foreign currency forward contracts that mature on 30 June:

| Treasury Center transactions to offset net currency exposures | | | | |
|--|---|----------------------|-------------------|---------------------|
| | Currency bought from third party/ (currency sold to third party) | | | |
| | Euro | JPY | GBP | USD |
| Third-Party Contract 1 | (135) | – | – | 138* |
| Third-Party Contract 2 | – | 12,272 | – | (121)* |
| Third-Party Contract 3 | – | – | 151 | (247)* |
| Net Exposure | <u>(135)</u> | <u>12,272</u> | <u>151</u> | <u>(230)</u> |

* Computed based on forward exchange rates as of 1 January.

At the end of the quarter, each subsidiary determines the functional currency gains and losses for each contract with the Treasury Center:

| Subsidiary functional currency gains/losses | | | | | |
|--|--------------------------------------|--|--|--|---------------------------------------|
| Subsidiary | Contract with treasury center | Contractual functional currency amount receive/(pay)* | Current market functional currency amount receive/(pay)** | Functional currency fair value gain/(loss)*** | USD Fair value gain/(loss)**** |
| A (German) | Internal Contract 1 | (115) | (115) | – | – |
| | Internal Contract 2 | 80 | 83 | (3) | (3) |
| B (Japan) | Internal Contract 3 | (10,160) | (10,738) | 578 | 5 |
| | Internal Contract 4 | 10,432 | 10,421 | 11 | – |
| C (U.K.) | Internal Contract 5 | 201 | 204 | (3) | (5) |
| Net USD Gain/(Loss) | | | | | <u>(3)</u> |
| * Computed based on contractual forward exchange rates as of 1 January. | | | | | |
| ** Computed based on current market forward exchange rates as of 31 March. | | | | | |
| *** Computed as the contractual amount less the current market amount. For example, under Internal Contract 2, a contract entered into on 31 March to pay 50 BP on 1 June would receive 83 euros. Thus, the contract entered into on 1 January to sell 50 BP for 80 euros on 1 June has experienced a loss of 3 euros. For simplicity, functional currency gains or losses are not discounted in this example and do not take into consideration counterparty credit risk in the fair value measurement. See Chapter 4 for further discussion. | | | | | |
| **** Functional currency gains and losses converted to US dollars based on current spot rates. | | | | | |

At the end of the quarter, the Treasury Center determines its gains or losses on third-party contracts:

| Treasury Center gain/loss on contracts with third-parties | | | |
|---|--|--|--------------------------------------|
| Contracts with third parties | Contractual USD amount receive/(pay)* | Current market USD amount receive/(pay)** | USD fair value gain/(loss)*** |
| Third-party contract 1 (Euro) | 138 | 131 | 7 |
| Third-party contract 2 (yen) | (121) | (114) | (7) |
| Third-party contract 3 (Pound Sterling) | (247) | (244) | (3) |
| Net USD Gain/(Loss) | | | <u>(3)</u> |
| * Computed based on contractual forward exchange rates as of 1 January. | | | |
| ** Computed based on current market forward exchange rates as of 31 March. | | | |
| *** Computed as the contractual amount less the current market amount. For example, under Third-Party Contract 1, a contract entered into on 31 March to pay 135 euros on 30 June would receive 131 USD. Thus, the contract entered into on 1 January to sell 135 euros for 138 USD on 30 June has experienced a gain of 7 USD. For simplicity, functional currency gains or losses are not discounted in this example and do not take into consideration counterparty credit risk in the fair value measurement. See Chapter 4 for further discussion. | | | |

Note that in the above example, the derivative contracts with the unrelated third parties generate gains and losses exactly offsetting those generated by the internal derivative contracts issued to affiliates. In many cases, these amounts will not exactly offset because ASC 815 provides entities with the flexibility to net intercompany contracts that mature within a 31-day period and to enter into offsetting contracts within three days rather than simultaneously. However, ASC 815 requires that the gains and losses experienced by the Treasury Center approximately offset.

The following journal entries are made at 31 March and assume that the intercompany derivatives have been perfectly effective in offsetting the hedged transactions at the subsidiary level. All journal entries are in US dollars. Entries are segregated by legal entity.

Subsidiaries' journal entries

German Subsidiary A

There is no entry for Contract 1 because the US dollar gain or loss is zero.

| | | |
|--|---|---|
| Other comprehensive income | 3 | |
| Derivative liability | | 3 |
| To record the loss on Internal Contract 2. | | |

Japanese Subsidiary B

| | | |
|-----------------------------------|---|---|
| Derivative asset | 5 | |
| Other comprehensive income | | 5 |
| To record the gain on Contract 3. | | |

There is no entry for Internal Contract 4 because the US dollar gain or loss is zero.

UK Subsidiary C

| | | |
|--|---|---|
| Other comprehensive income | 5 | |
| Derivative liability | | 5 |
| To record the loss on Internal Contract 5. | | |

Treasury Center's Journal Entries

Journal Entries for Internal Contracts with Subsidiaries

There is no entry for Internal Contract 1 because the US dollar gain or loss is zero.

| | | |
|---|---|---|
| Derivative asset | 3 | |
| Earnings | | 3 |
| To record the gain on Internal Contract 2 with German Subsidiary A. | | |

| | | |
|---|---|---|
| Earnings | 5 | |
| Derivative liability | | 5 |
| To record the loss on Internal Contract 3 with Japanese Subsidiary B. | | |

There is no entry for Internal Contract 4 because the US dollar gain or loss is zero.

| | | |
|---|---|---|
| Derivative asset | 5 | |
| Earnings | | 5 |
| To record the gain on Internal Contract 5 with UK Subsidiary C. | | |

Journal Entries for Third-Party Contracts

| | | |
|---|---|---|
| Derivative asset | 7 | |
| Earnings | | 7 |
| To record the gain on Third-Party Contract 1. | | |

| | | |
|---|---|---|
| Earnings | 7 | |
| Derivative liability | | 7 |
| To record the loss on Third-Party Contract 2. | | |
| Earnings | 3 | |
| Derivative liability | | 3 |
| To record the loss on Third-Party Contract 3. | | |

Notice that in the above entries, the subsidiaries record the derivatives at fair value with the offsetting entry to other comprehensive income as the contracts have been designated as cash flow hedges. The Treasury Center has not designated any of its contracts (either internal or with third parties) as hedging instruments and thus the offsetting entries are to earnings.

The following table “consolidates” the debits and (credits) from the above entries to illustrate the net effect on the consolidated entity:

| Net effect of entries on consolidated financial statements | | | | | | | | | | |
|---|--|--------------|--------------|---|-----------|-----------|---|-----------|-----------|--------------|
| | Internal contracts on subsidiaries' ledgers | | | Internal contracts on treasury center's ledger | | | External contracts on treasury center's ledger | | | Total |
| | Sub A | Sub B | Sub C | #2 | #3 | #5 | #1 | #2 | #3 | |
| | #2 | #3 | #5 | | | | | | | |
| Derivative asset | | 5* | | 3* | | 5* | 7 | | | 7 |
| Derivative liability | (3)* | | (5)* | | (5)* | | | (7) | (3) | (10) |
| OCI | 3 | (5) | 5 | | | | | | | 3 |
| Earnings | | | | (3) | 5 | (5) | 7 | 3 | | - |

* Intercompany asset and liability balances eliminate in consolidation.

In consolidation, the amounts in Subsidiaries A, B and C's balance sheets reflecting derivative assets and derivative liabilities arising from internal derivatives acquired from the Treasury Center eliminate against the Treasury Center's derivative liabilities and derivative assets arising from internal derivatives issued to the subsidiaries. The amount reflected in consolidated other comprehensive income reflects the net entry to other comprehensive income of Subsidiaries A, B and C. The Treasury Center's gross derivative asset and gross derivative liability arising from third-party contracts are also reflected in the consolidated balance sheet.

Effect of the hedge on the income statement

Based on the assumptions in this illustration, the Treasury Center's net loss on third-party derivatives used to offset the exposure, on a net basis, of internal contracts with Subsidiaries A, B and C equals the net loss on the internal hedging contracts from the perspective of the subsidiaries. Therefore, within the Treasury Center, the gains on internal contracts issued to Subsidiaries A, B and C, and the losses on third-party contracts are equal and offsetting.

The reclassification of amounts out of consolidated other comprehensive income would be based on Subsidiaries A, B and C's internal contracts with the Treasury Center. That is, the reclassification of amounts out of consolidated other comprehensive income into earnings is based on the timing and amounts of the individual subsidiaries' forecasted transactions. In this illustration, at 30 June, the forecasted transactions at Subsidiaries A, B and C would have been consummated and the net debit amount in consolidated other comprehensive income of 3 would be reversed.

7.9 Hedges of recognized foreign-currency-denominated assets and liabilities

7.9.1 General principles

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedged Items and Transactions Involving Foreign Exchange Risk

815-20-25-29

The recognition in earnings of the foreign currency transaction gain or loss on a foreign-currency-denominated asset or liability based on changes in the foreign currency **spot rate** is not considered to be the remeasurement of that asset or liability with changes in fair value attributable to foreign exchange risk recognized in earnings, which is discussed in the criteria in paragraphs 815-20-25-15(d) and 815-20-25-43(c). Thus, those criteria are not impediments to either of the following:

- a. A foreign currency fair value or cash flow hedge of such a foreign-currency-denominated asset or liability
- b. A foreign currency cash flow hedge of the forecasted acquisition or incurrence of a foreign-currency-denominated asset or liability whose carrying amount will be remeasured at spot exchange rates under paragraph 830-20-35-1.

ASC 815 generally precludes hedge accounting for an asset or liability that is remeasured for changes in fair value attributable to the hedged risk reported currently in earnings. The logic for this preclusion is that hedge accounting is not necessary when changes in value of both a derivative and the item it is intended to hedge are “naturally” offset in earnings. For this reason, Statement 133 initially did not permit hedge accounting with respect to the foreign currency risk of recognized foreign-currency-denominated assets or liabilities because changes in the spot exchange rate were recorded as transaction gains or losses in accordance with ASC 830. Statement 138, however, amended Statement 133 and clarified that the adjustment of a foreign-currency-denominated recognized asset or liability for changes in the spot exchange rate does not constitute a remeasurement at fair value. Accordingly, ASC 815 now permits recognized foreign-currency-denominated assets or liabilities for which a foreign currency transaction gain or loss is recognized in earnings under ASC 830-20-35-1 to be the hedged item in a fair value hedge or the cash flows therefrom to be the hedged item in a cash flow hedge.

This provision includes interest-bearing and non-interest-bearing foreign-currency-denominated debt instruments that are either held (assets) or owed (liabilities) such as bonds, loans, trade receivables and payables. Designated hedging instruments and hedged items qualify for fair value hedge accounting and cash flow hedge accounting only if all of the criteria in ASC 815 are met for fair value hedge accounting and cash flow hedge accounting, respectively. In addition, to qualify as a foreign currency fair value or cash flow hedge, the transaction must be denominated in a currency other than the hedging unit's functional currency and the hedging unit (or another entity in the consolidated group that has the same functional currency when there are no intervening entities that have a different functional currency) that has the exposure must be a party to the hedging instrument.

It should also be noted that under ASC 815-20-25-71(b)(1) and 25-71(c)(1), nonderivative instruments are not permitted to be designated in hedges of the foreign currency risk of recognized assets and liabilities. There is no need for hedge accounting with respect to nonderivative instruments in that, even absent hedge accounting, the transaction gains and losses from both items would naturally offset.

While hedge accounting is permitted for these foreign-currency-denominated assets and liabilities, they must still follow ASC 830, which requires remeasurement based on spot exchange rates. As will be illustrated in the remainder of this section, this means that unlike other fair value and cash flow hedges,

foreign currency fair value and cash flow hedges of recognized assets and liabilities involve *different* measurement criteria for the hedged item and the hedging instrument. This is most apparent in fair value hedging relationships in that the gains and losses that are required to be recognized may not completely offset, even in situations where the hedge is perceived to be “perfect.”

A final general consideration is to recognize that foreign currency hedges are often carried out together with interest rate hedging strategies. Economically, interest rates and foreign exchange rates are closely linked, and hedging strategies often address them together. For example, an entity that issues a fixed-rate foreign-currency-denominated debt instrument would often use a single derivative to convert its obligation to a functional currency variable-interest-rate basis. Similarly, ASC 815 frequently considers compound derivatives as simultaneous hedges of both foreign currency and interest rate risk.

7.9.2 Types of hedges to be considered

7.9.2.1 Fair value hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Items in Fair Value Hedges of Foreign Exchange Risk

815-20-25-37

This paragraph identifies possible hedged items in fair value hedges of foreign exchange risk. If every applicable criterion is met, all of the following are eligible for designation as a hedged item in a fair value hedge of foreign exchange risk:

- a. **Recognized asset or liability.** A derivative instrument can be designated as hedging the changes in the fair value of a recognized asset or liability (or a specific portion thereof) for which a foreign currency transaction gain or loss is recognized in earnings under the provisions of paragraph 830-20-35-1. All recognized foreign-currency-denominated assets or liabilities for which a foreign currency transaction gain or loss is recorded in earnings shall qualify for the accounting specified in Subtopic 815-25 if all the fair value hedge criteria in this Section (including the conditions in paragraph 815-20-25-30(a) through (b)) are met.
- b. **Available-for-sale debt security.** A derivative instrument can be designated as hedging the changes in the fair value of an available-for-sale debt security (or a specific portion thereof) attributable to changes in foreign currency exchange rates. The designated hedging relationship qualifies for the accounting specified in Subtopic 815-25 if all the fair value hedge criteria in this Section (including the conditions in paragraph 815-20-25-30(a) through (b)) are met.
- c. **Subparagraph superseded by Accounting Standards Update No. 2016-01.**
- d. **Unrecognized firm commitment.** Paragraph 815-20-25-58 states that a derivative instrument or a nonderivative financial instrument that may give rise to a foreign currency transaction gain or loss under Topic 830 can be designated as hedging changes in the fair value of an unrecognized firm commitment, or a specific portion thereof, attributable to foreign currency exchange rates.

Fair value hedges would generally be used in situations in which an entity is hedging against changes in fair value attributable to changes in only foreign exchange rates or both foreign exchange rates and interest rates. A transaction in which a variable-rate foreign-currency-denominated loan is converted into a variable-rate functional currency loan through the use of a forward contract or currency swap would be considered a fair value hedge of only foreign exchange rates. In such a hedge, an entity could choose to exclude the time value and the cross-currency basis spread from the assessment of hedge effectiveness, since this would result in an outcome that is more consistent with the entity’s risk management strategy.

In this case, the change in the spot rate on the hedging instrument would offset the foreign currency transaction gain or loss on the debt measured in accordance with ASC 830. In addition, when using a cross-currency swap under the amortization approach, the initial value of the excluded components would be recorded each period through the typical swap accrual process.

A transaction in which a fixed-rate foreign-currency-denominated loan is converted into a variable-rate functional currency loan through the use of an interest rate swap and a forward contract or a compound instrument such as a cross-currency interest rate swap would be considered a fair value hedge of both foreign exchange rates and interest rates. In this case, an entity would likely find it beneficial to exclude changes in the fair value of the hedging instrument due to changes in the fair value of the cross-currency basis spread from the assessment of hedge effectiveness. Refer to section 4.8.3.5 for additional discussion.

When an entity hedges both foreign currency and interest rate risk in a fair value hedging relationship, the FASB indicated that the foreign-currency-denominated debt instrument should be remeasured first in its contractual currency for changes in interest rates in that currency and then based on the spot exchange rate. Both changes in value, as well as the change in value of the derivative, are recorded in income in the same income statement lines where the earnings effect of the hedged item are recorded. The change in the fair value of the hedging instrument will need to be allocated for income statement presentation purposes. This is because the hedged item affects multiple income statement line items (i.e., interest income/expense, and gain/loss on foreign exchange remeasurement).

The FASB believes this two-step approach would result in the same functional currency value that would result if the hedged item were remeasured based on forward exchange rates. The theory behind this conclusion is that ASC 830 was never intended to be a fair value-based standard. Its purpose is solely to isolate the effects of foreign currency movements on financial statements. Changes in relative interest rates between two countries help to explain the reason for fluctuations in foreign currency forward exchange rates, but ASC 830 does not explicitly recognize changes in interest rates, like a pure fair-value-based standard (such as ASC 320 or ASC 815) does. Therefore, if an entity were trying to remeasure assets and liabilities at a forward rate, instead of the spot rate, the entity would still be obligated to “strip out” the effect of interest rates embedded in the forward rate, and would be left with the spot rate.

7.9.2.2

Cash flow hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Items and Transactions in Cash Flow Hedges of Foreign Exchange Risk

815-20-25-39

A hedging relationship of the type described in the preceding paragraph qualifies for hedge accounting if all the following criteria are met:

- d. If the hedged item is a recognized foreign-currency-denominated asset or liability, all the variability in the hedged item’s functional-currency-equivalent cash flows shall be eliminated by the effect of the hedge.

815-20-25-40

For purposes of item (d) in the preceding paragraph, an entity shall not specifically exclude a risk from the hedge that will affect the variability in cash flows. For example, a cash flow hedge cannot be used with a variable-rate foreign-currency-denominated asset or liability and a derivative instrument based solely on changes in exchange rates because the derivative instrument does not eliminate all the variability in the functional currency cash flows. As long as no element of risk that affects the variability in foreign-currency-equivalent cash flows has been specifically excluded from a foreign currency cash flow hedge and the hedging instrument is highly effective at providing the necessary

offset in the variability of all cash flows, a less-than-perfect hedge would meet the requirement in (d) in the preceding paragraph. That criterion does not require that the derivative instrument used to hedge the foreign currency exposure of the forecasted foreign-currency-equivalent cash flows associated with a recognized asset or liability be perfectly effective, rather it is intended to ensure that the hedging relationship is highly effective at offsetting all risks that impact the variability of cash flows.

815-20-25-41

If all of the variability of the functional-currency-equivalent cash flows is eliminated as a result of the hedge (as required by paragraph 815-20-25-39(d)), an entity can use cash flow hedge accounting to hedge the variability in the functional-currency-equivalent cash flows associated with any of the following:

- a. All of the payments of both principal and interest of a foreign-currency-denominated asset or liability
- b. All of the payments of principal of a foreign-currency-denominated asset or liability
- c. All or a fixed portion of selected payments of either principal or interest of a foreign-currency-denominated asset or liability
- d. Selected payments of both principal and interest of a foreign-currency-denominated asset or liability (for example, principal and interest payments on December 31, 20X1, and December 31, 20X3).

The FASB allowed recognized foreign-currency-denominated assets and liabilities to be hedged under the cash flow model to mitigate the effects on earnings of using different measurement criteria for the hedged item (remeasured based on spot exchange rates) and the hedging instrument (measured at fair value based on forward exchange rates). For example, when hedging foreign-denominated debt, an entity would measure the derivative at fair value and record the entire change in the fair value included in the assessment of hedge effectiveness in OCI. It would then reclassify amounts from AOCI to the same income statement lines where the remeasurement of the debt (in accordance with ASC 830) and the periodic interest payments are recorded. The FASB believed permitting this offset is consistent with the principal purpose of providing hedge accounting to mitigate the effects on earnings of different existing measurement criteria (see Example 7 below).

However, a cash flow hedge of a recognized foreign-currency-denominated asset or liability is only permitted when all of the variability in the hedged item's functional currency equivalent cash flows is eliminated by the effect of the hedge. That is, an entity cannot exclude a risk from the hedge that will affect the variability in cash flows of the hedged item. The requirement to eliminate all variability is intended to make sure that the hedging relationship is highly effective at offsetting *all risks* that affect the variability of cash flows.²⁶⁴

For example, a transaction in which either a fixed- or variable-rate, foreign-currency-denominated debt instrument is converted into a variable-rate functional currency loan through one or more derivatives would not qualify as a cash flow hedge since all of the variability in the functional currency cash flow is not eliminated (variability remains as a result of the functional currency variable interest payments). However, such a hedge could likely qualify as a fair value hedge.

To comply with the requirement to hedge all variability in cash flows, an entity will often simultaneously hedge the interest rate and foreign currency risk when hedging variable-rate, foreign-currency-denominated assets or liabilities. For example, a transaction in which a variable-rate, foreign-currency-denominated loan is converted into a fixed-rate, functional currency loan through the use of an interest rate swap and a forward contract or a compound instrument such as a cross-currency interest rate swap would qualify as a cash flow hedge of both foreign exchange risk and interest rate risk as all variability has been hedged.

²⁶⁴ ASC 815 acknowledges that if an option contract is used as the hedging instrument, it can be used to provide only a one-sided offset against the hedged foreign exchange risk.

A transaction in which a fixed-rate, foreign-currency-denominated debt instrument is converted into a fixed-rate, functional currency debt instrument through the use of a forward contract or currency swap would also qualify for cash flow hedge accounting. This would be considered a cash flow hedge of only foreign exchange risk.

The requirement that all of the hedged item's functional-currency-equivalent cash flows be eliminated does not mean that an entity is required to hedge all of the principal and interest payments of these recognized assets or liabilities. ASC 815-20-25-41 makes it clear that any of the following cash flows could be hedged, as long as all of the variability in each hedged cash flow is eliminated:

- ▶ All payments of both principal and interest of a foreign-currency-denominated asset or liability
- ▶ All payments of principal of a foreign-currency-denominated asset or liability
- ▶ All or a fixed portion of selected payments of either principal or interest of a foreign-currency-denominated asset or liability
- ▶ Selected payments of both principal and interest of a foreign-currency-denominated asset or liability (e.g., principal and interest payments on 31 December 20X1 and 31 December 20X3)

In addition, the concept of eliminating all variability does not mean that these cash flow hedging relationships are required to be perfectly effective. Examples of this are provided in ASC 815-20-55-132 through 55-135 and include:

- ▶ An entity issues a fixed-rate foreign-currency-denominated debt obligation that is callable and desires to hedge its foreign currency exposure related to that obligation with a fixed-to-fixed cross-currency swap. The entity does not have to use a swap containing a mirror image call option to qualify for hedge accounting (assuming it is probable that the call option will not be exercised and thus it is probable that the hedged cash flows will occur).
- ▶ An entity issues a variable-rate foreign-currency-denominated debt obligation and desires to hedge its foreign currency exposure related to that obligation with a floating-to-fixed cross-currency interest rate swap in which it receives the same foreign currency based on the variable rate index contained in the debt obligation and pays a fixed amount in its functional currency. The entity could use a swap with slight differences in interest rate reset dates or notional amounts.

7.9.2.3

Hedging a forecasted transaction and the resulting asset or liability

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Sale or Purchase on Credit as a Hedged Item Involving Foreign Exchange Risk

815-20-25-34

The provisions of this Section (including paragraph 815-20-25-28) that permit a recognized foreign-currency-denominated asset or liability to be the hedged item in a fair value or cash flow hedge of foreign currency exposure also pertain to a recognized foreign-currency-denominated receivable or payable that results from a hedged forecasted foreign-currency-denominated sale or purchase on credit. Specifically, an entity may choose to designate either of the following:

- a. A single cash flow hedge that encompasses the variability of functional currency cash flows attributable to foreign exchange risk related to the settlement of the foreign-currency-denominated receivable or payable resulting from a forecasted sale or purchase on credit
- b. Both of the following separate hedges:
 1. A cash flow hedge of the variability of functional currency cash flows attributable to foreign exchange risk related to a forecasted foreign-currency-denominated sale or purchase on credit

2. A foreign currency fair value hedge of the resulting recognized foreign-currency-denominated receivable or payable.

815-20-25-35

If two separate hedges are designated, the cash flow hedge would terminate (that is, be dedesignated) when the hedged sale or purchase occurs and the foreign-currency-denominated receivable or payable is recognized.

815-20-25-36

The use of the same foreign currency derivative instrument for both the cash flow hedge and the fair value hedge is not prohibited.

When foreign currency purchases or sales are made on credit, an entity is exposed to foreign exchange risk not only on the forecasted transaction (based on changes in the foreign exchange rate up until the date of the transaction) but also on the corresponding foreign-currency-denominated receivable or payable (based on changes in the foreign exchange rate from the date of the sale or purchase until the date the receivable or payable is settled). For example, an entity may forecast the sale of a product in a foreign currency to occur in three months with the collection of the foreign currency cash proceeds to occur two months after that date. In this case, the income statement effect of the exposure is recognized in different line items at different points in time. The exposure related to the forecasted transaction would affect revenue (or a similar line item) at the time the sale occurs, while the exposure related to the corresponding receivable is recognized as a foreign currency transaction gain or loss in accordance with the requirements of ASC 830. The guidance in ASC 815 provides entities with a certain amount of flexibility in how these exposures may be hedged.

ASC 815-20-25-34(b) indicates that an entity may hedge the overall foreign exchange exposure on the forecasted transaction and the corresponding foreign-currency-denominated receivable or payable in two separate hedging relationships: (1) a cash flow hedge of the variability of functional currency cash flows attributable to foreign exchange risk related to the forecasted foreign-currency-denominated sale or purchase on credit and (2) a foreign currency fair value hedge of the resulting recognized foreign-currency-denominated receivable or payable. An entity can choose to use the same foreign currency derivative as the hedging instrument in both hedging relationships.

Alternatively, ASC 815-20-25-34(a) permits an entity to designate a single, dual purpose cash flow hedge of the variability of functional currency cash flows attributable to foreign exchange risk related to a forecasted foreign-currency-denominated receivable or payable resulting from a forecasted sale or purchase on credit. Under this approach, an entity would use a single foreign currency forward that matures when the receivable or payable is scheduled to mature as the hedging instrument of the forecasted transaction as well as the ultimate receivable or payable. (Example 8 illustrates this approach.)

How we see it

While ASC 815 expressly permits a single, dual purpose cash flow hedge of the variability of the functional currency cash flows attributable to foreign exchange risk related to a forecasted foreign-currency-denominated payable resulting from a forecasted purchase on credit, we do not believe that ASC 815 permits a single purpose hedge of the foreign exchange risk related to a forecasted issuance of foreign-currency-denominated debt. In this type of scenario, the entity is concerned solely with foreign exchange spot movements between the hedge inception date and the debt issuance date, focusing on the risk associated with converting the foreign-denominated debt proceeds into functional currency cash at the moment the proceeds are collected. While this represents a true risk from an economic and cash flow perspective, this is not a risk that directly impacts the entity's earnings.

7.9.2.4 Summary of hedge types

The following table summarizes how to characterize particular hedges of foreign-currency-denominated assets or liabilities as either fair value or cash flow hedges:

| Illustration 7-2: Typical foreign currency hedges | | |
|---|---|--|
| Original instrument | Converted to | Hedge type |
| Fixed-rate, foreign-denominated instrument | Floating-rate, functional-currency-denominated instrument | Fair value hedge of both foreign currency and interest rate risk |
| Floating-rate, foreign-denominated instrument | Floating-rate, functional-currency-denominated instrument | Fair value hedge of foreign currency risk only |
| Fixed-rate, foreign-denominated instrument | Fixed-rate, functional-currency-denominated instrument | Cash flow or fair value hedge of foreign currency risk only |
| Floating-rate, foreign-denominated instrument | Fixed-rate, functional-currency-denominated instrument | Cash flow hedge of both foreign currency and interest rate risk |

7.10 Examples of foreign currency hedges of foreign-currency-denominated assets and liabilities

The following examples illustrate the accounting for hedges of foreign-currency-denominated assets or liabilities:

- ▶ Example 7: Cash flow hedge of fixed-rate, foreign-currency-denominated debt converted into fixed-rate, functional currency debt using a cross-currency swap
- ▶ Example 8: "Dual purpose" cash flow hedge of the ultimate settlement of a forecasted foreign-currency-denominated payable resulting from a forecasted purchase on credit using a single forward contract

Example 7: *Cash flow hedge of fixed-rate, foreign-currency-denominated debt converted into fixed-rate, functional currency debt using a cross-currency swap (updated September 2022)*

Company ABC's functional currency is the US dollar. On 1 January 20X1, Company ABC borrows 100 million euros. The debt has a term of five years and pays an annual coupon of 5.68%.

Also on 1 January 20X1, Company ABC enters into a five-year swap in which it will receive fixed euro at a rate of 5.68% on EUR100 million and pay fixed USD at a rate of 6.536% on \$102 million. There will be a final exchange of principal on maturity of the contract based on the current USD102:EUR100 spot exchange rate between the dollar and the euro (i.e., Company ABC will receive EUR100 million and pay \$102 million at maturity of the swap).²⁶⁵ Both the debt and the swap pay annual coupons on 31 December. Company ABC designates the cross-currency swap as a cash flow hedge of its exposure to changes in its functional-currency-equivalent cash flows on the debt.

The spot foreign exchange rates for USD/EUR over the life of the hedge are as follows:

| Key assumptions | | | | | | |
|----------------------------|--------|----------|----------|----------|----------|----------|
| | 1/1/X1 | 12/31/X1 | 12/31/X2 | 12/31/X3 | 12/31/X4 | 12/31/X5 |
| Spot USD/EUR exchange rate | 1.0200 | 1.0723 | 1.0723 | 1.1273 | 1.1851 | 1.2458 |

²⁶⁵ There is also an exchange of notionals at the inception of the cross-currency swap whereby Company ABC pays EUR100 million and receives USD102 million. However, because this initial exchange occurs at the market spot rate, there is no value associated with this exchange.

Company ABC's hedge documentation is as follows:

| Formal hedge designation documentation | |
|--|---|
| Risk management objective and nature of risk being hedged | The objective of the hedge transaction is to hedge the changes in the cash flows of the foreign-currency-denominated debt related to changes in foreign currency exchange rates between the US dollar and the euro in order to fix the functional currency cash flows. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | A five-year cross-currency swap in which the company will receive fixed euro at a rate of 5.68% on EUR100 million and pay fixed USD at a rate of 6.536% on \$102 million. In addition, the agreement requires an exchange of the notional amounts both at inception and at maturity. |
| Hedged item | The company designates the cross-currency swap as a cash flow hedge of the changes in the cash flows of the debt resulting from foreign exchange risk. |
| How hedge effectiveness will be assessed | Because the critical terms of the swap match the critical terms of the foreign-denominated debt (i.e., notional amount of the cross-currency swap equals that of the debt, and all cash flow dates and interest rates coincide between the debt and the swap), changes in cash flows attributable to the risk being hedged are expected to be completely offset by the hedging derivative as discussed in ASC 815-20-25-3(b)(2)(iv)(01)(B). However, every period the company will assess counterparty credit risk and the continued probability of the hedged cash flows as to amount and timing. If the terms of the instrument change, effectiveness will be quantitatively assessed (prospective and retrospective) using the "hypothetical-derivative" method. ²⁶⁶ This method compares the change in fair value of a designated hedging instrument with the change in fair value of a hypothetical derivative that has terms that exactly match the critical terms of the hedged item. |

Note that each of the tables that follow are denominated in USD and presented in millions.

The fair values (in USD) of the EUR/USD cross-currency swap (which equals the hypothetical EUR/USD cross-currency swap) and the change in fair value recorded to OCI for each of the years ended 31 December are as follows:

| Change in fair value of swap, by period (in millions) | | | | | | |
|--|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1/1/X1 | 12/31/X1 | 12/31/X2 | 12/31/X3 | 12/31/X4 | 12/31/X5 |
| Fair value of actual swap ²⁶⁷ | – | 3.544 | 5.642 | 12.401 | 18.310 | 22.580 |
| Change in period (to OCI) | – | 3.544 | 2.098 | 6.759 | 5.909 | 4.270 |

The change in the carrying amount of the foreign-currency-denominated debt due to changes in spot exchange rates each period is as follows:

| Change in carrying amount of debt, by period (in millions) | | | | | | |
|---|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 1/1/X1 | 12/31/X1 | 12/31/X2 | 12/31/X3 | 12/31/X4 | 12/31/X5 |
| Debt remeasured at spot | (102.000) | (107.230) | (107.230) | (112.727) | (118.507) | (124.580) |
| Cumulative change in carrying value of debt | | (5.230) | (5.230) | (10.727) | (16.507) | (22.580) |
| Change in carrying value of debt in period | | (5.230) | – | (5.497) | (5.780) | (6.073) |

²⁶⁶ This is one of the methods specifically referenced in ASC 815-30-35-25 through 35-30.

²⁶⁷ For simplicity, this example does not contemplate the incorporation of a credit valuation adjustment into the fair value of the cross-currency interest rate swap valuation. However, as described in chapters 4 and 6, changes in the creditworthiness of parties to a derivative would impact the fair value of the derivative and hypothetical derivative in an equal manner. Under the hypothetical method of assessment, no mismatch is due solely to changes in the credit valuation adjustment.

The change in the carrying value of the debt in each period is a transaction loss recognized immediately in earnings through the remeasurement process in accordance with ASC 830-20-35-1. ASC 815 provides that an offsetting portion of the AOCI balance related to changes in the fair value of the swap attributable to changes in the spot exchange rates is also immediately reclassified into earnings (i.e., as the hedged item affects earnings an equal and offsetting amount is reclassified from AOCI to earnings to offset transaction loss on debt).

The following rolls forward the AOCI balance and calculates this reclassification:

| AOCI rollforward (in millions) | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 12/31/X1 | 12/31/X2 | 12/31/X3 | 12/31/X4 | 12/31/X5 |
| Change in fair value of actual swap initially recorded in AOCI | 3.544 | 2.098 | 6.759 | 5.909 | 4.270 |
| Reclassification to earnings to offset transaction loss on debt | (5.230) | – | (5.497) | (5.780) | (6.073) |
| Net change in AOCI during period | (1.686) | 2.098 | 1.262 | 0.129 | (1.803) |
| AOCI balance at beginning of period | – | (1.686) | 0.412 | 1.674 | 1.803 |
| AOCI at end of period | (1.686) | 0.412 | 1.674 | 1.803 | – |

The change in the carrying value of the debt from remeasurement is recognized immediately in earnings, as is the reclassification from AOCI related to the swap. In addition, as interest is accrued on the debt, interest on the swap for the corresponding periods will be recorded in earnings. The income statement effect, including interest expense, is set out below for each year ended 31 December:

| Income statement effect (in millions) | | | | | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 12/31/X1 | 12/31/X2 | 12/31/X3 | 12/31/X4 | 12/31/X5 |
| Interest expense ²⁶⁸ | (6.667) | (6.667) | (6.667) | (6.667) | (6.667) |
| Transaction loss on debt from ASC 830 remeasurement | (5.230) | – | (5.497) | (5.780) | (6.073) |
| Hedge gain reclassified from AOCI | 5.230 | – | 5.497 | 5.780 | 6.073 |

Notice that in the year 20X2, there were no transaction gains or losses and no hedge gains or losses because the spot exchange rate did not change from 20X1 to 20X2.

The following journal entries would be recorded by Company ABC at the end of the first year on 31 December 20X1:

| | | |
|---|--------------|-----------------------------|
| Interest expense | \$ 6,667,000 | |
| Cash (paid to creditor) | | \$ 6,091,000 ²⁶⁹ |
| Cash (paid to swap counterparty) | | 576,000 ²⁷⁰ |
| To record interest expense on both the debt and the swap. | | |
| Transaction gain/loss | \$ 5,230,000 | |
| Foreign-currency-denominated debt | | \$ 5,230,000 |
| To adjust the carrying amount of the foreign-currency-denominated debt to spot rate through ASC 830 remeasurement to functional currency. | | |

²⁶⁸ Interest expense is calculated based on paying fixed 6.536% on USD102 million from the cross-currency swap. The interest paid at 5.68% on the EUR100 million debt is completely offset (both in cash flow and ASC 830 remeasurement effects) by the 5.68% received on EUR100 million under the cross-currency swap.

²⁶⁹ (EUR100 million x 5.68% x 1.0723) rounded.

²⁷⁰ ((USD102 million x 6.536%) – (EUR100 million x 5.68% x 1.0723)) rounded.

| | | |
|----------------------------|--------------|--------------|
| Cross-currency swap | \$ 3,544,000 | |
| Other comprehensive income | 1,686,000 | |
| Transaction gain/loss | | \$ 5,230,000 |

To record the fair value of the cross-currency swap in the balance sheet with entries to OCI and a reclassification to income to offset the ASC 830 remeasurement of hedged debt.

The following journal entries would be recorded by Company ABC at the end of the second year on 31 December 20X2:

| | | |
|----------------------------------|--------------|--------------|
| Interest expense | \$ 6,667,000 | |
| Cash (paid to creditor) | | \$ 6,091,000 |
| Cash (paid to swap counterparty) | | 576,000 |

To record interest expense on both the debt and the swap.

No entry is made for any transaction loss from remeasuring the debt as the spot exchange rate has not changed since 31 December 20X1.

| | | |
|----------------------------|--------------|--------------|
| Cross-currency swap | \$ 2,098,000 | |
| Other comprehensive income | | \$ 2,098,000 |

To record the change in the fair value of the cross-currency swap in the balance sheet with an entry to OCI.

The following journal entries would be recorded by Company ABC at the end of the third year on 31 December 20X3:

| | | |
|----------------------------------|--------------|-----------------------------|
| Interest expense | \$ 6,667,000 | |
| Cash (paid to creditor) | | \$ 6,403,000 ²⁷¹ |
| Cash (paid to swap counterparty) | | 264,000 ²⁷² |

To record interest expense based on actual swap fixed rate.

| | | |
|-----------------------------------|--------------|--------------|
| Transaction gain/loss | \$ 5,497,000 | |
| Foreign-currency-denominated debt | | \$ 5,497,000 |

To adjust the carrying amount of the foreign-currency-denominated debt to the spot rate through the ASC 830 remeasurement to functional currency.

| | | |
|----------------------------|--------------|--------------|
| Cross-currency swap | \$ 6,759,000 | |
| Other comprehensive income | | \$ 1,262,000 |
| Transaction gain/loss | | 5,497,000 |

To record the change in the fair value of the cross-currency swap in the balance sheet with entries to OCI and a reclassification to income to offset the ASC 830 remeasurement of hedged debt.

The following journal entries would be recorded by Company ABC at the end of the fourth year on 31 December 20X4:

| | | |
|--|-----------------------|-----------------------------|
| Interest expense | \$ 6,667,000 | |
| Cash (received from swap counterparty) | 64,000 ²⁷³ | |
| Cash (paid to creditor) | | \$ 6,731,000 ²⁷⁴ |

To record interest expense on both the debt and the swap.

²⁷¹ (EUR100 million x 5.68% x 1.1273) rounded.

²⁷² ((USD102 million x 6.536%) – (EUR100 million x 5.68% x 1.1273)) rounded.

²⁷³ ((USD102 million x 6.536%) – (EUR100 million x 5.68% x 1.1851)) rounded.

²⁷⁴ (EUR100 million x 5.68% x 1.1851) rounded.

| | | |
|---|--------------|--------------|
| Transaction gain/loss | \$ 5,780,000 | |
| Foreign-currency-denominated debt | | \$ 5,780,000 |
| To adjust the carrying amount of the foreign-currency-denominated debt to the spot rate through the ASC 830 remeasurement to functional currency. | | |
| Cross-currency swap | \$ 5,909,000 | |
| Other comprehensive income | | \$ 129,000 |
| Transaction gain/loss | | 5,780,000 |
| To record the change in the fair value of cross-currency swap in the balance sheet with entries to OCI and a reclassification to income to offset the ASC 830 remeasurement of hedged debt. | | |

The following journal entries would be recorded by Company ABC at the end of the fifth year on 31 December 20X5:

| | | |
|---|------------------------|-----------------------------|
| Interest expense | \$ 6,667,000 | |
| Cash (received from swap counterparty) | 409,000 ²⁷⁵ | |
| Cash (paid to creditor) | | \$ 7,076,000 ²⁷⁶ |
| To record interest expense on both the debt and the swap. | | |

| | | |
|---|--------------|--------------|
| Transaction gain/loss | \$ 6,073,000 | |
| Foreign-currency-denominated debt | | \$ 6,073,000 |
| To adjust the carrying amount of the foreign-currency-denominated debt to functional currency at spot rate immediately prior to settlement of debt. | | |

| | | |
|---|--------------|--------------|
| Cross-currency swap | \$ 4,270,000 | |
| Other comprehensive income | 1,803,000 | |
| Transaction gain/loss | | \$ 6,073,000 |
| To record the change in the fair value of the cross-currency swap in the balance sheet with entries to OCI and a reclassification to income to offset the translation loss on hedged debt prior to termination of swap. | | |

| | | |
|---|---------------|---------------|
| Cash (received from swap counterparty) | \$ 22,580,000 | |
| Foreign-currency-denominated debt | 124,580,000 | |
| Cash (paid to creditor) | | \$124,580,000 |
| Cross-currency swap | | 22,580,000 |
| To record settlement of debt and cross-currency swap. | | |

Effect of the hedge on the income statement

Since the hedge was considered perfectly effective, the transaction loss on remeasuring the debt is completely offset by the gains reclassified from AOCI related to the swap. The resulting income statement effect for each period is simply the interest expense fixed by the actual swap (i.e., Company ABC records interest expense each period based on the fixed USD rate of 6.536% on a notional amount of USD102 million). As a result of the hedge, there are no fluctuations in the income statement as a result of changes in foreign exchange rates.

²⁷⁵ ((USD102 million x 6.536%) – (EUR100 million x 5.68% x 1.2458)) rounded.

²⁷⁶ (EUR100 million x 5.68% x 1.2458) rounded.

How we see it

In the example above, Company ABC designated a cash flow hedge to convert its fixed-rate, foreign-currency-denominated debt into fixed-rate, functional currency debt. Company ABC could have instead designated this hedging relationship as a fair value hedge. As noted in the table in Illustration 7-2 in section 7.9.2, when an entity hedges a fixed-rate foreign-denominated instrument for foreign currency risk only, the hedge can be designated as either a cash flow hedge or a fair value hedge.

We believe applying fair value hedge accounting to hedges of foreign-currency risk in fixed-rate, foreign-currency-denominated debt instruments can be beneficial for entities. The amendments in ASU 2017-12 allow entities to exclude changes in the fair value of a hedging derivative instrument attributable to time value (i.e., forward points) and cross-currency basis spread from the assessment of hedge effectiveness and recognize these excluded components in earnings using a systematic and rational method. As a result, applying fair value hedge accounting to these relationships (when changes in the fair value of the forward points and cross-currency basis spread of the cross-currency swap are excluded from the effectiveness assessment) provides a similar accounting result to that of a cash flow hedge without the potential negative consequences associated with missing a forecast that can result under cash flow hedge accounting if the hedged fixed-rate foreign-currency-denominated debt instrument is extinguished, replaced or sold.

Example 8: ***‘Dual purpose’ cash flow hedge of the ultimate settlement of a forecasted foreign-currency-denominated payable resulting from a forecasted purchase on credit using a single forward contract***

On 1 July, Company DEF, an entity that uses the US dollar as its functional currency, expects to purchase inventory from a foreign vendor for foreign currency (FC) amount of FC96,098 to be delivered on 30 September. On 1 July, FC96,098 is equivalent to USD100,000 based on the spot rate of 1.0406 (USD/FC). The accounts payable balance associated with this purchase is expected to be settled on 30 November.

Company DEF seeks to hedge the ultimate settlement of the liability on 30 November with a cash flow hedge using a single forward contract. For financial reporting purposes, there are two distinct exposures in this scenario. First, with respect to the purchase of the inventory on 30 September the company is exposed to foreign exchange movements for the three months from 1 July to 30 September. Second, with respect to the ASC 830 remeasurement of the accounts payable associated with the purchase, the company is exposed to foreign exchange movements for the two months from 30 September to 30 November.

Company DEF hedges its foreign currency exposures by entering into a forward contract to buy FC96,098 in five months at the forward rate of 1.090 (USD cost \$104,761). The initial spot/forward difference, or “forward points,” is \$4,761 for the five-month horizon. Given this spot/forward relationship, the USD interest rate implicit in the forward contract (also known as cost of carry) can be computed as 11.81% annually (0.9346% per month), based on the forward/spot ratio of \$104,761/\$100,000 for a five-month period.

ASC 815 acknowledges that a single derivative can be designated as a hedge of the single cash flow, even though it introduces two or more risks from a financial reporting standpoint. This example is based on the concepts illustrated in ASC 815-30-35-9 and ASC 815-30-55-106 through 55-112.

The accounting for the inventory purchase portion of this single cash flow hedge involves computing an implied three-month forward contract rate within the five-month forward contract actually used. This amount is determined using the interest rate (0.9346% per month) implied by the spot/forward differential that exists in the terms of the forward contract. This interest rate is then used to accrete the contractual functional currency payment required of the forward contract to the date the first financial reporting exposure (the inventory purchase) occurs. This process implies a forward contract as of 30 September (the date the inventory is delivered) to pay \$102,830. This premium indicated by this implied amount (\$102,830 – \$100,000, in the example) is considered to be related to the hedge of the purchase of the inventory. As a result, this amount (i.e., the forward points related to the hedge of the forecasted transaction), along with the

change in fair value of the forward contract due to changes in the spot rate from the inception of the hedge until the date the inventory is delivered, is included in the amount recorded in AOCI until the inventory subsequently affects earnings. (When the inventory is eventually sold and earnings are affected by this portion of the hedge, these amounts will be reclassified from AOCI and recorded as cost of goods sold.)

The remainder of the discount or premium from the forward contract is considered to be related to the accounts payable portion of this single cash flow hedge. However, since the payable is not recorded until three months into the hedge, only the portion of the “scheduled” amortization of the discount or premium (i.e., transaction gain/loss) for the period the accounts payable is recognized (October and November) will actually be recorded. Any remeasurement of the payable at spot exchange rates will be offset by a reclassification of a corresponding amount from AOCI.²⁷⁷

The market data relating to the forward contract are again shown below:

| Key assumptions and balances | | | | | | | |
|------------------------------|---------------------------------|---------------------|--|--|---|--|---|
| Dates | Spot rate USD/FC ²⁷⁸ | Forward rate USD/FC | Change in forward rates ²⁷⁹ | Forecasted purchase and ultimate payable in FC | Payable remeasured at USD spot rates ²⁸⁰ | USD payable accreted at implicit rate in forward contract (at 0.9346% per month) | Forward contract fair value in USD ²⁸¹ |
| 7/1 | 1.0406 | 1.0901 | 0.0000 | FC 96,098 | \$ 100,000 | \$ 100,000 | \$ – |
| 7/31 | 1.1000 | 1.1850 | 0.0948 | 96,098 | 105,708 | 100,935 | 8,905 |
| 8/31 | 1.1000 | 1.1631 | 0.0730 | 96,098 | 105,708 | 101,878 | 6,889 |
| 9/30 | 1.1000 | 1.1417 | 0.0516 | 96,098 | 105,708 | 102,830 | 4,896 |
| 10/31 | 1.1000 | 1.1207 | 0.0305 | 96,098 | 105,708 | 103,791 | 2,919 |
| 11/30 | 1.1100 | 1.1100 | 0.0199 | 96,098 | 106,669 | 104,761 | 1,908 |

Note: Amounts were rounded to simplify example.

Company DEF documents the hedging relationship as follows:

| Formal hedge designation documentation | |
|---|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge transaction is to hedge the foreign currency risk associated with (1) the anticipated purchase of inventory on 30 September and (2) beginning at that point, the settlement of the related accounts payable on 30 November against fluctuations between the USD and FC. |
| Date of designation | 1 July |
| Hedging instrument | A forward contract to buy FC96,098 on 30 November at a USD cost of \$104,761. |

²⁷⁷ In the case of the short-term dual purpose hedge illustrated here, ASC 815-30-35-9 would also allow the amount of the hedge's cost or income ascribed to each period to be determined using a pro rata method (based on the number of days or months of the hedging relationship) or a method that uses two foreign currency forward exchange rates. The first foreign currency forward exchange rate would be based on the maturity date of the forecasted purchase or sale transaction. The second foreign currency forward exchange rate would be based on the settlement date of the resulting account receivable or account payable. These methods are illustrated in ASC 815-30-55-106 through 55-112.

²⁷⁸ Assumed that spot rate remains constant for several periods to highlight the effect of the spot forward difference on the journal entries.

²⁷⁹ The difference between current and original (1 July) forward rate.

²⁸⁰ FC Notional x Spot Rate.

²⁸¹ The fair value of the forward is calculated by comparing the current forward rate with the contracted rate (1.091, or \$104,761), and discounting the difference at a risk-free rate, assumed to be 7% in all periods. For simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. See chapter 4 for further discussion. This dual-purpose hedge follows a cash-flow hedge accounting model, and as such the impact of the credit valuation adjustment is consistent with other cash-flow hedge accounting models. As described in chapters 4 and 6, changes in the creditworthiness of parties to a derivative will impact the fair value of the derivative and hypothetical derivative in an equal manner, resulting in no mismatch due solely to changes in the credit valuation adjustment.

| | |
|---|---|
| Hedged item | The forward contract is designated as a single cash flow hedge that encompasses the variability of USD cash flows attributable to the FC/USD dollar exchange rate risk related to the settlement on 30 November of the FC-denominated payable resulting from a forecasted purchase of inventory on credit on 30 September. |
| How hedge effectiveness will be assessed | The effectiveness of the hedging relationship will be assessed periodically by comparing the current terms of the actual derivative with those of the hypothetically perfect derivative that exactly match the hedged item. As long as the amount and timing of the settlement of the payable and the forecasted purchase of the inventory remain the same, the hypothetical forward contract will be identical to the actual forward contract used. If the critical terms no longer match exactly, hedge effectiveness (both prospective and retrospective) will be assessed by evaluating the cumulative dollar-offset ratio for the actual derivative and the hypothetically perfect derivative. Because the single derivative has a dual hedging purpose during its five-month life, hedge effectiveness will be evaluated separately for each of the two stages. Hedge effectiveness with respect to the forecasted inventory purchase will be assessed based on changes in the forward rate until the anticipated purchase occurs at the end of September. The effectiveness of the hedge of the accounts payable will be evaluated based on the change in the fair value of its anticipated settlement. Each period, the company will evaluate counterparty credit risk and the continued probability of the amount and timing of the hedged transactions. The implied interest rate included in the forward contract will be recorded in transaction gain/loss during October and November (i.e., the period that the accounts payable balance is outstanding). Other changes in the fair value of the forward contract are attributable to spot fluctuations that are effective as a hedge of the ultimate payable in USD. |

The account activity and balances relating to this transaction will be as follows:

| Journal entries over term of the transaction | | | | | | | |
|---|-------------------------------|------------------|----------------|----------------|--------------------------|--|--|
| Dates | | Inventory | Forward | Payable | OCI²⁸² | Transaction (gain)/loss - forward²⁸³ | Transaction (gain)/loss - payable |
| 7/31 | Mark forward to FV | \$ - | \$ 8,905 | \$ - | \$ (8,905) | \$ - | \$ - |
| 7/31 | Balances | - | 8,905 | - | (8,905) | - | - |
| 8/31 | Mark forward to FV | - | (2,016) | - | 2,016 | - | - |
| 8/31 | Balances | - | 6,889 | - | (6,889) | - | - |
| 9/30 | Purchase inventory | 105,708 | - | (105,708) | - | - | - |
| 9/30 | Mark forward to FV | - | (1,993) | - | 1,993 | - | - |
| 9/30 | Balances | 105,708 | 4,896 | (105,708) | (4,896) | - | - |
| 10/31 | Mark forward to FV | - | (1,977) | - | 1,016 | 961 | - |
| 10/31 | Balances | 105,708 | 2,919 | (105,708) | (3,880) | 961 | - |
| 11/30 | Remeasure payable to spot | - | - | (961) | - | - | 961 |
| 11/30 | Mark forward to FV | - | (1,011) | - | 1,002 | 970 | (961) |
| 11/30 | Balances | 105,708 | 1,908 | (106,669) | (2,878) | 1,931 | - |
| 11/30 | Cash settlement | - | (1,908) | 106,669 | - | - | - |
| 11/30 | Final balances ²⁸⁴ | \$105,708 | \$ - | \$ - | \$ (2,878) | \$ 1,931 | \$ - |

²⁸² Represents the movement in the fair value of the derivative reduced/increased by the movement in the spot rate to offset the remeasurement of the accounts payable and to reflect the recognition of the spot/forward difference existing as of 30 September (\$104,761 - \$102,830 = \$1,931) in transaction gain/loss using the effective interest rate method. In addition, the portion of AOCI associated with the anticipated purchase of the inventory will only be reclassified from AOCI once the transaction affects earnings (e.g., once the inventory is sold to a third party).

²⁸³ Represents the recognition of the spot/forward difference existing as of 30 September, which is recorded in earnings.

²⁸⁴ The portion of the change in value of the forward contract remaining in AOCI after the settlement of the payable is determined as the difference between the forecasted cost of the inventory implied by the forward contract (\$102,830) and its actual cost based on the spot exchange rate at the date purchased (\$105,708), or a difference of \$2,878.

The following journal entries would be made by Company DEF over the life of the hedge:

No entry is required on entering the forward contract on 1 July as the fair value of the contract is zero.

On 31 July:

| | | | |
|----------------------------|----|-------|----------|
| Forward contract | \$ | 8,905 | |
| Other comprehensive income | | | \$ 8,905 |

To record the change in the fair value of the derivative in OCI.

On 31 August:

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 2,016 | |
| Forward contract | | | \$ 2,016 |

To record the change in the fair value of the derivative in OCI.

On 30 September:

| | | | |
|---------------------------------|----|---------|------------|
| Inventory | \$ | 105,708 | |
| Accounts payable (at spot rate) | | | \$ 105,708 |

To record the inventory purchase at the spot exchange rate.

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 1,993 | |
| Forward contract | | | \$ 1,993 |

To record the change in the fair value of the derivative in OCI.

On 31 October:

| | | | |
|----------------------------|----|-------|----------|
| Other comprehensive income | \$ | 1,016 | |
| Transaction gain/loss | | 961 | |
| Forward contract | | | \$ 1,977 |

To record the change in the fair value of the derivative, taking into account the cost implicit in the forward contract (USD yield of 0.9346% per month) beginning with the date the payable was first recorded (30 September). There is no additional transaction gain or loss because spot rates have stayed the same.

On 30 November:

| | | | |
|-----------------------|----|-----|--------|
| Transaction gain/loss | \$ | 961 | |
| Accounts payable | | | \$ 961 |

To record a transaction loss on the payable $[(1.10)(FC96,098) - (1.11)(FC96,098)]$.

| | | | |
|----------------------------|----|-------|--------|
| Other comprehensive income | \$ | 1,002 | |
| Transaction gain/loss | | 970 | |
| Transaction gain/loss | | | \$ 961 |
| Forward contract | | | 1,011 |

To record the change in the fair value of the derivative, taking into account the portion relating to the transaction loss on the accounts payable in income and the cost implicit in the forward contract (USD yield of 0.9346% per month).

| | | | |
|------------------|----|-------|----------|
| Cash | \$ | 1,908 | |
| Forward contract | | | \$ 1,908 |

To record the settlement of the derivative contract.

| | | |
|------------------|------------|------------|
| Accounts payable | \$ 106,669 | |
| Cash | | \$ 106,669 |

To record the settlement of the payable at spot rate.

At whatever future date the inventory is sold:

| | | |
|----------------------------|------------|------------|
| Cost of sales | \$ 102,830 | |
| Other comprehensive income | 2,878 | |
| Inventory | | \$ 105,708 |

To record the sale of the inventory and reclassify remaining amount out of AOCI.

The cost of goods sold recorded is equivalent to the implied three-month forward rate in the five-month forward contract that was originally used to hedge the anticipated purchase of the inventory.

Effect of the hedge on the income statement

The cost of sales recorded when the inventory was sold represented the implied three-month forward price within the five-month forward contract used for the dual-purpose cash flow hedge. Remeasurement of the resulting payable was completely offset in the income statement by the change in fair value of the forward contract (i.e., attributable to the change in the spot rate); however, the cost of the hedge considered to be related to the accounts payable portion of this hedge (totaling \$1,931) was recognized on an effective interest basis over the two-month period that the payable was outstanding.

How we see it

In the dual-purpose cash flow hedge shown in the example above, the forward points were not excluded from the assessment of hedge effectiveness. Instead, they were accounted for in accordance with the guidance in ASC 815-30-35-9 and 815-30-55-106 that requires the cost (or income) of the hedge to be ascribed to each period of the hedging relationship (i.e., allocated between the hedge of the forecasted transaction and the hedge of the payable or receivable). Before the adoption of ASU 2017-12, the exclusion of the forward points from the assessment of hedge effectiveness would result in earnings volatility since the change in the fair value of the excluded components was required to be fair valued through earnings.

After the adoption of ASU 2017-12, entities may find it beneficial to designate a single dual-purpose cash flow hedge and choose to exclude the change in the fair value of the forward points from the assessment of hedge effectiveness. Under this approach, the initial value of the spot forward difference would be amortized into earnings using a systematic and rational method over the entire life of the hedging relationship (i.e., over a five-month period in the illustrative example above). If this approach is used, the amount reclassified from AOCI when the forecasted transaction affects earnings will be limited to the change in spot rate from hedge inception to the date of the forecasted transaction.

Alternatively, entities may also consider hedging this exposure in two separate hedging relationships as discussed in ASC 815-20-25-34(b): (1) a cash flow hedge of the variability of functional currency cash flows attributable to foreign exchange risk related to the forecasted foreign-currency-denominated sale or purchase on credit and (2) a foreign currency fair value hedge of the resulting recognized foreign-currency-denominated receivable or payable. Such an approach may be more advantageous than it had been historically since entities are no longer required to separately measure and report any hedge ineffectiveness on the cash flow hedge and can amortize the excluded components in the fair value hedge.

7.11 Net investment hedges

7.11.1 What is a net investment hedge?

ASC 815 allows the hedging of the foreign currency risk of a net investment in a foreign operation with either a foreign currency derivative instrument or a foreign-currency-denominated nonderivative financial instrument (e.g., foreign-currency-denominated debt).

Investments in foreign operations include investments in incorporated and unincorporated foreign operations with a functional currency other than the reporting currency. This includes subsidiaries, divisions, branches, joint ventures and investments accounted for under the equity method. The change in the carrying amount of these investments, measured at the spot exchange rate, is recorded in the CTA section within OCI. Simultaneously, the entire change in the fair value (included in the assessment of effectiveness) of a highly effective hedging instrument is also recorded in CTA.

ASC 830 also allows intercompany foreign currency transactions to be accounted for in a similar manner as net investments when the transactions are of a “long-term investment” nature. Long-term investment nature can be defined as intercompany transactions for which settlement is not planned or anticipated in the foreseeable future. Entities must evaluate intercompany accounts to determine whether they are of a long-term investment nature. If there is only one intercompany account between the US parent and the foreign entity in which all transactions are recorded, entities will have to determine and segregate the long-term investment component to determine the amount of the transaction adjustment to make to the CTA section of OCI. The composition of a net investment in a foreign operation and the treatment of the translation gain or loss on the net investment provided by ASC 830 are not modified by ASC 815.

For example, Roxy Accessories uses the US dollar as functional currency and has a Canadian subsidiary, Ludwig Industries, which uses the Canadian dollar as its functional currency. Ludwig Industries and Roxy Accessories have an intercompany balance of CAD1,000,000 that is not expected to be settled in the foreseeable future. In this circumstance, the CAD1,000,000 could be treated as part of the net investment and changes in the carrying amount as a result of exchange rate changes could be accounted for in the CTA section of OCI. On the other hand, if the CAD1,000,000 is made up of a number of individual amounts (e.g., invoices from the purchase of raw materials) that are repaid and replaced on a regular basis, the CAD1,000,000 is not long term in nature, and changes in the carrying amount as a result of exchange rate changes should be accounted for in earnings.

7.11.2 Qualifying criteria specific to net investment hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Hedging Instruments in Net Investment Hedges

815-20-25-66

A derivative instrument or a nonderivative financial instrument that may give rise to a foreign currency transaction gain or loss under Subtopic 830-20 can be designated as hedging the foreign currency exposure of a net investment in a foreign operation provided the conditions in paragraph 815-20-25-30 are met. A nonderivative financial instrument that is reported at fair value does not give rise to a foreign currency transaction gain or loss under Subtopic 830-20 and, thus, cannot be designated as hedging the foreign currency exposure of a net investment in a foreign operation.

815-20-25-69

To designate a derivative instrument as a hedge of a net investment, an entity shall have an expectation that the derivative instrument will be effective as an economic hedge of foreign exchange risk associated with the hedged net investment. Accordingly, if any difference in **notional amount**, currencies, or underlyings is present, the entity shall establish an expectation that the actual derivative instrument designated as the hedging instrument will be effective as an economic hedge.

815-20-25-70

For example, if an entity designates a derivative instrument that has an underlying exchange rate involving a currency other than the functional currency of the net investment, that exchange rate shall be expected to move in tandem with the exchange rate between the functional currency of the hedged net investment and the investor's functional currency. Use of a currency different from the exposed currency is not limited to cases in which it is not practical or feasible to hedge in the exposed currency if all other qualifying criteria are met.

As mentioned earlier in this chapter, the FASB decided to make two exceptions to the general provisions of Statement 133 (as codified in ASC 815) so as not to change existing practice under Statement 52 (as codified in ASC 830). These exceptions were necessary because the scope of the FASB's project did not include a comprehensive reconsideration of accounting for foreign currency transactions and would otherwise have created anomalies between Statement 133 and the guidance in Statement 52. The two exceptions allow entities to:

- ▶ Designate a nonderivative financial instrument as a hedging instrument for foreign currency exposure of an unrecognized firm commitment
- ▶ Designate a financial instrument that is denominated in a foreign currency (derivative or nonderivative) as a hedge of the foreign currency exposure of a net investment in a foreign operation

The general hedging requirements as described in chapter 4 and earlier in this chapter do not apply to hedges of net investments in foreign operations. Rather, ASC 815 establishes the same limited criteria as Statement 52 had for qualifying for hedge accounting of net investments. It only requires a foreign currency transaction to be designated as a hedge and for the hedging relationship to be effective as an economic hedge of a net investment. In addition, qualification for a net investment hedge requires that the hedged transaction be denominated in a currency other than the hedging unit's functional currency and the hedging unit (or another entity in the consolidated group that has the same functional currency when there are no intervening entities that have a different functional currency) that has the exposure be a party to the hedging instrument.

The exception allowing hedges explicitly permitted by Statement 52 prior to Statement 133 was necessary because a net investment in a foreign operation would not meet the general criteria established by ASC 815 that require a hedged item to be a single item or a group of similar items. From the perspective of the consolidated financial statements, a net investment consists of a portfolio of assets and liabilities sharing dissimilar risks that would not meet the general criterion of ASC 815. Consequently, hedged net investments should continue to be accounted for in accordance with ASC 830 notwithstanding any of the provisions of ASC 815 relating to fair value hedges of the resulting exposures.

7.11.3 Accounting treatment for a net investment hedge (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Net Investment Hedges

Subsequent Measurement

Overall

815-35-35-1

The gain or loss on a hedging **derivative instrument** (or the foreign currency transaction gain or loss on the nonderivative hedging instrument) that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation shall be reported in the same manner as a translation adjustment (that is, reported in the cumulative translation adjustment section of **other comprehensive income**).

815-35-35-2

The hedged net investment shall be accounted for consistent with Topic 830. The provisions of Subtopic 815-25 for recognizing the gain or loss on assets designated as being hedged in a **fair value hedge** do not apply to the hedge of a net investment in a foreign operation.

ASC 830-20-35-3 requires that gains and losses from the following two foreign currency transactions be reported consistent with translation adjustments in the CTA section of OCI and should not be included in net income:

- ▶ Foreign currency transactions that *are designated* as, and *are effective* as, economic hedges of a net investment
- ▶ Intra-entity foreign currency transactions that are of a long-term investment nature, when the entities to the transaction are consolidated, combined or accounted for by the equity method in the reporting enterprise's financial statements

ASC 815 permits a *derivative* or a *nonderivative financial instrument* that may give rise to a foreign currency transaction gain or loss (as provided for under ASC 830) to be designated as a hedge of the foreign currency exposure of a net investment in a foreign operation. The gain or loss on a hedging derivative instrument (or the foreign currency transaction gain or loss on the nonderivative hedging instrument) that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation should be reported in the same manner as a translation adjustment (i.e., in the CTA section of OCI) to the extent it is effective as a hedge. Note that if a nonderivative instrument is used as the hedging instrument in a net investment hedge, it may also be the hedged item in a fair value hedge of interest rate risk.²⁸⁵

How we see it

As noted, ASC 815 allows a foreign-currency-denominated debt instrument to be designated as both the hedging instrument in a hedge of a net investment in a foreign entity and as the hedged item in a fair value hedge of interest rate risk. This is commonly referred to as a “dual hedge” and is illustrated in ASC 815-20-55-127 through 55-129. Before an entity adopted ASU 2017-12, this strategy usually did not result in earnings volatility, other than the potential effect of any credit valuation adjustment on the derivative used in the fair value hedge of interest rate risk. This is because the remeasurement of the fair value hedge basis adjustment on the foreign-denominated debt was recorded in current-period earnings as ineffectiveness resulting from the notional mismatch in the net investment hedge. The recognition of this ineffectiveness in earnings served to offset the foreign exchange remeasurement on the foreign-denominated interest rate swap designated as the hedging instrument in the fair value hedge.

²⁸⁵ See ASC 815-20-55-38.

Because ASU 2017-12 eliminated the separate measurement and recognition of ineffectiveness for net investment hedges, the gain or loss on the remeasurement of the fair value hedge basis adjustment at the current spot exchange rate is no longer recognized immediately in earnings but is instead deferred in AOCI, creating a recognition and presentation mismatch for this strategy. The FASB has indicated that this was an unintended consequence of ASU 2017-12. As part of its existing project on hedge accounting improvements, the FASB is considering potential amendments specific to this hedging strategy that would serve to eliminate the earnings volatility that was created upon the adoption of ASU 2017-12. Interested parties should monitor developments in this area.

7.11.4 Instruments that qualify as hedging instruments in a net investment hedge, including complex hedging instruments

ASC 815 allows for the use of both nonderivative and derivative instruments as the hedging instrument in a net investment hedge. A typical example of a nonderivative instrument would be foreign-currency-denominated debt. A typical example of a derivative instrument would be a foreign exchange forward contract. However, not all net investment hedging strategies are straightforward.

The FASB realized that many entities may have used combinations of certain long-term compound derivatives (e.g., cross-currency interest rate swaps) and functional-currency-denominated debt under a pre-Statement 133 "synthetic accounting model" as a hedge of a net investment in a foreign operation under Statement 52. Special transition provisions were incorporated in Statement 133 to address those situations. In addition, the FASB specifically addressed the following two unique hedging relationships:

- ▶ Hedging a net investment with a compound derivative that incorporates exposure to multiple risks
- ▶ Hedging a net investment with the combination of a derivative and a cash instrument

Each of these situations is discussed below.

7.11.4.1 Hedging a net investment with a compound derivative that incorporates exposure to multiple risks (updated September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging – General

Recognition

Hedging Instruments in Net Investment Hedges

815-20-25-67

Hedging instruments that are eligible for designation in a net investment hedge include, among others, both of the following:

- a. A receive-variable-rate, pay-variable-rate cross-currency interest rate swap, provided both of the following conditions are met:
 1. The interest rates are based on the same currencies contained in the swap.
 2. Both legs of the swap have the same repricing intervals and dates.
- b. A receive-fixed-rate, pay-fixed-rate cross-currency interest rate swap. A cross-currency interest rate swap that has two fixed legs is not a compound derivative instrument and, therefore, is not subject to the criteria in (a).

815-20-25-68

A cross-currency interest rate swap that has either two variable legs or two fixed legs has a fair value that is primarily driven by changes in foreign exchange rates rather than changes in interest rates. Therefore, foreign exchange risk, rather than interest rate risk, is the dominant risk exposure in such a swap.

815-20-25-68A

Under the guidance in paragraph 815-20-25-71(d)(1), a cross-currency interest rate swap with one fixed-rate leg and one floating-rate leg cannot be designated as the hedging instrument in a net investment hedge.

Instruments Specifically Ineligible for Designation as Hedging Instruments**815-20-25-71**

Besides those hedging instruments that fail to meet the specified eligibility criteria, none of the following shall be designated as a hedging instrument for the respective hedges:

- a. With respect to fair value hedges, cash flow hedges, and net investment hedges:
 1. A nonderivative instrument, such as a U.S. Treasury note, except as provided in paragraphs 815-20-25-58 through 25-59 and 815-20-25-66
 2. Components of a compound derivative instrument representing different risks
 3. A hybrid financial instrument that an entity irrevocably elects under paragraph 815-15-25-4 to initially and subsequently measure in its entirety at fair value (with changes in fair value recognized in earnings)
 4. A hybrid instrument for which an entity cannot reliably identify and measure the embedded derivative instrument that paragraph 815-15-25-1 requires be separated from the host contract
 5. Any of the individual components of a compound embedded derivative that is separated from the host contract.
- d. With respect to net investment hedges only:
 1. A compound derivative instrument that has multiple underlyings—one based on foreign exchange risk and one or more not based on foreign exchange (for example, the price of gold or the price of an S&P 500 contract), except as indicated in paragraph 815-20-25-67 for certain cross-currency interest rate swaps
 2. A derivative instrument and a cash instrument in combination as a single hedging instrument (that is, an entity shall not consider a separate derivative instrument and a cash instrument as a single synthetic instrument for accounting purposes)

ASC 815 precludes an entity from using a compound derivative that has multiple underlyings – one based on foreign exchange risk and one or more *not* based on foreign exchange risk – as the hedging instrument in a net investment hedge. An example of this type of instrument would be a foreign currency derivative that includes periodic exchanges of fixed interest payments for variable interest payments. Such an investment is not eligible to be designated as a net investment hedging instrument under ASC 815.

However, ASC 815 allows a cross-currency interest rate swap that has two fixed legs (i.e., receive-fixed-rate, pay-fixed-rate) to be designated as the hedging instrument in a net investment hedge. In addition, a receive-floating-rate, pay-floating-rate cross-currency interest rate swap is explicitly allowed to be designated as the hedging instrument provided the following conditions are met:

- ▶ The interest rates are based on the same currencies contained in the swap.
- ▶ Both legs of the swap have the same repricing intervals and dates.

The reason for this is that a cross-currency interest rate swap with either two floating legs or two fixed legs has a fair value that is primarily driven by changes in foreign exchange rates rather than changes in interest rates. Therefore, foreign exchange risk, rather than interest rate risk, is the dominant risk exposure in such a swap.



Reference rate reform considerations

ASC 848 provides temporary optional expedients and exceptions to the US GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens of the expected market transition from LIBOR and other interbank offered rates to alternative reference rates, such as SOFR.

Relevant relief: This guidance allows entities to disregard the condition in ASC 815-20-25-67(a)(2) that both legs of a cross-currency swap have the same repricing intervals and dates to be eligible as the hedging instrument in a net investment hedge.

Effective date: This guidance became effective upon issuance and generally can be applied through 31 December 2024.

For more information on reference rate reform, refer to ASC 848 and our Technical Line, [A closer look at the FASB accounting relief related to reference rate reform.](#)

7.11.4.2

Hedging a net investment with a combination of a derivative and a cash instrument

ASC 815-20-25-71 states that a derivative instrument and a cash instrument may not be designated *in combination* as a single hedging instrument in a hedge of a net investment in a foreign operation. Although ASC 815 permits nonderivative instruments to be designated as net investment hedges, it prohibits considering a separate derivative and a cash instrument as a single synthetic instrument for accounting purposes.

For example, assume that a parent company that has the US dollar as its functional and reporting currency has a net investment in a Japanese yen functional currency subsidiary. The parent borrows in euros on a fixed-rate basis and simultaneously enters into a receive-euro/pay-Japanese yen currency swap (for all interest and principal payments) to synthetically convert the euro-denominated borrowing into a yen-denominated borrowing. The FASB concluded that synthetically combining the euro-denominated borrowing and the currency swap to create a yen-denominated borrowing for designation as a single hedging instrument in a net investment hedge is not permitted.

In contrast, an entity could designate a foreign currency derivative and a foreign-currency-denominated cash instrument individually as hedging different portions of its net investment in a foreign operation provided the derivative and the cash instrument each individually qualified as a hedging instrument. For example, a Japanese yen-US dollar forward contract and a Japanese yen-denominated cash instrument could each be designated as the hedging instrument in a hedge of different portions of the net investment in a Japanese yen functional currency subsidiary (that is, two separate hedging relationships would be designated).

7.11.5

Assessing effectiveness and measuring hedge results in a net investment hedge

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Net Investment Hedges

Subsequent Measurement

Assessing Hedge Effectiveness and Measuring Hedge Results

815-35-35-4

If a derivative instrument is used as the hedging instrument, an entity may assess the effectiveness of a net investment hedge using either a method based on changes in spot exchange rates (as specified in paragraphs 815-35-35-5 through 35-15) or a method based on changes in forward exchange rates (as specified in paragraphs 815-35-35-17 through 35-26). This guidance can also be applied to purchased options used as hedging instruments in a net investment hedge. However, an entity shall consistently use the same method for all its net investment hedges in which the hedging instrument

is a derivative instrument; use of the spot method for some net investment hedges and the forward method for other net investment hedges is not permitted. An entity may change the method that it chooses to assess the effectiveness of its net investment hedges in accordance with paragraphs 815-20-55-55 through 55-56A.

815-35-35-4A

Hedge effectiveness shall be assessed on a quantitative basis at hedge inception in accordance with paragraph 815-20-25-3(b)(2)(iv)(01) unless one of the exceptions in that paragraph applies. Subsequent assessments of hedge effectiveness may be performed either on a quantitative basis or on a qualitative basis in accordance with paragraphs 815-20-35-2 through 35-2F.

ASC 815 requires that the gain or loss on a hedging derivative instrument (or the foreign currency transaction gain or loss on a nonderivative hedging instrument) that is designated as, and is effective as, an economic hedge of the net investment in a foreign operation be reported in the same manner as a translation adjustment of the net investment. The guidance in ASC 815-35-35-1 through 35-26 addresses how to assess hedge effectiveness and measure hedge results and includes implementation guidance for when derivatives or nonderivatives are used as hedging instruments.

Entities are able to assess the effectiveness of net investment hedges based on changes in either the spot rate (i.e., the spot method) or in the forward rate (i.e., the forward rate method). In addition, the guidance in ASC 815-35-35-4 requires an entity to consistently use the same method for all of its net investment hedges in which the hedging instrument is a derivative instrument. As a result, entities are prohibited from using the spot method to assess effectiveness and measure hedge results for certain outstanding net investment hedges and the forward method for others.

However, ASU 2017-12 amended the guidance in ASC 815-35-35-4 to indicate that “[a]n entity may change the method that it chooses to assess the effectiveness of its net investment hedges in accordance with paragraphs 815-20-55-55 through 55-56A.”

How we see it

There are different views on how much flexibility the revised guidance in ASC 815-35-35-4 provides entities to subsequently change methodologies for these types of hedges. While entities may be able to support changing their existing assessment methodologies for all outstanding net investment hedging relationships upon the adoption of ASU 2017-12 (e.g., from the forward method to the spot method), some constituents believe it would then be difficult to support the notion that a subsequent change back to the forward method (e.g., for future net investment hedges after all outstanding relationships have matured or been discontinued) represents an “improved” methodology, as discussed in ASC 815-20-35-19 and 55-56.

This may be an important issue for entities that view their net investment hedge strategies differently depending, for example, on whether the investment is funded in the functional currency of the consolidated entity (e.g., US-dollar-denominated debt) or in the functional currency of the entity in which the investment is made.

In our view, the entity’s ability to subsequently change methodologies will be based on facts and circumstances. However, an entity’s desire to subsequently change methodologies solely to achieve a particular income statement effect (e.g., amortization of positive forward points under the spot method versus deferral of negative forward points in CTA under the forward method) would not seem to represent an improved methodology.

7.11.5.1 Derivatives used as hedging instruments – assessing effectiveness based on forward rates

Under the forward rate method, if the hedging relationship is highly effective, all changes in fair value of the derivative are reported in the CTA section of OCI, consistent with the treatment of the hedged translation adjustment. This would include the time value component of purchased options, the forward points on a forward contract or the interest accrual/periodic cash settlement components of qualifying receive-floating-rate, pay-floating-rate and receive-fixed-rate, pay-fixed-rate cross-currency interest rate swaps.

The entire change in fair value of the hedging derivative recorded in CTA (as discussed above) will remain in CTA until the period in which the hedged item affects earnings (i.e., when the CTA associated with the hedged net investment is recognized in earnings as part of the gain or loss on the sale or liquidation of the investment or subsidiary). At that time, the amount in CTA is reclassified to the same income statement line where the earnings effect of the hedged item is presented (e.g., gain or loss on sale of subsidiary). However, because amounts accumulated in CTA are not released until a sale or liquidation of the hedged investment in a foreign entity, any mismatch between the change in fair value of the hedging instrument and the hedged translation adjustment is deferred in CTA could remain there for an extended period of time. See section 4.4.3 in our FRD, *Foreign currency matters*, for additional discussion on the disposition of CTA.

ASC 815-35-35-17A notes that a hedging relationship under the forward method is considered perfectly effective if both (1) the notional amount of the hedging derivative equals the portion of the net investment designated as being hedged and (2) the derivative's underlying relates solely to the foreign exchange rate between the functional currency of the hedged net investment and the investor's functional currency. In this case, a quantitative effectiveness assessment methodology is not required.

As stated in ASC 815-35-35-18, the hedging relationship would not be considered to be perfectly effective if any of the following conditions are present:

- ▶ The notional amount of the derivative does not match the portion of the net investment designated as being hedged.
- ▶ The derivative's underlying exchange rate is not the exchange rate between the functional currency of the hedged net investment and the investor's functional currency.
- ▶ When the hedging derivative instrument is a cross-currency interest rate swap eligible for designation in a net investment hedge (refer to section 7.11.4.1 for discussion of the eligibility criteria), both legs are not based on comparable interest rate curves (for example, pay foreign currency based on three-month LIBOR, receive functional currency based on three-month commercial paper rates).

The assessment of hedge effectiveness due to the differences between the hedging derivative and the hedged net investment would be as follows:

Different notional amounts – If the notional amount of the derivative designated as a hedge of the net investment does not match the portion of the net investment designated as being hedged, hedge effectiveness would be assessed by comparing the change in fair value of the actual derivative designated as the hedging instrument and the change in fair value of a "hypothetical" derivative contract that has a notional amount that matches *the portion* of the net investment being hedged. The hypothetical derivative must also have a maturity that matches the maturity of the actual derivative designated as the net investment hedge.

Different currencies – If the derivative designated as the hedging instrument has an underlying foreign exchange rate that is not the exchange rate between the functional currency of the hedged net investment and the investor’s functional currency (i.e., a “tandem currency” hedge), hedge effectiveness would be assessed by comparing the change in fair value of the actual cross-currency hedging instrument with the change in fair value of a hypothetical derivative contract that has as its underlying the foreign exchange rate between the functional currency of the hedged net investment and the investor’s functional currency. The hypothetical derivative should also have a maturity date and repricing and payment frequencies for any interim payments that match those of the actual derivative designated as the net investment hedge.

Multiple underlyings – Derivatives with multiple underlyings that are permitted to be designated as a hedge of a net investment are receive-floating-rate/pay-floating-rate cross-currency interest rate swaps that meet certain criteria as discussed in section 7.11.4.1. Receive-fixed-rate/pay-fixed-rate cross-currency interest rate swaps are also permitted to be designated as a hedge of a net investment. If such cross-currency interest rate swaps are designated as the hedging instrument in a net investment hedge, hedge effectiveness would be assessed by comparing the change in fair value of the actual cross-currency interest rate swap designated as the hedging instrument with the change in fair value of a hypothetical cross-currency interest rate swap. That hypothetical swap should have interest rates that are based on the same currencies contained in the hypothetical swap (i.e., the currency associated with the risk being hedged), a maturity that matches the maturity of the actual cross-currency interest rate swap designated as the net investment hedge, and, if a receive-floating-rate/pay-floating-rate swap is used, both legs of the hypothetical swap must have the same repricing intervals and dates.

As long as the assessment of hedge effectiveness supports that the hedging relationship continues to be highly effective, the entire change in the fair of the derivative instrument would be recorded in CTA as discussed above. This is because, subsequent to the adoption of ASU 2017-12, entities are no longer required to separately measure or report ineffectiveness associated with highly effective hedging relationships.

However, it should be noted that to designate a derivative as a hedge of a net investment, an entity is required to have an expectation that the derivative will be effective as an economic hedge of foreign exchange risk associated with the hedged net investment. Accordingly, if any difference in notional amount, currencies or underlyings as described above is present, the entity must establish an expectation that the actual derivative designated as the hedging instrument will be effective as an economic hedge. This situation will generally be obvious when the currency underlying the derivative contract is the same as the functional currency of the hedged net investment. However, if an entity designates a derivative that has an underlying exchange rate involving a currency *other* than the functional currency of the net investment, that exchange rate must be expected to move in tandem with the exchange rate between the functional currency of the hedged net investment and the investor’s functional currency.

ASC 815 continues to permit hedging foreign currency risk on an after-tax basis, provided that the documentation of the hedge at its inception indicated that the assessment of effectiveness will be on an after-tax basis (rather than on a pretax basis). If an entity has elected to hedge foreign currency risk on an after-tax basis and has documented this intention at inception, it should adjust the notional amount of its derivative appropriately to reflect the effect of tax rates. In that case, the hypothetical derivative used to assess effectiveness should have a notional amount that has been appropriately adjusted (pursuant to the documentation at inception) to reflect the effect of the after-tax approach. In addition, even if an entity hedges on a pretax basis, the tax effect will be reflected in AOCI.

7.11.5.2

Derivatives used as hedging instruments – assessing effectiveness based on spot rates**Excerpt from Accounting Standards Codification****Derivatives and Hedging – Net Investment Hedges***Subsequent Measurement**Hedging instrument Is a Derivative Instrument***815-35-35-5**

The change in the **fair value** of the derivative instrument attributable to changes in the difference between the forward rate and **spot rate** would be excluded from the assessment of hedge effectiveness if all of the following conditions are met:

- a. The **notional amount** of the derivative instrument designated as a hedge of a net investment in a foreign operation matches (that is, equals) the portion of the net investment designated as being hedged.
- b. The derivative instrument's underlying exchange rate is the exchange rate between the functional currency of the hedged net investment and the investor's functional currency.
- c. When the hedging derivative instrument is a cross-currency interest rate swap, it is eligible for designation in a net investment hedge in accordance with paragraph 815-20-25-67.

In that circumstance, the hedging relationship would be considered perfectly effective, and no quantitative effectiveness assessment is required at hedge inception. (See paragraph 815-20-25-3(b)(2)(iv)(01).)

815-35-35-5A

An entity shall recognize in earnings the initial value of the component excluded from the assessment of effectiveness using a systematic and rational method over the life of the hedging instrument. Any difference between the change in fair value of the excluded component and amounts recognized in earnings under that systematic and rational method shall be recognized in the same manner as a translation adjustment (that is, reported in the cumulative translation adjustment section of other comprehensive income).

815-35-35-5B

An entity alternatively may elect to record changes in the fair value of the excluded component currently in earnings. This election shall be applied consistently to similar hedges in accordance with paragraph 815-20-25-81.

815-35-35-6

The interest accrual (periodic cash settlement) components of qualifying receive-variable-rate, pay-variable-rate and receive-fixed rate, pay-fixed-rate cross-currency interest rate swaps shall also be reported directly in earnings.

815-35-35-7

The change in fair value of the derivative instrument attributable to changes in the spot rate shall be reported in the same manner as a translation adjustment (that is, reported in the cumulative translation adjustment section of other comprehensive income).

815-35-35-8

The spot-to-spot changes in value reported in the cumulative translation adjustment section of other comprehensive income shall not be discounted.

Under the spot rate method, if (1) the notional amount of the hedging derivative equals the portion of the net investment designated as being hedged, (2) the derivative's underlying exchange rate is the exchange rate between the functional currency of the hedged net investment and the investor's functional currency and (3) any cross-currency interest rate swap designated as the hedging instrument is eligible for designation

pursuant to ASC 815-20-25-67 (refer to section 7.11.4.1 for discussion of the eligibility criteria), the change in the fair value of the derivative other than that attributable to changes in the spot rate is excluded from the assessment of hedge effectiveness, and the hedge is considered to be perfectly effective.

Amounts excluded from the assessment of hedge effectiveness are reported in earnings using an amortization approach (unless the entity makes an accounting policy election to recognize the changes in the fair value of the excluded components currently in earnings).

Under the amortization approach, the initial value of the excluded components is recognized in earnings using a systematic and rational method over the life of the hedging instrument. Any difference between the change in the fair value of the excluded components during the period and the amount amortized into earnings during the period under the systematic and rational method is deferred in CTA. If the hedging relationship is discontinued, any amounts remaining in CTA that relate to the excluded components will remain in CTA until the hedged net investment is sold or liquidated in accordance with ASC 830.

Unlike for fair value and cash flow hedging relationships, ASC 815 does not require amounts excluded from the assessment of a net investment hedge under the spot method to be presented in the same income statement line as the earnings effect of the hedged item. Instead, ASC 815 is silent on the income statement line where excluded components in net investment hedges should be presented.

The FASB believes requiring excluded components in a net investment hedge to be presented in the same income statement line as the earnings effect of the hedged item could result in the presentation in a line item called “gain or loss on the sale of subsidiary,” when a sale did not occur in the current period and may not occur within a reasonable time period, if at all. The Board did not believe that mandating this presentation would improve financial reporting.

As discussed in section 4.8.3.5, while the guidance in ASU 2017-12 that allows cross-currency basis spreads to be excluded from the assessment of hedge effectiveness only applies to fair value and cash flow hedges, a cross-currency spread represents an element of the total amount excluded from the assessment of hedge effectiveness when applying the spot method to a net investment hedging relationship where the hedging instrument is an eligible receive-fixed-rate/pay-fixed-rate or a receive-floating-rate/pay-floating-rate cross-currency swap.

How we see it

Because ASU 2017-12 permits entities to recognize excluded components in earnings on an amortized basis, an entity may consider changing its historical assessment methodology to the spot method by dedesignating and redesignating all existing net investment hedging relationships previously assessed under the forward method (assuming they meet the requirements in ASC 815-35-35-4, as discussed above) or by entering into new net investment hedges.

An entity that seeks to redesignate an existing hedging relationship that had been assessed under the forward method should be aware that the amounts related to forward points and cross-currency basis spread previously recorded in CTA will not unwind over the life of the new hedging relationship assessed under the spot method. Instead, we believe these amounts, which relate to the discontinued hedging relationship, would remain in CTA until the foreign subsidiary is sold. This treatment is consistent with the discontinuance of any net investment hedge under the forward method.

In addition, an entity that uses the existing cross-currency swap as the hedging instrument in the redesignated hedging relationship assessed under the spot method would need to appropriately account for the off-market element of the swap. We believe this off-market element represents part of the excluded component of the swap, not a source of “ineffectiveness.” As a result, at the end of the redesignated hedging relationship, the amount recorded in CTA related to this new relationship would only be the effect of the change in the spot rate on the swap’s notional amount from the redesignation date.

This is consistent with the FASB staff's view expressed in response to a technical inquiry. While the staff did not specify an amortization approach to be used when the hedging derivative in a net investment hedge is off market, it stated that generally no off-market element should remain in CTA at the completion of the hedging relationship.

For effective net investment hedges using derivatives and the spot method, the entire change in the fair value of a hedging instrument included in the assessment of hedge effectiveness is recorded in the CTA section of OCI in the same manner as a translation adjustment. This amount is determined by looking to changes in spot exchange rates (i.e., the spot-to-spot change in value reported in the CTA section of OCI is not discounted). The change in spot amount remains in the CTA section of OCI until the hedged item affects earnings (i.e., when the CTA associated with the hedged net investment is recognized in earnings as part of the gain or loss on the sale or liquidation of the investment or subsidiary). At that time, the amount in CTA is reclassified to the same income statement line where the earnings effect of the hedged item is presented (e.g., gain or loss on sale of subsidiary). See section 4.4.3 in our FRD, *Foreign currency matters*, for additional discussion on the disposition of CTA.

When the hedging instrument is a qualifying receive-floating-rate, pay-floating-rate or receive-fixed-rate, pay-fixed-rate cross-currency interest rate swap, the interest accrual/periodic cash settlement components of the swap are reported directly in earnings. If the cross-currency swap has a non-zero fair value at hedge inception (i.e., includes an off-market element as discussed above), this amount will also be recognized in earnings over the life of the hedging relationship.

Similar to the forward rate method discussed above, the hedging relationship would not be perfectly effective if any of the following conditions are present:

- ▶ The notional amount of the derivative does not match the portion of the net investment designated as being hedged.
- ▶ The derivative's underlying exchange rate is not the exchange rate between the functional currency of the hedged net investment and the investor's functional currency.
- ▶ The hedging derivative is a permitted cross-currency interest rate swap; however, both legs were not based on comparable interest rate curves.

In these situations, a hypothetical derivative that does not incorporate those differences must be compared with the change in fair value of the actual derivative to assess the effectiveness of the hedging relationship. The hypothetical derivative must also have a maturity date and repricing and payment frequencies for any interim payments that match the maturity date and repricing and payment frequencies for any interim payments of the actual derivative designated as the hedging instrument in the net investment hedge.

7.11.5.3

Nonderivatives used as hedging instruments

If the notional amount of the nonderivative instrument matches the portion of the net investment designated as being hedged and the nonderivative instrument is denominated in the functional currency of the hedged net investment, the hedging relationship would be perfectly effective under an assessment method based on the change in spot exchange rates. Therefore, a quantitative effectiveness assessment would not be required.

When the hedging instrument is not a derivative, the transaction gain or loss determined under ASC 830²⁸⁶ by reference to the change in the spot exchange rate between the transaction currency of the debt and the functional currency of the investor (after tax effects, if appropriate) is reported in the

²⁸⁶ Unlike derivatives accounted for under ASC 815, which are *always* measured at fair value, nonderivatives used as the hedging instrument in a foreign exchange hedge continue to be remeasured at spot exchange rates in accordance with ASC 830, rather than carried at fair value.

same manner as the translation adjustment associated with the hedged net investment. That is, the transaction gain or loss would be reported in the CTA section of OCI and subsequently reclassified to earnings only when the hedged item affects earnings (i.e., when the CTA associated with the hedged net investment is recognized in earnings as part of the gain or loss on the sale or liquidation of the investment or subsidiary). At that time, the amount in CTA is reclassified to the same income statement line where the earnings effect of the hedged item is presented (e.g., gain or loss on sale of subsidiary). See section 4.4.3 in our FRD, *Foreign currency matters*, for additional discussion on the disposition of CTA.

The hedging relationship would not be perfectly effective if either of the following is true:

- ▶ The notional amount of the nonderivative instrument does not match the portion of the net investment designated as being hedged.
- ▶ The nonderivative instrument is denominated in a currency other than the functional currency of the hedged net investment.

In these cases, effectiveness is assessed by comparing the transaction gain or loss based on changes in the spot rate (after tax effects, if appropriate) of that nonderivative instrument with the transaction gain or loss based on changes in the spot rate (after tax effects, if appropriate) that would result from the appropriate hypothetical nonderivative instrument that does not incorporate those differences. If the hedging relationship is highly effective, the entire transaction gain or loss on the nonderivative instrument as determined under ASC 830 would be recorded in CTA.

7.11.5.4

Changing nature of the net investment balance

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Net Investment Hedges

Subsequent Measurement

Redesignation

815-35-35-27

If an entity documents that the effectiveness of its hedge of the net investment in a foreign operation will be assessed based on the beginning balance of its net investment and the entity's net investment changes during the year, the entity shall consider the need to redesignate the hedging relationship (to indicate what the hedging instrument is and what numerical portion of the current net investment is the hedged portion) whenever financial statements or earnings are reported, and at least every three months. An entity is not required to redesignate the hedging relationship more frequently even when a significant transaction (for example, a dividend) occurs during the interim period. Example 1 (see paragraph 815-35-55-1) illustrates the application of this guidance.

The foreign currency exposure changes on a daily basis as a subsidiary conducts its operations. For example, if an entity decides to designate the opening balance of the net investment as the hedged item, the change in value of the designated derivative will not be an effective hedge of the adjustment to CTA during the period. The apparent mismatch arises because any earnings during the period will not have been hedged but will affect OCI. ASC 815 still prohibits hedging the foreign currency risk of a subsidiary's net income because net income is not considered to be a transaction that has foreign exchange risk that can be the designated item in an accounting hedge.

ASC 815-35-35-27 provides guidance for assessing hedge effectiveness in a hedge of a net foreign investment by indicating that if an entity documents that hedge effectiveness will be assessed based on the beginning balance of its net investment and the entity's net investment changes during the year, the entity should consider the need to redesignate the hedging relationship (to indicate what the hedging instrument is and which numerical portion of the current net investment is the hedged portion) whenever financial

statements or earnings are reported, and at least every three months. However, because the assessment is based on the beginning balance of the entity's net investment, the fact that the net investment changes during the year would not affect the effectiveness of the hedge during the current period.

How we see it

We believe the need to redesignate a derivative will be particularly acute when the net investment balance decreases during a period (typically as a result of net losses or the payment of dividends in excess of current earnings). In situations where the net investment balance does not decrease or the amount of the net investment that is hedged remains, an entity's designation of a monetary amount of the net investment as the hedged item will continue to qualify as a hedge without redesignation.

To illustrate the method of redesignating a derivative, assume that a foreign currency derivative contract is designated as the hedging instrument and it has a notional amount (e.g., 100,000 foreign currency units – or FCUs) that matches the balance of the net investment in the foreign operation at the inception of the hedge. As the net investment changes, the entity would periodically assess the original hedging relationship and decide whether it needs to remove (i.e., dedesignate) that original relationship and designate a new hedging relationship for the following assessment period. The following presents one method of such redesignation in those circumstances in which the entity chooses not to obtain a new derivative:

- ▶ If the net investment had increased (e.g., to 120,000 FCUs), the entire derivative contract would be designated prospectively as hedging only a portion of the beginning balance of the net investment in that foreign operation. The hedged portion would be the ratio of the net investment at the inception of the hedge to the net investment at the beginning of the new assessment period (e.g., five-sixths of the 120,000 FCUs).
- ▶ If the net investment had decreased (e.g., to 90,000 FCUs), only a proportion of the derivative contract would be designated prospectively as hedging the entire beginning balance of the net investment in that foreign operation. The proportion of the forward contract designated prospectively as the hedging instrument would be the amount representing the ratio of the net investment at the beginning of the new assessment period to the notional amount of the derivative (e.g., nine-tenths of the forward contract). The proportion of the forward contract not designated prospectively as the hedging instrument in the net investment hedge could be designated as a hedging instrument in a different hedging relationship or simply reported at fair value with its gain or loss recognized currently in earnings.

An entity is not required to redesignate the hedging relationship more frequently than quarterly even when a significant transaction (e.g., a dividend) occurs during the interim period.

How we see it

There has been some confusion as to whether ASC 815 permits an entity to designate anything other than the beginning balance of a net investment (or portion thereof) as the hedged item. For example, can the average balance outstanding for a defined period, or the ending balance (or portion thereof) be designated as the hedged item? We believe that ASC 815 permits only the beginning balance (or a portion thereof) to be the hedged item because any other designation involves some degree of forecast as to what the future average or ending balance might be. In turn, this would amount to a hedge of future earnings and/or dividend projection of the foreign operation that is clearly prohibited elsewhere in the guidance.

7.11.6 After-tax hedging of foreign currency risk

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Hedging-General

Recognition

Formal Designation and Documentation at Hedge Inception

815-20-25-3

Concurrent designation and documentation of a hedge is critical; without it, an entity could retroactively identify a hedged item, a hedged **transaction**, or a method of assessing effectiveness to achieve a desired accounting result. To qualify for hedge accounting, there shall be, at inception of the hedge, formal documentation of all of the following:

- b. Documentation requirement applicable to fair value hedges, cash flow hedges, and net investment hedges:
 2. The entity's risk management objective and strategy for undertaking the hedge, including identification of all of the following:
 - vi. If the entity is hedging foreign currency risk on an after-tax basis, that the assessment of effectiveness will be on an after-tax basis (rather than on a pretax basis).

Derivatives and Hedging – Net Investment Hedges

Subsequent Measurement

Overall

815-35-35-3

If an entity has designated and documented that it will assess effectiveness and measure hedge results on an after-tax basis as permitted by paragraph 815-20-25-3(b)(2)(vi), the portion of the gain or loss on the hedging instrument that exceeded the loss or gain on the hedged item shall be included as an offset to the related tax effects in the period in which those tax effects are recognized.

ASC 815 permits hedging of foreign exchange risk on an after-tax basis, including hedging the foreign currency risk of a net investment in a foreign operation. In practice, this approach is typically applied when a net investment in a foreign subsidiary qualifies for the "indefinite reinvestment exception" under ASC 740. In this situation, the effectiveness of the hedge is considered on an after-tax basis so as to compensate for the nontaxable nature of the translation gain or loss that results from the net investment qualifying for the indefinite reinvestment exception.

For example, on 1 January 20X1, a US parent wants to designate a forward contract as a hedge of the foreign currency exposure relating to its FC120,000 (\$60,000) net investment in ABC. Assume that the enacted tax rate is 25%, that gains and losses on forward contracts are taxable or deductible when realized and that there are no deferred taxes to be provided on the translation adjustment from the net investment because the parent qualifies for the indefinite reinvestment exception. ASC 815 allows the US parent to enter into a forward contract for FC160,000 (\$80,000) in order for the after-tax effect of the forward contract ($\$80,000 \times (1 - 25\%)$) to offset the translation gain or loss on the net investment of \$60,000. Current and deferred income taxes relating to the forward contract are charged or credited directly to a separate component of stockholders' equity as an offset to the total gain or loss from the forward contract.

Entities that hedge net investments in foreign operations on an after-tax basis should be aware that changes in tax rates can affect hedging relationships. For example, the change in tax rates stemming from the Tax Cuts and Jobs Act resulted in the need for such entities to determine whether previously designated net investment hedges remained highly effective (given that the notional amount of the hedging derivative was determined based on prior tax rates).

For further information on the indefinite reinvestment exception, see our *FRD, Income Taxes*.

7.12 Examples of net investment hedges

The following examples illustrate the accounting for net investment hedges:

- ▶ Example 9: Accounting for a net investment (no hedge accounting)
- ▶ Example 10: Accounting for a net investment (with hedge accounting)
- ▶ Example 11: Accounting for a hedge of a net investment using a fixed-rate-for-fixed-rate cross-currency interest rate swap and assessing effectiveness using the spot method

Example 9: Accounting for a net investment (no hedge accounting)

Roxy Accessories has a Canadian subsidiary, Ludwig Industries, which uses the Canadian dollar as its functional currency. Roxy acquired its 100% interest in Ludwig on 1 July 20X1, for \$2,000,000 when the exchange rate was CAD1.50 per US dollar. Below are the balance sheets of Roxy and Ludwig as of 1 July 20X1 and 31 December 20X1.

| Balance sheet information | | | | |
|---|---|-------------------|---------------------------|-------------------|
| Balance sheets | July 1, 20X1 (date of acquisition) | | December 31, 20X1* | |
| | Roxy \$ | Ludwig CAD | Roxy \$ | Ludwig CAD |
| Assets | 10,000,000 | 6,000,000 | 14,000,000 | 10,000,000 |
| Investment in Ludwig | 2,000,000 | – | 2,000,000 | – |
| Intercompany Account – Ludwig | – | – | 1,000,000 | – |
| Total | 12,000,000 | 6,000,000 | 17,000,000 | 10,000,000 |
| Liabilities | 8,000,000 | 3,000,000 | 8,000,000 | 3,500,000 |
| Intercompany Account – Roxy | – | – | – | 1,750,000 |
| Equity | 4,000,000 | 3,000,000 | 9,000,000 | 4,750,000 |
| Total | 12,000,000 | 6,000,000 | 17,000,000 | 10,000,000 |
| Net income for the six months ending 31 December 20X1 | | | 5,000,000 | 1,750,000 |

* Prior to currency-related closing journal entries and equity accounting by Roxy.

The exchange rates applicable are as follows:

| Key assumptions | CAD per \$ |
|---|-------------------|
| Spot rate at 7/1/20X1 | 1.50 |
| 12-month forward rate at 7/1/20X1 | 1.54 |
| Average spot rate from 7/1/20X1 to 12/31/20X1 | 1.75 |
| Spot rate at 12/31/20X1 | 2.00 |
| Six-month forward rate at 12/31/20X1 | 2.02 |

Net investment – initial acquisition

The spot rate at the date of the acquisition should be used to remeasure Ludwig's accounts to the reporting currency. The balance sheets below reflect the initial entries:

| Summary balance sheet information | | | | | | |
|--|-------------------|----------------------|------------------|-------------------|--------------------------------------|---------------------------------------|
| Balance sheets July 1, 20X1 | Ludwig CAD | Spot rate | Ludwig \$ | Roxy \$ | Consolidating adjustments | Consolidated balance sheet |
| Assets | 6,000,000 | 1.50 | 4,000,000 | 10,000,000 | – | 14,000,000 |
| Investment in Ludwig | – | – | – | 2,000,000 | (2,000,000) | – |
| Total | 6,000,000 | – | 4,000,000 | 12,000,000 | (2,000,000) | 14,000,000 |
| Liabilities | 3,000,000 | 1.50 | 2,000,000 | 8,000,000 | – | 10,000,000 |
| Equity | 3,000,000 | 1.50 | 2,000,000 | 4,000,000 | (2,000,000) | 4,000,000 |
| Total | 6,000,000 | – | 4,000,000 | 12,000,000 | (2,000,000) | 14,000,000 |

Net investment – translation as of 31 December 20X1

If Roxy decided not to hedge any of the foreign exchange rate exposures, the consolidated balance sheet as of 31 December 20X1 would be as follows (note that the intercompany account between Ludwig and Roxy is denominated in US dollars):

| Roxy balance sheet assuming no hedging | | | | | | |
|---|------------------------|----------------------|------------------|-------------------|--------------------------------------|---------------------------------------|
| Balance sheets December 31, 20X1 | Ludwig CAD* | Spot rate | Ludwig \$ | Roxy \$ | Consolidating adjustments | Consolidated balance sheet |
| Assets | 10,000,000 | 2.00 | 5,000,000 | 14,000,000 | – | 19,000,000 |
| Investment in Ludwig | – | – | – | 2,000,000 | (2,000,000) | – |
| Intercompany Account – Ludwig | – | – | – | 1,000,000 | (1,000,000) | – |
| Total | 10,000,000 | – | 5,000,000 | 17,000,000 | (3,000,000) | 19,000,000 |
| Liabilities | 3,500,000 | 2.00 | 1,750,000 | 8,000,000 | – | 9,750,000 |
| Intercompany Account | 2,000,000 | 2.00 | 1,000,000 | – | (1,000,000) | – |
| Equity | 3,000,000 | 1.50 | 2,000,000 | 4,000,000 | (2,000,000) | 4,000,000 |
| Separate Component of Equity – Translation Loss | – | – | (607,143) | – | – | (607,143) |
| Earnings – Current Year | 1,750,000 | 1.75 | 1,000,000 | 5,000,000 | – | 6,000,000 |
| Foreign Currency Loss | (250,000) | 1.75 | (142,857) | – | – | (142,857) |
| Total | 10,000,000 | – | 5,000,000 | 17,000,000 | (3,000,000) | 19,000,000 |

* After currency-related closing entries.

Roxy's foreign currency exposures relating to the above balance sheet are as follows:

| | |
|--|---------------|
| Initial net investment | CAD 3,000,000 |
| Net income for the six months (before currency related closing entries) | CAD 1,750,000 |
| Intercompany account ²⁸⁷ | \$ 1,000,000 |

²⁸⁷ The intercompany exposure is in Ludwig's accounts but will influence consolidated earnings as a result of the difference in the accounting for translated and remeasured foreign currency losses and gains.

Initial net investment – At 31 December 20X1, the initial net investment should be accounted for in accordance with ASC 830. ASC 830 requires that equity accounts be translated at historical exchange rates and that assets and liabilities be translated at the current spot rates. This translation process will expose the entity to foreign currency risk between the historical and current exchange rates. Any gains or losses associated with this risk are accounted for in OCI and disclosed as a separate component of stockholders' equity.

The exchange loss associated with the initial net investment as of 31 December 20X1 will be as follows:

| | |
|---|------------------|
| Initial investment translated at spot rates as of 31 December 20X1 (CAD3,000,000/2.00) | \$ 1,500,000 |
| Initial investment translated at historical rates (CAD3,000,000/1.50) | <u>2,000,000</u> |
| Translation loss | (\$ 500,000) |

The \$500,000 translation loss should be accounted for as part of OCI and disclosed as a separate component of stockholders' equity.

Net income for the six months – The net income for Ludwig after taking into account intercompany exchange losses will be as follows:

| | |
|--|----------------------|
| Net income before exchange loss | CAD 1,750,000 |
| Exchange loss relating to intercompany account | <u>CAD (250,000)</u> |
| Net income | CAD 1,500,000 |

Because the loss is accounted for in the income statement of Ludwig, it should also be accounted for in the consolidated income statement. The net income is translated at the average spot rate whereas the related assets are converted at the year-end spot rate. This creates an inherent currency risk between the year-end and average exchange rates.

| | |
|--|----------------|
| Net assets arising from net income translated at the spot rate as of 12/31/20X1 [CAD1,500,000/2.00] | \$ 750,000 |
| Net income translated at the average exchange rate [CAD1,500,000/1.75] | <u>857,143</u> |
| Translation loss related to net income | (\$ 107,143) |

The net effect of the exchange rate fluctuation that is recognized in OCI in the consolidated financial statements is a loss of \$607,143 (\$500,000 + \$107,143).

Intercompany accounts – The intercompany balance of \$1,000,000 is denominated in US dollars and is a foreign currency exposure for Ludwig, whose functional currency is the CAD. Ludwig received funding throughout the year and has been repaying the intercompany balance as funds become available. As of 31 December 20X1, the carrying amount of the intercompany account (prior to remeasurement) was CAD1,750,000 in Ludwig's books. The CAD1,750,000 liability represents the actual cash received by Ludwig throughout the year. However, because the intercompany account is denominated in the US dollar, Ludwig still has to remeasure this balance at the end of the reporting period.

| | |
|--|----------------------|
| Carrying amount of intercompany account (prior to remeasurement) | CAD 1,750,000 |
| Remeasure intercompany account at year-end spot rates (\$1,000,000 x 2.00) | <u>CAD 2,000,000</u> |
| Exchange loss included in net earnings of Ludwig | (CAD 250,000) |
| Exchange loss translated using average spot rate as part of the consolidation process in Roxy (CAD250,000/1.75) | (\$ 142,857) |

The net effect of the exchange rate fluctuation is an exchange loss of \$142,857 in the income statement.

Example 10: Accounting for a net investment (with hedge accounting)

Assume the same fact pattern as Example 9, except that Roxy decided on 1 July 20X1 to limit its foreign currency exposure, as it relates to the initial net investment on an after-tax basis, by entering into a forward contract to sell CAD4,000,000²⁸⁸ at a forward rate of 1.54 in 12 months and to designate it as an after-tax hedge of the net investment.

Roxy's hedge documentation is as follows:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge transaction is to protect the net investment in the foreign operation, on an after-tax basis, against adverse changes in the exchange rate between the US dollar and the Canadian dollar. |
| Date of designation | 1 July 20X1 |
| Hedging instruments | Forward contract to sell CAD4,000,000 (tax rate 25%) at forward rate of CAD1.54 for each dollar on 30 June 20X2. |
| Hedged items | The forward contract is designated as a hedge of the net investment opening balance as of 1 July 20X1. |
| How hedge effectiveness will be assessed | Hedge effectiveness will be assessed based on overall changes in fair value of the forward contract (that is, based on changes in forward rates) on an after-tax basis. All changes in the fair value of the derivative instrument will be reported in the CTA section of OCI in accordance with ASC 815-35-35-17 through 35-26. Because the forward contract's notional amount and underlying match the hedged net investment, the conditions in ASC 815-35-35-17A are met and the hedge will be considered perfectly effective. The entity will confirm that these conditions are met every period. If they are no longer met, the hypothetical-derivative method will be used to measure hedge results. In addition, counterparty credit risk will be continuously monitored. |

At 1 July 20X1, the fair value of the forward contract was zero.

As of 31 December 20X1, the exchange rate was 2.00 and the six-month forward rate was 2.02. The fair value²⁸⁹ of the forward contract entered into would then be as follows:

| | |
|---|------------------|
| Six-month forward rate as of 12/31/20X1 (CAD4,000,000/2.02) | \$ 1,980,198 |
| Terms of forward contract (CAD4,000,000/1.54) | <u>2,597,403</u> |
| Difference between forward contract and forward rates | \$ 617,205 |
| Fair value of forward contract (\$617,205 discounted at 6% for the six-month period) | \$ 599,482 |
| Less: Tax effect (25%) | <u>(149,870)</u> |
| Fair value net of tax | \$ 449,612 |

ASC 830 requires that the hedge be accounted for in a manner similar to the accounting of the foreign currency translation loss. The journal entry will be as follows:

| | | |
|---|------------|------------|
| Forward contract (fair value) | \$ 599,482 | |
| Deferred tax liability | | \$ 149,870 |
| Other comprehensive income | | 449,612 |
| To account for the effect of the hedge of the net investment. | | |

²⁸⁸ The entity asserts indefinite reinvestment of the Canadian subsidiary's foreign earnings and elects to hedge its net investment on an after-tax basis. The hedging instrument's tax-effected notional amount of CAD4,000,000 is calculated as follows: (CAD3,000,000/1 - 25%).

²⁸⁹ In this example, the fair value of the forward is calculated by comparing the current forward rate with the contracted forward rate, and discounting the difference at a risk-free rate, assumed to be 6%. For simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative (see chapter 4 for further discussion). However, as described in chapters 4 and 6, changes in the creditworthiness of parties to a derivative will impact the fair value of the derivative and hypothetical derivative in an equal manner, resulting in no mismatch due solely to changes in the credit valuation adjustment.

To summarize the result of the exposure and the related hedge:

| | |
|---|----------------|
| The initial translation loss | \$ 500,000 |
| Gain on forward contract hedge (net of tax of 25%) | <u>449,612</u> |
| Net loss – separate component of stockholders' equity (CTA) | 50,388 |
| Translation loss on net income not hedged | <u>107,143</u> |
| Total effect on other comprehensive income | \$ 157,531 |

As can be seen from the above example, Roxy designated the entire change in the fair value of the hedging instrument, including the forward discount or premium, as an effective hedge of its net investment in Ludwig. Because the after-tax notional amount and underlying exchange rates of the forward match that of the after-tax net investment, the hedging relationship is assumed to be perfectly effective in accordance with ASC 815-35-35-17A, and no quantitative assessment is required. Nevertheless, the hedge does not completely offset the translation loss on the net investment recorded in CTA because of the difference between the spot and forward exchange rates. This will typically be the case because the derivative is required to be measured at fair value while the net investment is measured at spot exchange rates (i.e., the translation loss on the net investment is based on changes in the USD/CAD spot rate, while changes in fair value of the forward contract are determined based on changes in the USD/CAD forward rate).

Effect of the hedge on the income statement

The above hedge (after tax) offsets the \$500,000 translation loss accounted for in OCI by \$449,612.

Example 11:

Accounting for a hedge of a net investment using a fixed-rate-for-fixed-rate cross-currency interest rate swap and assessing effectiveness using the spot method (updated September 2023)

Brittany and Company (B&C) is a music production company with the US dollar as its functional currency. B&C is offered the opportunity to acquire 20% of GAF Productions, a video production company located overseas in Country A, for FC10,000,000. B&C determines that the quickest source of funding for this investment is through a private placement of debt in the US market. It will also enter into a cross-currency swap in order to convert the proceeds of the debt into the currency required for the investment. At the inception of the swap, B&C will pay the notional amount in US dollars to the counterparty and receive the notional amount in FC from the counterparty. Throughout the term of the swap, B&C will pay a fixed interest rate based on the FC and receive a fixed interest rate based on the US dollar (i.e., a "pay-fixed-rate/receive-fixed-rate," or "fixed-for-fixed" swap).

B&C elects to designate the cross-currency swap as a hedge of its net investment in the foreign operations of GAF Productions. B&C will assess the effectiveness of the hedging relationship using the spot method.

The funding for the investment is obtained on 1 January 20X1 by borrowing \$100,000 under an 8% fixed-rate note maturing 1 January 20X5. The interest rates in the US market are represented by a flat 8% yield curve and the interest rates in the Country A market are represented by a flat 2% yield curve. The foreign exchange spot rate is 100FC/\$. Thus, under the cross-currency swap, B&C pays the counterparty \$100,000 and receives FC10,000,000, which is in turn used to make the investment.

The following assumptions have been made in this example:

- ▶ The zero-coupon interest rate curves for both the US dollar and the FC are flat.
- ▶ All changes in interest rates are parallel shifts in the yield curve across all maturities.
- ▶ Foreign currency exchange rates are constant during the year and change on the last day of the year *after* the periodic cash flows have occurred under the cross-currency swap.

- ▶ The final swap periodic payment occurs on 31 December 20X4, but the notional amounts are not exchanged until 1 January 20X5.

These artificial but simplifying assumptions are necessary to more clearly illustrate the concepts in the example. In addition, there are periods in the example in which foreign currency exchange spot rates are held constant but interest rates change (and vice versa) for illustrative purposes. In actuality, these rates are much more interdependent. Also, the example ignores the various aspects of accounting for the investment under the equity method, such as recording and translating B&C's share of net income. This is also to focus on the underlying hedge accounting. A key consideration would be to determine that at all times the net investment was at least equal to the notional amount of the swap designated as the hedge. If the net investment fell below this amount, perhaps as a result of losses or a liquidating dividend, the hedge would have to be dedesignated and redesignated anew.

The following table summarizes the changes in value of the cross-currency swap in this example. A separate section following the example provides valuation details and additional insight into the workings of the cross-currency swaps. The information in the following table is derived from those calculations and used to support the journal entries in the example.

| Key assumptions | | | | | | |
|-----------------|-------------------------------------|--|------|--|---|--|
| Date | Foreign currency spot exchange rate | Zero-coupon forward interest rates (for remaining periods) (flat curve assumption) | | Total fair value ²⁹⁰ of cross-currency swap | Total change in fair value of cross-currency swap | Portion of change in fair value due to spot rate change on notional amount |
| | | USD | FC | | | |
| 01/01/X1 | 100 FC/\$ | 8.0% | 2.0% | \$ - | N/A | N/A |
| 12/31/X1 | 95 FC/\$ | 8.0% | 2.0% | (5,263) | \$ (5,263) | \$ (5,263) |
| 12/31/X2 | 95 FC/\$ | 8.0% | 1.5% | (6,293) | (1,030) | - |
| 12/31/X3 | 90 FC/\$ | 8.0% | 1.0% | (12,211) | (5,918) | (5,848) |
| 12/31/X4 | 85 FC/\$ | N/A | N/A | (17,647) | (5,436) | (6,536) |
| | | | | | <u>\$ (17,647)</u> | <u>\$ (17,647)</u> |

The following hedge designation documentation is prepared:

| Formal hedge designation documentation | |
|--|--|
| Risk management objective and nature of risk being hedged | The objective of the hedge transactions is to protect the initial net investment in the GAF Productions foreign operation against adverse changes in the exchange rate between the US dollar and the FC. |
| Date of designation | 1 January 20X1 |
| Hedging instrument | Cross-currency swap (pay-fixed FC/receive-fixed US dollar). The US dollar notional amount is \$100,000 and the fixed rate 8%, and the FC notional amount is FC10,000,000 and the fixed rate 2%. Notional amounts in the respective currencies will be exchanged at the beginning and end of the swap period. The swap period is 1 January 20X1 through 1 January 20X5. |
| Hedged item | The cross-currency swap is designated as a hedge of the net investment opening balance as of 1 January 20X1. |

²⁹⁰ Changes in the fair value of the cross-currency swap other than those due to changes in the spot rate include changes in the time value (i.e., forward points), cross-currency basis spread and creditworthiness of the parties to the contract. These excluded components are recorded in earnings either by recognizing the initial value of the components over the life of the hedging instrument under a systematic and rational method (e.g., as the interest legs are accrued) or, alternatively, by immediately recognizing the changes in the fair value of these components directly into earnings. For simplicity purposes, this example does not illustrate a credit valuation adjustment applied to the derivative. See chapter 4 for further discussion.

| | |
|---|---|
| How hedge effectiveness will be assessed | <p>Since (1) the notional amount of the hedging derivative matches the hedged portion of the net investment, (2) the derivative's underlying exchange rate is the exchange rate between the functional currency of the hedged net investment and B&C's functional currency, and (3) the hedging derivative is a permitted cross-currency interest rate swap, the changes in the fair value of the derivative attributable to changes other than those due to fluctuations in the spot rate are excluded from the assessment of hedge effectiveness.</p> <p>As long as these critical terms match, the hedging relationship is expected to be perfectly effective. Effectiveness will be assessed prospectively and retrospectively every reporting period by confirming that these conditions continue to be met. If they are no longer met at any time during the relationship, the hypothetical-derivative method will be used to assess hedge effectiveness. Hedge effectiveness will be assessed on a pretax basis.</p> <p>As long as the hedging relationship is highly effective, the change in the fair value of the derivative attributable to the changes in the spot rate will be recorded in the CTA section of OCI. The initial value of the excluded components (all other factors affecting the fair value of the cross-currency swap) will be recognized in interest expense under a systematic and rational method in accordance with ASC 815-35-35-5A. Because the initial cost of the excluded components are embedded in the swap's coupon payments/receipts, the company has determined that the swap accrual process represents a systematic and rational method to recognize this cost in earnings.²⁹¹ That is, each interest accrual/periodic cash settlement of the qualifying receive-fixed rate, pay-fixed-rate cross-currency interest rate swap reported directly in income (as required under ASC 815-35-35-6) includes a portion of the initial value of the excluded components because the initial cost of these components was considered when determining the coupon payments on the swap. Any difference between the change in fair value of the excluded components and the amounts recognized in earnings under the swap accrual process will also be reported in the CTA section of OCI. These differences should net to zero over the life of the hedging relationship.</p> <p>Counterparty credit risk will be continuously monitored.</p> |
|---|---|

1 January 20X1

The journal entries as of 1 January 20X1 are as follows:²⁹²

| | | |
|------|------------|------------|
| Cash | \$ 100,000 | |
| Debt | | \$ 100,000 |

To record fixed-rate debt issued to fund equity method investment in foreign operation.

| | | |
|----------------------------------|------------|------------|
| Investment in foreign operations | \$ 100,000 | |
| Cash | | \$ 100,000 |

To record initial net investment in foreign operation.

No entry is required for the cross-currency swap as its fair value is zero at inception. Also, no entries are required for the exchange of notional amounts (other than memo entries) because the notional amounts were established in relation to the current spot rates (FC10,000,000 versus \$100,000 equals 100 FC/\$) and thus were of equal economic value.

²⁹¹ Refer to paragraph BC163 of the Basis for Conclusions of ASU 2017-12.

²⁹² For the purposes of this example, all journal entries are shown in US dollars. These assume subsidiary ledgers or memo entries are kept for the foreign currency amounts, which are then remeasured/translated into US dollars.

31 December 20X1

At the end of 20X1, B&C makes its scheduled interest payment on the debt.

| | | | |
|--------------------------|----|-------|----------|
| Interest expense on debt | \$ | 8,000 | |
| Cash | | | \$ 8,000 |

To record interest expense of fixed 8% on \$100,000 debt.

B&C also exchanges the fixed-rate interest payments on the cross-currency swap. B&C receives \$8,000 on the receive-fixed-USD leg ($\$100,000 \times 8\%$) and pays \$2,000 on the pay-fixed-FC leg ($FC10,000,000 \times 2\% = FC200,000$ and $FC200,000/100FC/\$ = \$2,000$). (Note that these same amounts will be exchanged at each future payment date as well, except that the USD equivalent of the FC leg amount will change as spot exchange rates change.) As required under ASC 815-35-35-6 and documented in the hedge designation documentation, the periodic swap payment is accrued through income.

| | | | |
|---|----|-------|----------|
| Cash | \$ | 6,000 | |
| Interest income ²⁹³ on cross-currency swap | | | \$ 6,000 |

To record the periodic exchange of interest on the fixed-for-fixed cross-currency swap.

Following the swap payment, foreign currency spot exchange rates also decrease from 100FC/\$ to 95FC/\$ (that is, the US dollar “weakens” in that it will buy fewer units of FC). However, interest rates do not change – they remain at 8% for the US dollar and 2% for the FC.

The net investment in GAF Productions must be translated at the new spot rate, with the adjustment reflected in the CTA section of OCI. This amount is calculated as the difference between the investment of FC10,000,000 translated at the beginning of the period spot exchange rate of 100FC/\$, or \$100,000, and the investment translated at the end of the period spot exchange rate of 95FC/\$, or \$105,263, for a difference of \$5,263.

| | | | |
|---|----|-------|----------|
| Net investment in foreign operation | \$ | 5,263 | |
| OCI – Cumulative translation adjustment | | | \$ 5,263 |

To record the translation gain on the net investment in GAF Productions.

B&C must also account for the cross-currency swap at its fair value. B&C records the following entry:

| | | | |
|---|----|-------|----------|
| OCI – Cumulative translation adjustment | \$ | 5,263 | |
| Cross-currency swap | | | \$ 5,263 |

To record the change in the fair value of swap included in the assessment of hedge effectiveness in the CTA section of OCI.

Note that since we assumed that forward interest rates in the two currencies did not change during the period, the change in fair value of the swap is the same as the change in spot rates applied to the notional amount. Accordingly, there is no mismatch between the swap and the net investment during this period.

²⁹³ Technically, this is a “contra-expense” that B&C will present in the “interest expense” line in its financial statements. Because of the fixed-for-fixed nature of the exchange of cash flows, B&C will always be in the net-receive position for all periodic exchanges under the swap.

The following table reflects the impact of the whole transaction on the period:

| Impact of transaction 20X1 | | | | | | |
|---|-------------------|-----------------------|----------------------------|--------------------|----------------|-------------------------|
| Period from 1 January through 31 December 20X1 | | | | | | |
| Transactions – debit (credit) | Cash | Net investment | Cross-currency swap | Debt | OCI-CTA | Interest expense |
| Issuance of debt and investment in foreign operations | \$ – | \$ 100,000 | \$ – | \$(100,000) | \$ – | \$ – |
| Interest expense on debt | (8,000) | – | – | – | – | 8,000 |
| Interest income on swap | 6,000 | – | – | – | – | (6,000) |
| Translation of net investment | – | 5,263 | – | – | (5,263) | – |
| Mark to market on swap | – | – | (5,263) | – | 5,263 | – |
| Totals | <u>\$ (2,000)</u> | <u>\$ 105,263</u> | <u>\$ (5,263)</u> | <u>\$(100,000)</u> | <u>\$ –</u> | <u>\$ 2,000</u> |

Note that the effective net interest rate achieved on the debt and the swap in combination was 2%. Also, note that the change in foreign currency exchange rates did not impact interest expense in 20X1 because of the assumption that exchange rates changed after the period payment was made.

31 December 20X2

At the end of 20X2, B&C makes its scheduled interest payment on the debt.

| | | |
|--------------------------|----------|----------|
| Interest expense on debt | \$ 8,000 | |
| Cash | | \$ 8,000 |

To record interest expense of fixed 8% on \$100,000 debt.

B&C also exchanges the fixed-rate interest payments on the cross-currency swap. B&C receives \$8,000 on the receive-fixed-USD leg. However, this time the amount paid under the FC leg changes when remeasured to US dollars due to the change in the exchange rates at the end of 20X1, which are still the spot rates in effect through 20X2. B&C pays \$2,105 on the pay-fixed-FC leg ($FC200,000/95FC/\$ = \$2,105$).

| | | |
|--|----------|----------|
| Cash | \$ 5,895 | |
| Interest income on cross-currency swap | | \$ 5,895 |

To record the periodic exchange of interest on the fixed-for-fixed cross-currency swap.

There are no changes in spot rates at year end 20X2. They remain constant at 95FC/\$. Thus, there is no translation adjustment to be recorded on the net investment in the foreign operation, nor is there an offsetting adjustment to OCI for the change in the fair value of the swap attributable to the changes in spot rates.

However, the interest rates in Country A have declined and are now reflected by a flat yield curve at 1.5%. While this will not affect the periodic cash flows under the fixed-for-fixed cross-currency swap, it will affect its fair value in that the fixed cash flows are discounted at the current market rates. B&C must account for the cross-currency swap at its fair value. Although there was no movement in the spot exchange rate, the entire change in fair value of the swap is recorded in the CTA section of OCI under the methodology in ASC 815-35-35-5A. B&C records the following entry:

| | | |
|---|----------|----------|
| OCI – Cumulative translation adjustment | \$ 1,030 | |
| Cross-currency swap | | \$ 1,030 |

To record the change in the fair value of the cross-currency swap in the CTA section of OCI.

| Impact of transaction 20X2 | | | | | | |
|--|-------------------|---------------------------|-------------------------------------|--------------------|-----------------|-----------------------------|
| Period from 1 January through 31 December 20X2 | | | | | | |
| Transactions – debit (credit) | Cash | Net Investment | Cross- Currency Swap | Debt | OCI-CTA | Interest Expense |
| Beginning balance | \$ (2,000) | \$ 105,263 | \$ (5,263) | \$(100,000) | \$ – | \$ – |
| Interest expense on debt | (8,000) | – | – | – | – | 8,000 |
| Interest income on swap | 5,895 | – | – | – | – | (5,895) |
| Mark to market on swap | – | – | (1,030) | – | 1,030 | – |
| Totals | <u>\$ (4,105)</u> | <u>\$ 105,263</u> | <u>\$ (6,293)</u> | <u>\$(100,000)</u> | <u>\$ 1,030</u> | <u>\$ 2,105</u> |

Note that the effective net interest rate achieved on the debt and the swap in combination in 20X2 was 2.105% (\$2,105/\$100,000), compared with 2.0% for 20X1. This difference results from the effect of the change in spot exchange rates versus the prior year's periodic swap cash flow.

31 December 20X3

At the end of 20X3, B&C makes its scheduled interest payment on the debt.

| | | | |
|--------------------------|----|-------|----------|
| Interest expense on debt | \$ | 8,000 | |
| Cash | | | \$ 8,000 |

To record interest expense of fixed 8% on \$100,000 debt.

B&C also exchanges the fixed-rate interest payments on the cross-currency swap. B&C receives \$8,000 on the receive-fixed-USD leg. The amount paid under the FC leg is the same as in 20X2 because the same spot rate was in effect through 20X3. B&C pays \$2,105 on the pay-fixed-FC leg (FC200,000/95FC/\$ = \$2,105).

| | | | |
|--|----|-------|----------|
| Cash | \$ | 5,895 | |
| Interest income on cross-currency swap | | | \$ 5,895 |

To record the periodic exchange of interest on the fixed-for-fixed cross-currency swap.

At 31 December 20X3, both the spot exchange rate and the FC interest curve change. The spot rate decreased to 90 FC/\$ and the interest rates in Country A change and are now reflected by a flat zero-coupon yield curve at 1.0%.

The net investment in GAF Productions must be translated at the new spot rate, with the adjustment reflected in the CTA section of OCI. This amount is calculated as the difference between the investment of FC10,000,000 translated at the beginning of the period spot exchange rate of 95FC/\$, or \$105,263, and the investment translated at the end of the period spot exchange rate of 90FC/\$, or \$111,111, for a difference of \$5,848.

| | | | |
|---|----|-------|----------|
| Net investment in foreign operation | \$ | 5,848 | |
| OCI – Cumulative translation adjustment | | | \$ 5,848 |

To record the translation gain on the net investment in GAF Productions.

B&C must account for the cross-currency swap at its fair value. This time, both the change in interest rates and exchange rates affected the fair value of the swap. As required under ASC 815-35-35-7 and 35-8, the change in fair value of the swap attributable to changes in the spot rate is reported in the CTA section of OCI. The spot-to-spot changes in value reported in the CTA section of OCI will not be discounted.

In accordance with ASC 815-35-35-5A, the initial cost of the cross-currency basis spread is recorded in earnings each period through the typical swap accrual process. Any difference between the change in fair value of the cross-currency basis spread and the swap accruals is reported in the CTA section of OCI.

In 20X3, the swap changed in fair value by \$(5,918) to \$(12,211). At 31 December 20X3, the change in fair value of the cross-currency swap is recorded as follows:

| | | | |
|---|----|-------|----------|
| OCI – Cumulative translation adjustment | \$ | 5,918 | |
| Cross-currency swap | | | \$ 5,918 |

To record the change in fair value of the cross-currency swap in OCI.

The following table reflects the impact of the whole transaction during the period:

| Impact of transaction 20X3 | | | | | | |
|--|-------------------|---------------------------|-------------------------------------|--------------------|-----------------|-----------------------------|
| Period from 1 January through 31 December 20X3 | | | | | | |
| Transactions – debit (credit) | Cash | Net investment | Cross- currency swap | Debt | OCI-CTA | Interest expense |
| Beginning balance | \$ (4,105) | \$ 105,263 | \$ (6,293) | \$(100,000) | \$ 1,030 | \$ – |
| Interest expense on debt | (8,000) | – | – | – | – | 8,000 |
| Interest income on swap | 5,895 | – | – | – | – | (5,895) |
| Translation of net investment | – | 5,848 | – | – | (5,848) | – |
| Mark to market on swap | – | – | (5,918) | – | 5,918 | – |
| Totals | <u>\$ (6,210)</u> | <u>\$ 111,111</u> | <u>\$ (12,211)</u> | <u>\$(100,000)</u> | <u>\$ 1,100</u> | <u>\$ 2,105</u> |

Note that the effective net interest rate achieved on the debt and the swap in combination in 20X3 was 2.105% (\$2,105/\$100,000), compared to 2.105% in 20X2 and 2.0% in 20X1.

31 December 20X4

At the end of 20X4, B&C makes its scheduled interest payment on the debt.

| | | | |
|--------------------------|----|-------|----------|
| Interest expense on debt | \$ | 8,000 | |
| Cash | | | \$ 8,000 |

To record interest expense of fixed 8% on \$100,000 debt.

B&C also exchanges the fixed-rate interest payments on the cross-currency swap. B&C receives \$8,000 on the receive-fixed-USD leg. However, the amount paid under the FC leg changes when remeasured to US dollars due to the change in the exchange rates at the end of 20X3, which are still the spot rates in effect through 20X4. B&C pays \$2,222 on the pay-fixed-FC leg ($FC200,000/90FC/\$ = \$2,222$).

| | | | |
|--|----|-------|----------|
| Cash | \$ | 5,778 | |
| Interest income on cross-currency swap | | | \$ 5,778 |

To record the periodic exchange of interest on the fixed-for-fixed cross-currency swap.

At 31 December 20X4, the spot exchange rate changes, decreasing to 85FC/\$. Note that interest rates are now irrelevant as the only remaining cash flow is the exchange of notional amounts the next day on 1 January 20X5 (under the example assumptions).

The net investment in GAF Productions must be translated at the new spot rate, with the adjustment reflected in the CTA section of OCI. This amount is calculated as the difference between the investment of FC10,000,000 translated at the beginning of the period spot exchange rate of 90FC/\$, or \$111,111, and the investment translated at the end of the period spot exchange rate of 85FC/\$, or \$117,647, for a difference of \$6,536.

| | | | |
|---|----|-------|----------|
| Net investment in foreign operation | \$ | 6,536 | |
| OCI – Cumulative translation adjustment | | | \$ 6,536 |

To record the translation gain on the net investment in GAF Productions.

B&C must account for the cross-currency swap at its fair value.

In 20X4, the swap changed in fair value by \$(5,436) to \$(17,647). At 31 December 20X4, the change in fair value of the cross-currency swap is to be recorded as follows:

| | | | |
|---|----|-------|----------|
| OCI – Cumulative translation adjustment | \$ | 5,436 | |
| Cross-currency swap | | | \$ 5,436 |

To record the change in fair value of the cross-currency swap in OCI.

The following table reflects the impact of the whole transaction during the period:

| Impact of transaction 20X4 | | | | | | |
|--|-------------------|-----------------------|----------------------------|--------------------|----------------|-------------------------|
| Period from 1 January through 31 December 20X4 | | | | | | |
| Transactions – debit (credit) | Cash | Net investment | Cross-currency swap | Debt | OCI-CTA | Interest expense |
| Beginning balance | \$ (6,210) | \$111,111 | \$(12,211) | \$(100,000) | \$ 1,100 | \$ – |
| Interest expense on debt | (8,000) | – | – | – | – | 8,000 |
| Interest income on swap | 5,778 | – | – | – | – | (5,778) |
| Translation of net investment | – | 6,536 | – | – | (6,536) | – |
| Mark to market on swap | – | – | (5,436) | – | 5,436 | – |
| Totals | <u>\$ (8,432)</u> | <u>\$117,647</u> | <u>\$(17,647)</u> | <u>\$(100,000)</u> | <u>\$ –</u> | <u>\$ 2,222</u> |

Note that the effective net interest rate achieved on the debt and the swap combined in 20X4 was 2.222% (\$2,222/\$100,000), compared with 2.105% in 20X3, 2.105% in 20X2 and 2.0% in 20X1. Further, at the conclusion of the hedging relationship, the net effect of this hedging relationship on CTA is \$0. This is because the effect of the change in the spot rate on both the net investment and the swap perfectly offset each other since the notional amount of the swap matches the hedged portion of the net investment. Additionally, since the hedging relationship was maintained through the swap's maturity, all changes in the fair value of the cross-currency swap other than changes in the spot rate have been recognized in earnings as part of the normal swap accrual process.

On 1 January 20X5, B&C exchanges notional amounts under the cross-currency swap. This settlement is similar to a forward contract in which the contracted forward rate was set at 100FC/\$. The liability reflected in the swap account of \$(17,647) equals the difference between FC10,000,000 at the contracted forward rate, or \$100,000, and at the spot exchange rate of 85FC/\$, or \$117,647. The journal entry is recorded as follows:

| | | | |
|---------------------|----|--------|-----------|
| Cross-currency swap | \$ | 17,647 | |
| Cash | | | \$ 17,647 |

To record the final exchange of notionals on the fixed-for-fixed cross-currency swap (consists of payment of FC10,000,000/.85 or \$117,647 and a receipt of \$100,000).

Effect of the hedge on the income statement

The above hedge completely offsets the translation gain on the initial foreign net investment accounted for in OCI. In addition, B&C recognized a lower effective interest rate on the debt.

How we see it

This example illustrates the accounting for a net investment hedge under the spot method for a fixed-for-fixed cross-currency swap with terms reflecting market conditions at the date of designation. That is, the swap has a fair value of zero on the designation date and a final notional exchange that is based on the current spot exchange rate on the designation date. In addition, the coupons on the swap are fixed at constant percentages.

Given the lack of clarity regarding what constitutes market coupons in a fixed-for-fixed cross-currency swap, we believe entities have some flexibility in determining the fixed-rate coupons in an at-market cross-currency swap. For example, an entity may wish to set the fixed coupon on the foreign currency leg of the swap at a particular rate. In this case, the fixed coupon on the functional currency leg of the swap would be set such that the fair value of the cross-currency swap will approximate zero at inception. When the swap has an initial fair value of zero, the coupons on the swap are fixed at constant percentages and the notional amounts of the swap are based on the spot rate at the inception of the hedge, we generally believe that the accounting presented in this example could be applied.

However, if an entity were to structure a cross-currency swap with the intention of recognizing an off-market coupon differential in earnings over the life of the hedge (e.g., if the final notional exchange is not based on the spot rate at hedge inception), we do not believe the instrument would qualify for hedge accounting as described in the example above. The FASB staff reiterated this view, noting that instruments structured in such a fashion would seem to conflict with the notion that the amortization of the initial value of the excluded components be “rational.”

In addition, we caution entities regarding the use of other structured transactions that involve applying the spot method to achieve a particular income statement outcome, because these strategies could be seen as either nonsubstantive or inconsistent with the entity’s overall risk management objectives.

Note regarding the valuation of the cross-currency interest rate swap used in Example 11

The methodology used to value the cross-currency swap in Example 11 is based on the present value, using market interest and exchange rates, of the contractual payments required of the contract. At inception, the fixed interest rates for each currency “leg” of the swap (the US dollar leg and the FC leg) were set such that the net present value of the cash flows for that leg, including the exchange of notional amounts at both the beginning and end, is equal to zero. In this example, the fixed rates on the swap were determined by looking to the zero-coupon curve for each currency and using those rates to derive a single fixed rate that produces a net present value of zero. This is done for both legs of the swap. The net present value of the foreign currency leg is converted into the reporting currency at the then-current spot exchange rate. Since both individual legs are calculated to produce a zero net present value at inception, there is nothing to convert and the total fair value of the swap at inception is also zero. (In the example, since the yield curve is flat at 8% and 2% for the US dollar and the FC, the “calculated” fixed rates at inception are also 8% and 2%.)

In the valuation for subsequent periods, the net present value of the future cash flows, including the exchange of notional amounts at the end, is again calculated. This requires discounting the fixed cash flows, based on the now-contractual fixed rates, using the then-current zero-coupon curve interest rates for cash flows occurring in the future. (Note that in actuality, zero-coupon curves would rarely actually

be flat.) This is done for both legs of the swap in their respective currencies. Next, the net present value of the foreign currency leg is converted into the reporting currency at the then-current spot exchange rate. The net amount, in the reporting currency, is the total fair value.

The following tables calculate the fair value of the swap at the various valuation dates. Additional comments are made to explain components of the value change and the interaction with the accounting when necessary. In practice, the value of cross-currency interest rate swaps is determined by financial models or obtained from market professionals and, consistent with ASC 820, would incorporate a credit valuation adjustment as part of the valuation.

| Fair value calculations for swap – 1 January 20X1 (inception date) | | | | | | |
|---|---------------|----------------|-----------------|-----------------|-------------------------------|--------------|
| Cash flow occurring on: | 1/1/X1 | 12/31X1 | 12/31/X2 | 12/31/X3 | 12/31/X4²⁹⁴ | Total |
| US Dollar Leg | | | | | | |
| Cash flow in USD | (100,000) | 8,000 | 8,000 | 8,000 | 108,000 | |
| Zero-coupon interest rate | | 8.000% | 8.000% | 8.000% | 8.000% | |
| Discount factor ²⁹⁵ | 1.0000 | 0.9259 | 0.8573 | 0.7938 | 0.7350 | |
| Net present value in USD | (100,000) | 7,407 | 6,859 | 6,351 | 79,383 | \$ - |
| FC Leg | | | | | | |
| Cash flow in FC | 10,000,000 | (200,000) | (200,000) | (200,000) | (10,200,000) | |
| Zero-coupon interest rate | | 2.000% | 2.000% | 2.000% | 2.000% | |
| Discount factor | 1.0000 | 0.9804 | 0.9612 | 0.9423 | 0.9238 | |
| Net present value in FC | 10,000,000 | (196,078) | (192,234) | (188,464) | (9,423,224) | FC - |
| Spot exchange rate | | | | | | 100 FC/\$ |
| Net present value in USD | | | | | | \$ - |
| Total swap fair value in USD | | | | | | \$ - |

| Fair value calculations for swap – 31 December 20X1 | | | | |
|--|-----------------|-----------------|-----------------|----------------|
| Cash flow occurring on: | 12/31/X2 | 12/31/X3 | 12/31/X4 | Total |
| US Dollar Leg | | | | |
| Cash flow in USD | 8,000 | 8,000 | 108,000 | |
| Zero-coupon interest rate | 8.000% | 8.000% | 8.000% | |
| Discount factor | 0.9259 | 0.8573 | 0.7938 | |
| Net present value in USD | 7,407 | 6,859 | 85,734 | \$ 100,000 |
| FC Leg | | | | |
| Cash flow in FC | (200,000) | (200,000) | (10,200,000) | |
| Zero-coupon interest rate | 2.000% | 2.000% | 2.000% | |
| Discount factor | 0.9804 | 0.9612 | 0.9423 | |
| Net present value -FC | (196,078) | (192,234) | (9,611,688) | (FC10,000,000) |
| Spot exchange rate | | | | 95 FC/\$ |
| Net present value in USD | | | | (\$105,263) |
| Total swap fair value in USD | | | | (\$5,263) |

²⁹⁴ As a simplifying assumption, the final exchange of notional amounts occurs on 1/01/X5. However, since the discount factors for 12/31/X4 and 1/01/X5 are essentially equal, the amounts are scheduled at 12/31/X4.

²⁹⁵ Calculated as $1/(1 + \text{interest rate})^{\text{number of periods}}$ or for the USD cash flow occurring 12/31/X2, this would be $1/(1.08)^2 = 0.8573$.

Note that since interest rates did not move, the entire change in the fair value of the cross-currency swap resulted from the change in the foreign currency exchange spot rates. If the spot rates had stayed at 100FC/\$, the FC leg would have had a net present value of \$(100,000) [(FC10,000,000)/100FC/\$], which would have perfectly offset the US dollar leg. Also note that another result of interest rates remaining the same is that the net present value of the FC leg is equal to the undiscounted final exchange of notional on that leg.

| Fair value calculations for swap – 31 December 20X2 | | | |
|--|-----------------|-----------------|----------------|
| Cash flow occurring on: | 12/31/X3 | 12/31/X4 | Total |
| US Dollar Leg | | | |
| Cash flow in USD | 8,000 | 108,000 | |
| Zero-coupon interest rate | 8.000% | 8.000% | |
| Discount factor | 0.9259 | 0.8573 | |
| Net present value in USD | 7,407 | 92,593 | \$ 100,000 |
| FC Leg | | | |
| Cash flow in FC | (200,000) | (10,200,000) | |
| Zero-coupon interest rate | 1.500% | 1.500% | |
| Discount factor | 0.9852 | 0.9707 | |
| Net present value -FC | (197,044) | (9,900,750) | (FC10,097,794) |
| Spot exchange rate | | | 95 FC/\$ |
| Net present value in USD | | | \$ (106,293) |
| Total swap fair value in USD | | | \$ (6,293) |

Note that exchange rates did not move, and thus the entire change in the fair value of the cross-currency swap resulted from the change in the interest rates.

| Fair value calculations for swap – 31 December 20X3 | | |
|--|-----------------|-----------------|
| Cash flow occurring on: | 12/31/X4 | Total |
| US Dollar Leg | | |
| Cash flow in USD | 108,000 | |
| Zero-coupon interest rate | 8.000% | |
| Discount factor | 0.9259 | |
| Net present value in USD | 100,000 | \$ 100,000 |
| FC Leg | | |
| Cash flow in FC | (10,200,000) | |
| Zero-coupon interest rate | 1.000% | |
| Discount factor | 0.9901 | |
| Net present value – FC | (10,099,010) | (FC 10,099,010) |
| Spot exchange rate | | 90 FC/\$ |
| Net present value in USD | | \$ (112,211) |
| Total swap fair value in USD | | \$ (12,211) |

| Fair value calculations for swap – 31 December 20X4 | |
|--|--------------------|
| Cash flow occurring on: | 1/1/X5 |
| US Dollar Leg | |
| Cash flow in USD | \$ 100,000 |
| FC Leg | |
| Cash flow in FC | (FC 10,000,000) |
| Spot exchange rate | 85 FC/\$ |
| Net present value in USD | \$ (117,647) |
| Total swap fair value in USD | <u>\$ (17,647)</u> |

In 20X4, the swap changed in fair value by \$(5,436) to \$(17,647).

Note that interest rates were irrelevant this period as the only amount valued was the exchange of principal to occur the next day.

8 Disclosures and financial statement presentation

8.1 Disclosure guidance

ASC 815-10-50 requires extensive qualitative and quantitative disclosures about derivative instruments and hedging activities. The disclosure requirements apply to all derivative instruments, including bifurcated derivative instruments,²⁹⁶ and to nonderivative instruments that are designated as hedging instruments and any related hedged items. It requires entities with derivatives (or nonderivative instruments that are designated and qualify as hedging instruments under ASC 815) to provide information about:

- ▶ How and why the entity uses derivative instruments (or such nonderivative instruments)
- ▶ How derivative instruments or nonderivative instruments designated as hedging instruments and related hedged items are accounted for under ASC 815
- ▶ How derivative instruments or such nonderivative instruments designated as hedging instruments and related hedged items affect an entity's financial position, financial performance and cash flows

To meet those objectives, ASC 815-10-50 requires the following:

- ▶ Qualitative disclosures about the entity's objectives and strategies for using derivatives by primary underlying risk exposure (e.g., interest rate, credit, foreign exchange rate) and by purpose or strategy (i.e., fair value hedges, cash flow hedges, net investment hedges and non-hedges)
- ▶ Information about the volume of derivative activity
- ▶ Quantitative tabular disclosures about statement of financial position location and gross fair value²⁹⁷ amounts of derivative instruments, the location and amount of gains and losses of derivative instruments and related hedged items reported in the statement of financial performance and AOCI, total amount of each income and expense line item presented in the statement of financial performance that includes the results of fair value or cash flow hedges and amounts of gains and losses on derivative instruments by type of contract (e.g., interest rate contracts, credit contracts or foreign exchange contracts)
- ▶ Additional disclosures related to fair value hedges, cash flow hedges and net investment hedges
- ▶ Disclosures about excluded components when the amortization approach is used
- ▶ The recognition policy for excluded components when an entity elects to recognize changes in the fair value of excluded components currently in earnings
- ▶ Additional disclosures for hedging relationships designated under the last-of-layer method²⁹⁸

²⁹⁶ A hybrid instrument that an entity measures at fair value in its entirety is not in the scope, even if that instrument would otherwise be required to be separated into a host contract and a derivative instrument by ASC 815.

²⁹⁷ As determined in accordance with ASC 820.

²⁹⁸ ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, amended ASC 815 to expand the use of what is now referred to as the portfolio layer method (previously the last-of-layer method) for fair value portfolio hedges of interest rate risk. This guidance is effective for public business entities for fiscal years beginning after 15 December 2022, and for all other entities for fiscal years beginning after 15 December 2023. However, early adoption is permitted for any entity that has adopted ASU 2017-12. Refer to section 8.13.4 for discussion of disclosure requirements related to portfolio layer method hedges.

- ▶ Disclosures about credit-risk-related contingent features and concentrations of credit risk in derivative agreements
- ▶ Disclosures by sellers of credit derivatives, including derivatives embedded in a hybrid instrument

ASC 815-10-50 provides a limited exemption for derivatives that are not designated or qualifying as hedging instruments under ASC 815, if an entity's policy is to include these instruments in its trading activities (e.g., as a part of its trading book that includes both derivative and nonderivative or cash instruments). In these cases, an entity may elect not to provide the quantitative statement of financial performance tabular disclosures noted above for those derivative instruments that are included in the quantitative disclosures related to the entity's trading activities (i.e., disclosures for its entire trading book), which are discussed in section 8.7.

In addition, ASC 825-10 requires disclosures about concentrations of credit risk for financial instruments, including derivative instruments.

Also, the SEC requires (Item 305 of Regulation S-K) quantitative disclosures about market risk outside the financial statements based on the type of market risk that exists (e.g., interest rate, foreign currency, commodity). Further, the SEC requires (Rule 4-08(n) of Regulation S-X) disclosure of a registrant's accounting policy regarding where in the statement of cash flows derivative financial instruments, and their related gains and losses, are reported. The disclosure requirements in ASC 815-10-50 are closely aligned with the SEC requirements.

The remainder of this chapter provides explanations and examples of the disclosure requirements in ASC 815.

8.2 Qualitative disclosure requirements

8.2.1 Disclosure of objectives and strategies

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

General

815-10-50-1

An entity with **derivative instruments** (or nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) shall disclose information to enable users of the financial statements to understand all of the following:

- a. How and why an entity uses derivative instruments (or such nonderivative instruments)
- b. How derivative instruments (or such nonderivative instruments) and related hedged items are accounted for under Topic 815
- c. How derivative instruments (or such nonderivative instruments) and related hedged items affect all of the following:
 1. An entity's financial position
 2. An entity's financial performance
 3. An entity's cash flows.

815-10-50-1A

An entity that holds or issues derivative instruments (or nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) shall disclose all of the following for every annual and interim reporting period for which a statement of financial position and statement of financial performance are presented:

- a. Its objectives for holding or issuing those instruments
- b. The context needed to understand those objectives
- c. Its strategies for achieving those objectives
- d. Information that would enable users of its financial statements to understand the volume of its activity in those instruments.

815-10-50-1B

For item (d) in paragraph 815-10-50-1A, an entity shall select the format and the specifics of disclosures relating to its volume of such activity that are most relevant and practicable for its individual facts and circumstances. Information about the instruments in items (a) through (c) in paragraph 815-10-50-1A shall be disclosed in the context of each instrument's primary underlying risk exposure (for example, interest rate, credit, foreign exchange rate, interest rate and foreign exchange rate, or overall price). Further, those instruments shall be distinguished between those used for risk management purposes and those used for other purposes. Derivative instruments (and nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) used for risk management purposes include those designated as hedging instruments under Subtopic 815-20 as well as those used as economic hedges and for other purposes related to the entity's risk exposures.

815-10-50-2

The instruments addressed by items (a) through (c) in paragraph 815-10-50-1A shall be distinguished between each of the following:

- a. Derivative instruments (and nonderivative instruments as noted in items (1)(i) and (1)(iii) of this paragraph) used for risk management purposes, distinguished between each of the following:
 1. Derivative instruments (and nonderivative instruments) designated as hedging instruments, distinguished between each of the following:
 - i. Derivative instruments (and nonderivative instruments) designated as fair value hedging instruments
 - ii. Derivative instruments designated as cash flow hedging instruments
 - iii. Derivative instruments (and nonderivative instruments) designated as hedging instruments for hedges of the foreign currency exposure of a net investment in a foreign operation.
 2. Derivative instruments used as economic hedges and for other purposes related to the entity's risk exposures.
- b. Derivative instruments used for other purposes.

815-10-50-3

If the simplified hedge accounting approach (see paragraphs 815-20-25-133 through 25-138) is applied in accounting for a qualifying receive-variable, pay-fixed interest rate swap, the settlement value of that swap may be used in place of **fair value** when disclosing the information required by this Section or in providing other fair value disclosures, such as those required under Topic 820 on fair value. For the purposes of complying with these disclosure requirements, amounts disclosed at settlement value will be subject to all of the same disclosure requirements as amounts disclosed at fair value. Any amounts disclosed at settlement value shall be clearly stated as such and disclosed separately from amounts disclosed at fair value.

815-10-50-4

For derivative instruments not designated as hedging instruments under Subtopic 815-20, the description shall indicate the purpose of the derivative activity.

ASC 815-10-50 requires entities to distinguish between derivatives used for risk management purposes²⁹⁹ and those used for other purposes (e.g., trading) in their discussion of their objectives and strategies for using derivative instruments for each primary underlying risk exposure (e.g., interest rate, credit, foreign exchange rate, interest rate and foreign exchange rate together, or overall price). The Board believed this approach best conveys the purpose of the use of derivatives in terms of the risks that the entity is intending to manage. Under ASC 815-10-50, the disclosures for derivative instruments designated as hedging instruments must be further segregated by accounting designation (e.g., cash flow hedges, fair value hedges, net investment hedges in a foreign operation). In addition, entities are required to discuss the purpose of derivative instruments not designated as hedging instruments, including those used as economic hedges and for other purposes related to the entity's risk exposures, and derivatives used for other purposes.

Disclosing objectives and strategies for using derivative instruments by primary underlying risk is the minimum required disclosure. Entities may determine it is appropriate to provide additional information, such as information on different types of derivative instruments used for each type of primary underlying risk (e.g., swaps, forwards, futures, options). Entities also may decide to provide information on specific exposures within each underlying risk category (e.g., exposures to specific foreign currencies).

Although derivatives may only represent a portion of an entity's overall strategy for mitigating risk, ASC 815 does not require disclosures to help users understand an entity's overall risk exposures and the strategy for managing those risks. While ASC 815 focuses solely on derivatives (or such nonderivative instruments designated as hedging instruments) and related hedged items, entities are encouraged to provide disclosures about their overall risk exposures (e.g., interest rate, foreign currency exchange, commodity price, credit, equity price) and how they manage these risks, even though they might not manage some of those exposures by using derivatives.

How we see it

ASC 815's focus on individual transactions and individual hedged items does not always lend itself to a meaningful and informed disclosure of how management thinks about risk in its organization. Most entities focus on risk from a macro perspective, but when using derivatives to manage risk, management must consider that ASC 815 generally does not permit a macro, or enterprise-wide, perspective when applying hedge accounting. Therefore, entities designate individual transactions in order to achieve the overall macro objective.

Furthermore, many entities' macro focus centers on hedging, or "fixing," a key operating margin measurement (e.g., a financial institution focuses on managing the net interest margin, while a refinery focuses on managing the "crack" spread (cost of acquiring crude versus selling price of a refined product such as gasoline)). However, ASC 815 does not permit using derivative instruments that focus solely on this "margin risk," requiring instead that entities approach formal hedging relationships from the perspective of the gross components that affect the margin. Accordingly, it may be difficult for certain preparers to easily blend a qualitative discussion of how derivative instruments are used in risk management strategies with a tabular presentation that lists derivatives one after the other.

²⁹⁹ Derivative instruments used for risk management purposes include those designated as hedging instruments under ASC 815, those used for economic hedges and those used for other purposes related to an entity's risk exposures.

ASC 815-10-55 provides qualitative and quantitative examples of the required disclosures. While certain disclosures are required to be presented in tabular format (see section 8.4 for additional discussion), entities have flexibility regarding how to present other disclosures. Because the format used in the illustrative examples is not prescribed, information can be presented differently as long as all of the required disclosures are provided.

SEC registrants should be mindful of numerous SEC staff comments and speeches that address the staff's interpretation of ASC 815's requirements and its concerns about financial statement geography for derivatives activity, many of which are discussed throughout this chapter.

The SEC staff has stated that derivatives disclosures, both in the notes to the financial statements and especially in Management's Discussion and Analysis (MD&A), should be written in "plain English" (e.g., this could include minimizing the amount of trading jargon that might be used in the qualitative disclosures). In addition, the SEC staff has encouraged registrants to focus on the clarity of disclosures about "economic hedges" (i.e., derivatives that are used for risk management but are not designated as hedges under ASC 815 either because they don't qualify for hedge accounting or because management decides not to apply hedge accounting) and to clearly distinguish them from ASC 815-qualifying "accounting hedges." For example, referring to a derivative as a "designated non-qualified ASC 815 hedge" would not only be incorrect but it could also confuse users of the financial statements.

The SEC staff has also observed registrants making derivative-related adjustments to "pro forma" or non-GAAP measures presented by registrants. The SEC staff has reminded registrants that the guidance in the SEC's non-GAAP measure rules (Regulation G for general use of non-GAAP disclosures and Regulation S-K Item 10(e) for use of non-GAAP disclosures in filings with the SEC) must be considered when making such adjustments.

8.2.2 Disclosure of volume of derivative activity

ASC 815-10-50 requires entities to disclose information that would enable users to understand the volume of their derivative activity. The guidance provides entities with the flexibility to select the format and the specifics of those disclosures that are most relevant and practicable based on individual facts and circumstances. Importantly, it does not require disclosure of notional amounts of derivatives, although a preparer could elect to provide this information to satisfy the disclosure requirement for the volume of derivative activity.

ASC 815-10-55 provides examples of how an entity could convey its level of derivative activity. These examples include (1) the total notional amount of interest rate derivatives and (2) the quantity (e.g., number of tons or bushels) of forecasted commodity purchases that are being hedged.

In practice, entities elect different approaches to disclose the volume of derivative activity depending on the nature of the derivatives. Frequently, they disclose the notional amount of derivatives to satisfy this disclosure requirement. When it comes to commodity derivatives, some entities have chosen to disclose the percentage of the total portfolio (e.g., commodity purchases) that is hedged, or to disclose net short or long positions by commodity, instead of the gross notional amounts of derivatives, in order to convey the offsetting nature of the positions.

8.3 Example qualitative disclosures

The following is an example of the qualitative disclosures an entity may make to satisfy the requirements in ASC 815-10-50:

Illustration 8-1: Qualitative disclosure example

Accounting policy for derivative instruments

ASC 815 requires entities to recognize all of their derivative instruments as either assets or liabilities in the statement of financial position at fair value. The accounting for changes in the fair value (i.e., gains or losses) of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and, further, on the type of hedging relationship. For derivative instruments that are designated and qualify as hedging instruments, an entity must designate the hedging instrument, based upon the exposure being hedged, as a fair value hedge, cash flow hedge or a hedge of a net investment in a foreign operation. For derivative instruments not designated as hedging instruments, the gain or loss is recognized in the statement of financial performance during the current period.

The Company is exposed to certain risks relating to its ongoing business operations. The primary risks managed by using derivative instruments are commodity price risk, foreign currency exchange rate risk and interest rate risk. Forward contracts on various commodities are entered into to manage the price risk associated with forecasted purchases of materials used in the Company's manufacturing process. Forward contracts on various foreign currencies are entered into to manage the foreign currency exchange rate risk on forecasted revenue denominated in foreign currencies. Other forward exchange contracts on various foreign currencies are entered into to manage the foreign currency exchange rate risk associated with certain firm commitments denominated in foreign currencies. Interest rate swaps are entered into to manage interest rate risk associated with the Company's fixed- and floating-rate borrowings. Forward foreign exchange contracts and foreign-denominated fixed-rate debt are entered into to protect the value of the Company's investments in its foreign subsidiaries.

In accordance with ASC 815, the Company designates commodity forward contracts as cash flow hedges of forecasted purchases of commodities, certain foreign currency forward contracts as cash flow hedges of forecasted revenues, certain interest rate swaps as cash flow hedges of floating-rate loans and the remainder as fair value hedges of fixed-rate loans, foreign currency forward contracts as fair value hedges of firm commitments denominated in foreign currencies, and certain forward foreign exchange contracts and foreign-denominated fixed-rate debt as hedges of a net investment in a foreign operation.

Cash flow hedging strategy

For derivative instruments that are designated and qualify as a cash flow hedge (i.e., hedging the exposure to variability in expected future cash flows that is attributable to a particular risk), the gain or loss on the derivative instrument is reported as a component of other comprehensive income and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings and is presented in the same income statement line item as the earnings effect of the hedged item (e.g., in "interest expense" when the hedged transactions are interest cash flows associated with floating-rate debt). The initial fair value of hedge components excluded from the assessment of effectiveness is recognized in the statement of financial performance under a systematic and rational method over the life of the hedging instrument and is presented in the same income statement line item as the earnings effect of the hedged item. Any difference between the change in the fair value of the hedge components excluded from the assessment of effectiveness and the amounts recognized in earnings is recorded as a component of other comprehensive income.

The Company has entered into forward contracts on various commodities to manage the price risk associated with forecasted purchases of materials used in the Company's manufacturing process. The objective of the hedges is to reduce the variability of cash flows associated with the forecasted purchase of those commodities.

To protect against the reduction in value of forecasted foreign currency cash flows resulting from export sales over the next year, the Company has instituted a foreign currency cash flow hedging program. The Company hedges portions of its forecasted revenue denominated in foreign currencies with forward contracts. When the dollar strengthens significantly against the foreign currencies, the decline in the present value of future foreign currency revenue is offset by gains in the fair value of the forward contracts designated as hedges. Conversely, when the dollar weakens, the increase in the present value of future foreign currency cash flows is offset by losses in the fair value of the forward contracts.

The Company has entered into interest rate swap agreements to manage interest rate risk exposure. An interest rate swap agreement utilized by the Company effectively modifies the Company's exposure to interest rate risk by converting the Company's floating-rate debt to a fixed-rate basis for the next three years, thus reducing the impact of interest-rate changes on future interest expense. This agreement involves the receipt of floating-rate amounts in exchange for fixed-rate interest payments over the life of the agreement without an exchange of the underlying principal amount. In addition, approximately X% (\$X million) of the Company's outstanding short-term debt had its interest payments designated as the hedged forecasted transactions to interest rate swap agreements at 31 December 20X9.

As of 31 December 20X9, the Company had the following outstanding commodity forward contracts and foreign currency forward contracts that were entered into to hedge forecasted purchases and revenues, respectively:³⁰⁰

| Commodity | Number of bushels (000s) |
|-------------------------|-------------------------------------|
| Wheat | 200,000 |
| Corn | 250,000 |
| Oats | 150,000 |
| Foreign currency | Currency denomination (000s) |
| Euro | €636,780 |
| Japanese yen | ¥102,480,000 |
| British pound sterling | £503,069 |

As of 31 December 20X9, the total notional amount of the Company's receive-variable/pay-fixed interest rate swaps was \$X million.

Fair value hedging strategy

For derivative instruments that are designated and qualify as a fair value hedge (i.e., hedging the exposure to changes in the fair value of an asset or a liability or an identified portion thereof that is attributable to a particular risk), the gain or loss on the portion of the derivative instrument included in the assessment of hedge effectiveness and the offsetting loss or gain on the hedged item attributable to the hedged risk are recognized in the same line item associated with the hedged item in current earnings (e.g., in "cost of goods sold" when the hedged item is inventory). The initial fair value of hedge components excluded from the assessment of effectiveness is recognized in the statement of financial performance under a systematic and rational method over the life of the hedging instrument and is presented in the same income statement line item as the earnings effect of the hedged item. Any difference between the change in the fair value of the hedge components excluded from the assessment of effectiveness and the amounts recognized in earnings is recorded as a component of other comprehensive income.

³⁰⁰ The disclosure below could be tailored to any commodity (e.g., number of barrels of crude oil, gallons of heating oil, ounces of gold).

As of 31 December 20X9 and 20X8, the following amounts were recorded on the balance sheet related to cumulative basis adjustments for fair value hedges.

| Line Item in the Statement of Financial Position in Which the Hedged Item Is Included | Carrying Amount of the Hedged Assets/(Liabilities) (000s) | | Cumulative Amount of Fair Value Hedging Adjustment Included in the Carrying Amount of the Hedged Assets/(Liabilities) (000s) | |
|---|---|-------|--|-------|
| | 20X9 | 20X8 | 20X9 | 20X8 |
| Inventory | \$115 | \$124 | \$115 | \$124 |

The Company enters into forward exchange contracts to hedge certain firm commitments to acquire inventories that are denominated in foreign currencies. The purpose of the Company's foreign currency hedging activities is to protect the Company from risk that the eventual US dollar-equivalent cash flows from the sale of products to international customers will be adversely affected by changes in the exchange rates.

Hedge of net investment in foreign operations strategy

For derivative instruments that are designated and qualify as a hedge of a net investment in a foreign currency, the gain or loss on the portion of the derivative instrument included in the assessment of hedge effectiveness is reported in other comprehensive income as part of the cumulative translation adjustment to the extent the relationship is highly effective.

The Company uses foreign-denominated fixed-rate debt and forward foreign exchange contracts to protect the value of its investments in its foreign subsidiaries in the United Kingdom, Germany and Japan. The carrying value of the foreign-denominated fixed-rate debt that is designated as a hedging instrument is remeasured at each reporting date to reflect changes in the foreign currency exchange spot rate, with changes since the last remeasurement date recorded in the cumulative translation adjustment account in other comprehensive income. The Company uses the spot method of assessing hedge effectiveness when forward foreign exchange contracts are designated as hedging instruments. Accordingly, the initial fair value of hedge components excluded from the assessment of effectiveness is recognized in the statement of financial performance under a systematic and rational method over the life of the hedging instrument. Any difference between the change in the fair value of the hedge components excluded from the assessment of effectiveness and the amounts recognized in earnings is reported in other comprehensive income as part of the cumulative translation adjustment. The change in fair value of the forward foreign currency exchange contracts attributable to changes in the spot rate is recognized in the cumulative translation adjustment account included in other comprehensive income, with the related amounts due to or from counterparties included in other liabilities or other assets.

8.4

Quantitative disclosure requirements

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4E

The quantitative disclosures required by paragraphs 815-10-50-4A through 50-4CCC shall be presented in tabular format. If a proportion of a derivative instrument is designated and qualifying as a hedging instrument and a proportion is not designated and qualifying as a hedging instrument, an entity shall allocate the related amounts to the appropriate categories within the disclosure tables. Example 21 (see paragraph 815-10-55-182) illustrates the disclosures described in paragraphs 815-10-50-4A through 50-4E.

The Board believed that requiring entities to disclose the location and fair values³⁰¹ of derivative instruments, their associated gains and losses and the total amount of each income and expense line item presented in the statement of financial performance that includes the results of fair value or cash flow hedges in three separate tabular formats (one balance sheet-centric, one income statement-centric and one AOCI-centric) should provide a more complete picture and convey an overall understanding of the effect of an entity's use of derivatives on results of financial performance and cash flows during the reporting period and on the financial position at period end. Similar tabular disclosures are required for net investment hedges.

As noted in 815-10-50-4E, the quantitative disclosures required by paragraphs 815-10-50-4A through 50-4CCC must be presented in tabular format. The disclosures required by these paragraphs are discussed in sections 8.5 and 8.6.

8.5

Statement of financial position tabular disclosures

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4A

An entity that holds or issues derivative instruments (and nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) shall disclose all of the following for every annual and interim reporting period for which a statement of financial position and statement of financial performance are presented:

- a. The location and fair value amounts of derivative instruments (and such nonderivative instruments) reported in the statement of financial position
- b. The location and amount of the gains and losses on derivative instruments (and such nonderivative instruments) and related hedged items reported in any of the following:
 1. The statement of financial performance
 2. The statement of financial position (for example, gains and losses initially recognized in **other comprehensive income**).
- c. The total amount of each income and expense line item presented in the statement of financial performance in which the results of fair value or cash flow hedges are recorded.

815-10-50-4B

The disclosures required by item (a) in the preceding paragraph shall comply with all of the following:

- a. The fair value of derivative instruments (and nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) shall be presented on a gross basis, even when those instruments are subject to master netting arrangements and qualify for net presentation in the statement of financial position in accordance with Subtopic 210-20 or paragraphs 815-10-45-5 through 45-7, as applicable.
- b. Cash collateral payables and receivables associated with those instruments shall not be added to or netted against the fair value amounts.

³⁰¹ As determined in accordance with ASC 820.

- c. Fair value amounts shall be presented as separate asset and liability values segregated between each of the following:
1. Those instruments designated and qualifying as hedging instruments under Subtopic 815-20, presented separately by type of contract (for example, interest rate contracts, foreign exchange contracts, equity contracts, commodity contracts, credit contracts, other contracts, and so forth)
 2. Those instruments not designated as hedging instruments, presented separately by type of contract.
- d. The disclosure shall identify the line item(s) in the statement of financial position in which the fair value amounts for these categories of derivative instruments are included.

Amounts required to be reported for nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66 shall be the carrying value of the nonderivative hedging instrument, which includes the adjustment for the foreign currency transaction gain or loss on that instrument.

Derivatives and Hedging – Overall

Implementation Guidance and Illustrations

Example 21: Tabular Disclosures of Derivative Instruments

815-10-55-182

This Example illustrates the disclosure in tabular format of fair value amounts of derivative instruments and gains and losses on derivative instruments as required by paragraphs 815-10-50-4A through 50-4E:

Fair Values of Derivative Instruments

In millions of dollars

As of December 31

| | Derivative Assets | | | | Derivative Liabilities | | | |
|--|------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|------------------------|-----------------|
| | 2010 | | 2009 | | 2010 | | 2009 | |
| | Balance Sheet Location | Fair Value | Balance Sheet Location | Fair Value | Balance Sheet Location | Fair Value | Balance Sheet Location | Fair Value |
| Derivatives designated as hedging instruments under Subtopic 815-20 | | | | | | | | |
| Interest rate contracts | Other assets | \$XX,XXX | Other assets | \$XX,XXX | Other liabilities | \$XX,XXX | Other liabilities | \$XX,XXX |
| Foreign exchange contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Commodity contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Credit contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Other contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Total derivatives designated as hedging instruments under Subtopic 815-20 | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> |
| Derivatives not designated as hedging instruments under Subtopic 815-20 (a) | | | | | | | | |
| Interest rate contracts | Other assets | \$XX,XXX | Other assets | \$XX,XXX | Other liabilities | \$XX,XXX | Other liabilities | \$XX,XXX |
| Foreign exchange contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Equity contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Commodity contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Credit contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Other contracts | Other assets | XX,XXX | Other assets | XX,XXX | Other liabilities | XX,XXX | Other liabilities | XX,XXX |
| Total derivatives not designated as hedging instruments under Subtopic 815-20 | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> |
| Total derivatives | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> | | <u>\$XX,XXX</u> |

(a) See note XX for additional information on ABC Entity's purpose for entering into derivative instruments not designated as hedging instruments and its overall risk management strategies.

The fair value amounts are required to be disclosed as separate asset and liability values segregated between designated ASC 815 hedging instruments and those that are not designated as hedging instruments, and for each type of contract (e.g., interest rate contracts, credit contracts, commodity contracts, equity contracts, foreign exchange contracts). If a portion of the instrument is designated and a portion is not designated as a hedging instrument, an entity is required to allocate the related amounts to the appropriate categories within the disclosure table. For nonderivative instruments that are designated and qualify as hedging instruments, the amount reported is the carrying value of the nonderivative instrument, including the adjustment for the foreign currency transaction gain or loss on that instrument.

Disclosing the fair value amounts of derivative instruments on a gross basis helps users understand how various risks are being managed. Disclosing information on a net basis could provide misleading information about the types of risks being managed with derivatives.

How we see it

ASC 820 requires the fair value measurement of assets and liabilities to include the effect of nonperformance risk. It permits entities to analyze nonperformance risk of derivatives with the same counterparty on a portfolio basis, considering collateral thresholds and the full effect of master netting agreements in the calculation of the CVA for the portfolio as a whole.

Many entities struggle with assessing the effect of nonperformance risk (e.g., CVA) on individual derivatives when it has been measured for a portfolio of derivatives with the same counterparty. Practical issues have been raised regarding whether the effect of nonperformance risk should be allocated to the individual derivatives for the purposes of presenting the fair value of these derivatives on a gross basis in the tabular disclosure. It becomes a logistical issue to comply with this disclosure requirement because entities may elect net presentation of derivative assets and liabilities with the same counterparty in the statement of financial position and thus measure the effect of nonperformance risk at the portfolio level.

Some preparers question whether the CVA related to these derivative assets and liabilities can be shown as a reconciling item to the tabular disclosure. We believe, in light of guidance the SEC staff has provided for allocating the effect of nonperformance risk to individual derivative instruments for the purposes of hedge effectiveness assessment (refer to chapter 4), the CVA should be allocated to the individual derivatives for the tabular disclosure. Although the SEC staff's comments didn't relate specifically to derivative disclosures, we believe that the reporting entity should allocate the CVA (assuming it is material) to individual derivatives using the methods accepted by the SEC staff (or other methods if they are appropriate for the facts and circumstances).

Cash collateral payables and receivables associated with derivative instruments included in the disclosure table should not be included in the table because netting the payables or receivables related to cash collateral against the fair value amounts of the derivatives would make it difficult to analyze the relationship between the fair value of derivatives and the associated gains or losses reported.

How we see it

Unlike an OTC derivative where the counterparty may have a master netting agreement and elect net presentation of derivative assets and liabilities with the same counterparty pursuant to ASC 210-20, the short and long positions with a broker for exchange-traded futures contracts on commodities are often in place for different intentions. The mechanics of the exchange are such that a futures counterparty cannot terminate a future position without entering into an offsetting position with the exchange. In effect, the offsetting futures contract executed with the exchange is often intended solely to achieve termination of the first future position.

Conversely, in an OTC derivative, the counterparty can directly terminate the contract without entering into an offsetting derivative. In addition, even if an entity does not elect net presentation of derivative assets and liabilities with the same counterparty under ASC 815-10-45-6, there is an argument that only the net future position should be presented in the statement of financial position, rather than the gross balances related to the first future position and the offsetting position. Because a future counterparty must “close out” its net long or short future position by entering into an offsetting position with the exchange, it would not be meaningful to disclose the individual futures’ long and short positions on a gross basis in the tabular disclosure of location of the fair value of derivatives.

We have discussed this practice issue with the FASB staff and inquired how an entity should present the fair value of future contracts in the table. The FASB staff believes, and we agree, that ASC 815-10-50 would not require an entity to present on a gross basis fair value of future contracts that are exactly equal and offsetting and intended to achieve full termination of the first future contract. We also believe that this approach would be applicable to “partial” terminations of future contracts (e.g., offsetting future positions that perfectly mirror the original future contract except for notional amounts).

To address the disclosure of derivative instruments that contain multiple underlying risk exposures (i.e., compound derivatives) such as interest rate and credit, interest rate and foreign exchange (e.g., cross-currency interest rate swaps), and credit and foreign exchange, the disclosure requirements permit entities to create a special category for each type of compound derivative.

ASC 815-10-55 provides qualitative and quantitative examples that illustrate the application of the disclosure requirements.

8.5.1

Fair value hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4EE

An entity shall disclose in tabular format the following for items designated and qualifying as hedged items in fair value hedges:

- a. The carrying amount of hedged assets and liabilities recognized in the statement of financial position. For an available-for-sale debt security, the amount disclosed is the amortized cost basis.
- b. The cumulative amount of fair value hedging adjustments to hedged assets and liabilities included in the carrying amount of the hedged assets and liabilities recognized in the statement of financial position.
- c. The line item in the statement of financial position that includes the hedged assets and liabilities.
- d. The cumulative amount of fair value hedging adjustments remaining for any hedged assets and liabilities for which hedge accounting has been discontinued.

The disclosures required by (b) and (d) shall exclude cumulative basis adjustments related to foreign exchange risk.

The Board believes the disclosures related to the cumulative basis adjustment to the hedged item in fair value hedges will help users evaluate the amount, timing and uncertainty of prospective cash flows associated with the hedged assets or liabilities.

As such, ASC 815-10-50-4EE states that the cumulative basis adjustment disclosures are not required for fair value hedges of foreign currency risk. The FASB noted that these disclosures are intended to provide users with information about cumulative basis adjustments that will not affect the amount or timing of prospective cash flows associated with the hedged assets and liabilities. This would be the case for basis adjustments related to fair value hedges of interest rate risk but not foreign exchange risk. Further, ASC 815-10-50-4EE clarifies that when complying with the requirement to disclose the carrying amount of the hedged item in a fair value hedge, an entity should disclose the amortized cost, rather than the fair value, as the carrying amount of an available-for sale debt security.

8.5.1.1

Last-of-layer hedges before the adoption of ASU 2022-01

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4EEE

For each line item disclosed in accordance with paragraph 815-10-50-4EE(c) that includes hedging relationships designated under the last-of-layer method in accordance with paragraph 815-20-25-12A, the following information shall be disclosed separately:

- a. The amortized cost basis of the closed portfolio(s) of prepayable financial assets or the beneficial interest(s)
- b. The amount that represents the hedged item(s) (that is, the designated last of layer)
- c. The basis adjustment associated with the hedged item(s) (that is, the designated last of layer).

Example 20 (see paragraph 815-10-55-181) illustrates these disclosures.

Basis Adjustment Considerations under the Last-of-Layer Method

815-10-50-5B

For hedging relationships designated under the last-of-layer method, an entity may need to allocate the outstanding basis adjustment to meet the objectives of disclosure requirements in other Topics. For purposes of those disclosure requirements, the entity may allocate the basis adjustment on an individual asset basis or on a portfolio basis using a systematic and rational method.

The guidance also requires a number of disclosures related to hedging relationships designated under the last-of-layer method. Entities need to disclose the following additional information for each line item in the statement of financial position that includes the hedged assets:

- ▶ The amortized cost basis of the closed portfolio(s) of prepayable financial assets or the beneficial interest(s)
- ▶ The amount that represents the hedged item(s) (i.e., the designated last layer)
- ▶ The basis adjustment associated with the designated hedged item(s)

The guidance notes that entities may need to allocate the outstanding basis adjustment associated with last-of-layer hedges to meet the disclosure requirements in other Codification topics. In these instances, ASC 815-10-50-5B indicates that an entity may allocate the basis adjustment on an individual asset basis or on a portfolio basis using a systematic and rational method. Acceptable methods include allocating the basis adjustment pro rata to either the assets' unpaid principal balances or the amortized cost bases excluding the hedge basis adjustment.

8.5.1.1A Portfolio layer method hedges after the adoption of ASU 2022-01 (added September 2023)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4EEE

For each line item disclosed in accordance with paragraph 815-10-50-4EE(c) that includes hedging relationships designated under the portfolio layer method in accordance with paragraph 815-20-25-12A, the following information shall be disclosed separately:

- a. The amortized cost basis of the closed portfolio(s) of financial assets or the beneficial interest(s)
- b. The amount that represents the hedged item(s) (that is, the hedged layer or layers)
- c. The basis adjustment associated with the hedged item(s) (that is, the hedged layer or layers).

Example 20 (see paragraph 815-10-55-181) illustrates these disclosures.

The guidance also requires a number of disclosures related to hedging relationships designated under the portfolio layer method. Entities need to disclose the following additional information for each line item in the statement of financial position that includes the hedged assets:

- ▶ The amortized cost basis of the closed portfolio(s) of financial assets or the beneficial interest(s)
- ▶ The amount that represents the hedged item(s) (i.e., hedged layer or layers)
- ▶ The basis adjustment associated with the hedged item(s) (i.e., hedged layer or layers)

The above disclosures are applicable to both multiple-layer hedges and single-layer hedges.

8.5.2 Disclosures about offsetting (netting)

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Balance Sheet Offsetting

815-10-50-7

A reporting entity's accounting policy to offset or not offset in accordance with paragraph 815-10-45-6 shall be disclosed.

815-10-50-7A

A reporting entity also shall disclose the information required by paragraphs 210-20-50-1 through 50-6 for all recognized derivative instruments accounted for in accordance with Topic 815, including bifurcated embedded derivatives, which are either:

- a. Offset in accordance with either Section 210-20-45 or Section 815-10-45
- b. Subject to an enforceable master netting arrangement or similar agreement.

8.5.2.1 Scope

Quantitative and qualitative disclosures described in ASC 210-20-50-1 through 50-6 are required for recognized derivatives accounted for in accordance with ASC 815, including bifurcated embedded derivatives that are either:

- ▶ Offset on the balance sheet in accordance with the offsetting guidance in ASC 210-20-45 or ASC 815-10-45
- ▶ Subject to an enforceable master netting arrangement or similar agreement, regardless of whether they are offset in accordance with the offsetting guidance

8.5.2.2 Quantitative tabular disclosures

An entity is required to disclose information to enable users of its financial statements to evaluate the effect or potential effect of netting arrangements on its financial position, including the effect or potential effect of rights of setoff associated with the instruments that are in scope.

At a minimum, an entity should disclose at the end of the reporting period the following information separately for its assets and liabilities:

- (1) The gross amounts of those assets and liabilities
- (2) The amounts offset in accordance with the offsetting guidance to determine the net amounts presented in the balance sheet
- (3) The net amount presented in the balance sheet (i.e., (1) – (2))
- (4) The amounts subject to an enforceable master netting arrangement or similar agreement that management either chooses not to offset or that do not meet the conditions in the offsetting guidance, along with the amounts related to cash and financial instrument collateral (whether recognized or unrecognized on the balance sheet)
- (5) The net amount after deducting the amounts in (4) from the amounts in (3)

This information should be presented in tabular format unless another format is more appropriate. Importantly, the total amount disclosed in accordance with item (4) should not exceed the amount disclosed in accordance with item (3) for that instrument.

Entities should also describe the rights of setoff associated with recognized assets and recognized liabilities subject to an enforceable master netting arrangement or similar agreement (e.g., a derivative clearing agreement) disclosed in accordance with item (4). For example, for a conditional right of setoff, an entity should describe the related condition(s). For any financial collateral received or pledged, an entity should describe the terms of the collateral agreement (e.g., when the collateral is restricted).

The disclosures may be grouped by type of instrument or transaction (e.g., derivatives, repurchase and reverse agreements, securities borrowing and lending agreements). Alternatively, an entity may elect to disclose the information required by items (1) through (3) by type of financial instrument and the information required by items (3) through (5) by counterparty. Counterparties are not required to be identified by name. However, designation of the counterparties (e.g., Counterparty A, Counterparty B) should remain consistent from year to year to maintain comparability, and qualitative disclosures should be considered to give further information about the types of counterparties. When disclosure of the amounts required by items (3) through (5) is provided by counterparty, the amounts related to individually significant counterparties (relative to total counterparty amounts) should be separately disclosed, and the remaining individually insignificant counterparties should be aggregated into one line item.

8.5.2.3 Other considerations

8.5.2.3.1 Amounts offset in accordance with offsetting guidance

The amounts of recognized assets and recognized liabilities subject to setoff under the same arrangement will be disclosed in the respective tables, but the amounts included in those tables should be limited to the amount that is subject to setoff. For example, if an entity has a recognized derivative asset and a recognized derivative liability that meet the offsetting guidance but the gross amount of the derivative asset is larger than the gross amount of the derivative liability, the entity would be able to report only the amount of the derivative asset that equals the amount of the derivative liability in the derivative liability disclosure table. The asset disclosure table would include the entire amount of the derivative asset and the entire amount of the derivative liability.

8.5.2.3.2 Limits on amounts disclosed for collateral not offset in the balance sheet

To prevent an entity from inappropriately obscuring information about undercollateralized financial instruments, the amounts disclosed in accordance with item (4) should not exceed the amount disclosed in accordance with item (3).

However, if the rights to collateral can be enforced across multiple contracts with the same counterparty (e.g., through a cross-collateralization arrangement), such rights may be included in the disclosure provided in accordance with item (4). That is, the collateral value may be allocated across multiple financial instruments, but the allocated collateral amount should never exceed the value of the related instrument.

8.5.2.3.3 Disclosure of the net amounts presented on the balance sheet

Entities should reconcile the amounts required in item (3) to the individual line item amounts presented in the balance sheet. For example, if an entity determines that the aggregation or disaggregation of individual balance sheet line items provides more relevant information, it must reconcile the aggregated or disaggregated amounts disclosed in accordance with item (3) to the balance sheet.

An entity may also elect to include all recognized derivatives accounted for in accordance with ASC 815, including bifurcated embedded derivatives, repurchase agreements and reverse repurchase agreements, and securities borrowing and securities lending transactions in the scope of ASC 210-20-50-1 to reconcile to the individual line-item amount(s) presented in the balance sheet.

8.6 Statement of financial performance and accumulated other comprehensive income tabular disclosures

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4C

For qualifying fair value and **cash flow hedges**, the gains and losses disclosed pursuant to paragraph 815-10-50-4A(b) shall be presented separately for all of the following by type of contract (as discussed in paragraph 815-10-50-4D) and by income and expense line item (if applicable):

- a. Derivative instruments (and nonderivative instruments) designated and qualifying as hedging instruments in fair value hedges and related hedged items designated and qualifying in fair value hedges.
- b. The gains and losses on derivative instruments designated and qualifying in cash flow hedges included in the assessment of effectiveness that were recognized in other comprehensive income during the current period.

- bb. Amounts excluded from the assessment of effectiveness that were recognized in other comprehensive income during the period for which an amortization approach is applied in accordance with paragraph 815-20-25-83A.
- c. The gains and losses on derivative instruments designated and qualifying in cash flow hedges that are included in the assessment of effectiveness and recorded in accumulated other comprehensive income during the term of the hedging relationship and reclassified into earnings during the current period.
- d. The portion of gains and losses on derivative instruments designated and qualifying in fair value and cash flow hedges representing the amount, if any, excluded from the assessment of hedge effectiveness that is recognized in earnings. When disclosing this amount, an entity shall disclose separately amounts that are recognized in earnings through an amortization approach in accordance with paragraph 815-20-25-83A and amounts recognized through changes in fair value in earnings in accordance with paragraph 815-20-25-83B.
- f. The gains and losses reclassified into earnings as a result of the discontinuance of cash flow hedges because it is probable that the original forecasted transactions will not occur by the end of the originally specified time period or within the additional period of time discussed in paragraphs 815-30-40-4 through 40-5.
- g. The amount of net gain or loss recognized in earnings when a hedged **firm commitment** no longer qualifies as a **fair value hedge**.

815-10-50-4CC

An entity shall present separately by type of contract (as discussed in paragraph 815-10-50-4D) the gains and losses disclosed in accordance with paragraph 815-10-50-4A(b) for derivative instruments not designated or qualifying as hedging instruments under Topic 815 (see paragraph 815-10-50-4F).

815-10-50-4D

Disclosures pursuant to paragraphs 815-10-50-4C through 50-4CCC shall both:

- a. Be presented separately by type of contract, for example:
 1. Interest rate contracts
 2. Foreign exchange contracts
 3. Equity contracts
 4. Commodity contracts
 5. Credit contracts
 6. Other contracts.
- b. Identify the line item(s) in the statement of financial performance in which the gains and losses for these categories of derivative instruments (and nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) are included.

Derivatives and Hedging – Overall

Implementation Guidance and Illustrations

Example 21: Tabular Disclosures of Derivative Instruments

815-10-55-182

This Example illustrates the disclosure in tabular format of fair value amounts of derivative instruments and gains and losses on derivative instruments as required by paragraphs 815-10-50-4A through 50-4E:

The Effect of Fair Value and Cash Flow Hedge Accounting on Accumulated Other Comprehensive Income for the Years Ended December 31, 2010 and 2009

| Derivatives in Subtopic 815-20 Hedging Relationship | Amount of Gain or (Loss) Recognized in Other Comprehensive Income on Derivative | | Location of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income ^(a) | Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income | |
|--|---|----------|--|---|----------|
| | 2010 | 2009 | | 2010 | 2009 |
| Derivatives in Cash Flow Hedging Relationships | | | | | |
| Interest rate contracts | \$XX,XXX | \$XX,XXX | Interest income/(expense) | \$XX,XXX | \$XX,XXX |
| Foreign exchange contracts | XX,XXX | XX,XXX | Sales/Revenue | XX,XXX | XX,XXX |
| Commodity contracts | XX,XXX | XX,XXX | Cost of sales | XX,XXX | XX,XXX |
| Credit derivatives | XX,XXX | XX,XXX | Other income/(expense) | XX,XXX | XX,XXX |
| Other contracts | XX,XXX | XX,XXX | Other income/(expense) | XX,XXX | XX,XXX |
| Total | \$XX,XXX | \$XX,XXX | | \$XX,XXX | \$XX,XXX |
| Derivatives in Fair Value Hedging Relationships ^(b) | | | | | |
| Interest rate contracts | \$XX,XXX | \$XX,XXX | | | |
| Foreign exchange contracts | XX,XXX | XX,XXX | | | |
| Commodity contracts | XX,XXX | XX,XXX | | | |
| Credit derivatives | XX,XXX | XX,XXX | | | |
| Other contracts | XX,XXX | XX,XXX | | | |
| Total | \$XX,XXX | \$XX,XXX | | | |

(a) If gains and losses associated with a type of contract (for example, interest rate contracts) are displayed in multiple line items in the statement of financial performance, the entity is required to disclose the amount included in each line item.

(b) Represents amounts excluded from the assessment of effectiveness for which the difference between changes in fair value and periodic amortization is recorded in other comprehensive income.

The Effect of Fair Value and Cash Flow Hedge Accounting on the Statement of Financial Performance for the Years Ended December 31, 20X1 and 20X0

| | Location and Amount of Gain or (Loss) Recognized in Income on Fair Value and Cash Flow Hedging Relationships ^(a) | | | | | | | |
|---|---|--------------------|---------------------------|-------------------------|----------|--------------------|---------------------------|-------------------------|
| | 20X1 | | | | 20X0 | | | |
| | Revenue | Cost of Goods Sold | Interest Income (Expense) | Other Income (Expenses) | Revenue | Cost of Goods Sold | Interest Income (Expense) | Other Income (Expenses) |
| Total amounts of income and expense line items presented in the statement of financial performance in which the effects of fair value or cash flow hedges are recorded | \$XX,XXX | \$XX,XXX | \$XX,XXX | \$XX,XXX | \$XX,XXX | \$XX,XXX | \$XX,XXX | \$XX,XXX |
| The effects of fair value and cash flow hedging: | | | | | | | | |
| Gain or (loss) on fair value hedging relationships in Subtopic 815-20: | | | | | | | | |
| Interest rate contracts: | | | | | | | | |
| Hedged items | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Derivatives designated as hedging instruments | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Commodity contracts: | | | | | | | | |
| Hedged items | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Derivatives designated as hedging instruments | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount excluded from effectiveness testing recognized in earnings based on amortization approach | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Foreign exchange contracts: | | | | | | | | |
| Hedged items | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Derivatives designated as hedging instruments | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount excluded from effectiveness testing recognized in earnings based on amortization approach | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Credit derivatives: | | | | | | | | |
| Hedged items | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Derivatives designated as hedging instruments | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount excluded from effectiveness testing recognized in earnings based on amortization approach | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Gain or (loss) on cash flow hedging relationships in Subtopic 815-20: | | | | | | | | |
| Interest rate contracts: | | | | | | | | |
| Amount of gain or (loss) reclassified from accumulated other comprehensive income into income | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount of gain or (loss) reclassified from accumulated other comprehensive income | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |

| | | | | | | | | | |
|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| into income as a result that a forecasted transaction is no longer probable of occurring | | | | | | | | | |
| Commodity contracts: | | | | | | | | | |
| Amount of gain or (loss) reclassified from accumulated other comprehensive income into income | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount excluded from effectiveness testing recognized in earnings based on amortization approach | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Foreign exchange contracts: | | | | | | | | | |
| Amount of gain or (loss) reclassified from accumulated other comprehensive income into income | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount excluded from effectiveness testing recognized in earnings based on amortization approach | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Credit derivatives: | | | | | | | | | |
| Amount of gain or (loss) reclassified from accumulated other comprehensive income into income | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |
| Amount excluded from effectiveness testing recognized in earnings based on amortization approach | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX | XX,XXX |

(a) If gains and losses associated with a type of contract (for example, interest rate contracts) are displayed in multiple line items in the statement of financial performance, the entity is required to disclose the amount included in each line item.

ASC 815-10-50-4A(b) requires tabular disclosure of the location (i.e., line item caption) and amount of the gains and losses on derivative instruments and related hedged items reported in the statement of financial performance (or the statement of financial position for items initially recognized in OCI, when applicable).

In addition, ASC 815-10-50-4A(c) requires tabular disclosure of the total amount of each income and expense line in the income statement where the results of hedge accounting are recorded. These disclosures, coupled with disclosure of the amount of gains and losses from the hedging instruments and hedged items included in these line items, will allow users to access all relevant information in one location.

The quantitative information required by paragraphs 815-10-50-4A through 50-4CCC must be presented in a tabular format. As discussed in ASC 815-10-50-4C, gains and losses are required to be segregated in the table by type of contract (e.g., interest rate contracts, commodity contracts, foreign exchange contracts, equity contracts, credit contracts) and by income and expense line item for the following items:

- ▶ ASC 815 fair value hedging instruments (derivatives and nonderivatives) and related hedged items
- ▶ The gains and losses on ASC 815 cash flow hedging instruments included in the assessment of effectiveness that were recognized in OCI
- ▶ Amounts excluded from the assessment of hedge effectiveness that were recognized in OCI during the period when an amortization approach is applied
- ▶ The gains and losses of ASC 815 cash flow hedging instruments included in the assessment of effectiveness that were originally reported in AOCI and reclassified to earnings in the current period
- ▶ The portion of gains and losses of ASC 815 fair value and cash flow hedging instruments, if any, that is excluded from the assessment of hedge effectiveness that is recognized in earnings (with separate disclosures of amounts recognized in earnings immediately and amounts recognized in earnings using an amortization approach)
- ▶ Non-designated hedging instruments³⁰²

³⁰² As required by ASC 815-10-50-4CC, even if such instruments serve in what is commonly thought of as an “economic” hedge or a “natural” hedge, an entity is prohibited from pairing this disclosure with a disclosure of the gains or losses of the “hedged items” that were not (or could not be) designated in a formal ASC 815 hedging relationship.

- ▶ The gains and losses reclassified into earnings due to the discontinuance of cash flow hedges because it is probable that the original forecasted transaction will not occur by the end of the originally specified time period or within two months from the original specified time period
- ▶ The net gain or loss recognized in earnings when a hedged firm commitment no longer qualifies as the hedged item in a fair value hedge

The Board believes that the tabular disclosures complement the presentation of hedging instruments in the income statement because they clearly depict the effect of fair value and cash flow hedging relationships on the individual income and expense line items presented. Additionally, disclosing the related income and expense item totals in the tabular disclosure allows users to evaluate the results of hedge accounting on an entity's overall financial results.

How we see it

If an entity settles a cash flow hedge in the same reporting period as it entered into the hedge (i.e., the hedge isn't outstanding at the end of a reporting period), we believe the entity should include in the statement of financial performance table the gains and losses on derivative instruments included in the assessment of effectiveness in AOCI and should reclassify them from AOCI to earnings during the same period. That is, the tabular disclosure would be presented gross.

Additionally, with respect to the requirement to disclose gains and losses associated with the discontinuance of cash flow hedges because it is probable that the original forecasted transaction will not occur, the SEC staff believes this disclosure should be made even if the amount is immaterial because the disclosure provides useful information about an entity's patterns of discontinuing cash flow hedge accounting. ASC 815 warns that a pattern of later determining that hedged forecasted transactions are probable of not occurring would call into question both an entity's ability to accurately predict forecasted transactions and the propriety of using hedge accounting in the future for similar forecasted transactions.

Entities were initially concerned that some of the cash flow hedge disclosures would reveal proprietary information that could be used by competitors and market participants, putting the disclosing entity at a competitive disadvantage. Based on an entity's ability to designate and dedesignate derivative instruments as cash flow hedges during the reporting period, the aggregate nature of the cash flow hedging disclosures (i.e., "net gain or loss" rather than gross gains and gross losses) and the timing and frequency of those disclosures, the Board believed that the ability of traders and competitors to use the cash flow hedge disclosures to determine an entity's competitively sensitive positions is mitigated.

8.6.1

Net investment hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4CCC

For qualifying net investment hedges, an entity shall present the gains and losses disclosed in accordance with paragraph 815-10-50-4A(b) separately for all of the following by type of contract (as discussed in paragraph 815-10-50-4D):

- a. The gains and losses on derivative instruments (and nonderivative instruments) designated and qualifying in net investment hedges that were recognized in the cumulative translation adjustment section of other comprehensive income during the current period

- b. The gains and losses on derivative instruments (and nonderivative instruments) designated and qualifying in net investment hedges recorded in the cumulative translation adjustment section of accumulated other comprehensive income during the term of the hedging relationship and reclassified into earnings during the current period
- c. The portion of gains and losses on derivative instruments (and nonderivative instruments) designated and qualifying in net investment hedges representing the amount, if any, excluded from the assessment of hedge effectiveness.

Derivatives and Hedging – Overall

Implementation Guidance and Illustrations

Example 21: Tabular Disclosures of Derivative Instruments

815-10-55-182

This Example illustrates the disclosure in tabular format of fair value amounts of derivative instruments and gains and losses on derivative instruments as required by paragraphs 815-10-50-4A through 50-4E:

Effect of Net Investment Hedges on Accumulated Other Comprehensive Income and the Statement of Financial Performance

| Derivatives in Subtopic 815-20 Net Investment Hedging Relationship | Amount of Gain or (Loss) Recognized in Other Comprehensive Income on Derivative | | Location of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income ^(a) | Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income | | Location of Gain or (Loss) Recognized in Income on Derivative (Accumulated Excluded from Effectiveness Testing) ^(a) | Amount of Gain or (Loss) Recognized in Income on Derivative (Amount Excluded from Effectiveness Testing) | |
|--|---|----------|--|---|--------------------------------------|--|--|----------|
| | 2010 | 2009 | | 2010 | 2009 | | 2010 | 2009 |
| | Foreign exchange contracts | \$XX,XXX | | \$XX,XXX | Gain or (loss) on sale of subsidiary | | \$XX,XXX | \$XX,XXX |

(a) If gains and losses associated with a type of contract (for example, interest rate contracts) are displayed in multiple line items in the statement of financial performance, the entity is required to disclose the amount included in each line item.

For net investment hedging relationships, entities are required to disclose in a tabular format the gains and losses on designated derivative instruments (and nonderivative instruments) by type of contract, separated by:

- ▶ The amount recognized in CTA during the current period
- ▶ The amount reclassified from CTA into earnings during the current period
- ▶ The amount (if any) excluded from the assessment of hedge effectiveness

8.6.2

Excluded components

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4EEEE

If an entity elects to record changes in the fair value of amounts excluded from the assessment of effectiveness currently in earnings in accordance with paragraph 815-20-25-83B, the entity shall disclose this election in its summary of significant accounting policies.

As outlined above in section 8.6, the guidance contains certain requirements for disclosing the effect of excluded components on the statement of financial performance and in AOCI. These disclosures include:

- ▶ Amounts excluded from the assessment of hedge effectiveness that were recognized in OCI during the period when an amortization approach is applied
- ▶ The portion of ASC 815 fair value and cash flow hedges representing the amount, if any, excluded from the assessment of hedge effectiveness that is recognized in earnings (with separate disclosure of amounts recognized in earnings immediately and amounts recognized in earnings using an amortization approach)

How we see it

An entity that elects to recognize excluded components in earnings using an amortization approach for certain types of hedging relationships and a mark-to-market approach for other types of hedging relationships will need to separately track and disclose these amounts.

When a cross-currency basis spread is excluded from the assessment of hedge effectiveness and recognized in earnings using an amortization approach, the Board has indicated that the periodic cost of the basis spread would be captured in earnings through the typical swap accrual process. Entities do not have to separately disclose when this amount is recognized in earnings because the Board thought it could be impractical or too costly to do so.

The guidance also requires entities that make an accounting policy election to record changes in the fair value of components excluded from the effectiveness assessment of fair value and cash flow hedges in earnings to disclose this election in their disclosures about significant accounting policies.

8.6.3

Accumulated other comprehensive income

The disclosures required by ASC 220-10 may apply to entities using cash flow hedges and hedges of net investments in foreign subsidiaries. ASC 220-10 defines comprehensive income as the change in equity (net assets) of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive income comprises net income and OCI. OCI refers to revenues, expenses, gains and losses that under US GAAP are included in comprehensive income but excluded from net income (e.g., unrealized gains and losses on available-for-sale debt securities).

Under ASC 815, the entire change in the fair value of the hedging instrument included in the assessment of effectiveness for highly effective cash flow and net investment hedges is recorded in OCI and reclassified into earnings when the hedged item affects earnings (or when it becomes probable that the forecasted transaction being hedged in a cash flow hedge will not occur in the required time period) in order to match the timing of the effect of the hedged item or hedged forecasted transaction. ASC 220-10 requires entities to present changes in AOCI by component in the statement of shareholders' equity or in the notes to the financial statements. This would include the net gain or loss on derivative instruments designated in cash flow hedges. The amount in AOCI could also include components of the hedging instrument that are excluded from the assessment of hedge effectiveness when an amortization approach is applied. In these cases, an entity is required to disclose the difference between changes in the fair value of the excluded components and the initial value of the excluded components recognized in earnings under a systematic and rational method.

ASC 220-10 also requires entities to present current period reclassifications out of AOCI and other amounts of current period OCI separately for each component of OCI on the face of the financial statements or in the notes. ASC 815-30-50-2 has a similar disclosure requirement. It requires entities to roll forward beginning accumulated derivative gains and losses to ending accumulated derivative gains and losses and identify current period changes, including net amounts reclassified into earnings. ASC 220-10 requires entities to report information about reclassifications out of AOCI in one place.

Presenting reclassifications out of AOCI in accordance with the guidance may require entities that defer gains and losses on certain designated hedging instruments in AOCI to review their accounting to determine how much they have reclassified to earnings during the period. ASC 220-10 permits an entity to display components of OCI, including reclassification adjustments, either (1) net of related tax effects or (2) before related tax effects with one amount shown for the aggregate income tax expense or benefit related to the total of OCI items.

Under ASC 815, entities defer derivative gains and losses from effective cash flow hedges in AOCI and reclassify them to net income when the underlying hedged item affects earnings (e.g., when interest is accrued on hedged floating-rate debt). While the distinction between reclassified amounts and other amounts of current period OCI is usually clear, that isn't always the case for certain cash flow hedging relationships involving interest rate swaps.

Consider an interest rate swap designated as a cash flow hedge of recognized debt. An entity typically records changes in the swap's market value as adjustments to both the swap asset or liability and OCI. At the maturity of the swap, its fair value will be zero – just as it typically is at inception. If the swap remains in place until maturity, any changes in the fair value of the swap deferred in AOCI will automatically be reversed out by the maturity date. There is no need to separately amortize the amounts deferred in AOCI.

However, changes in the fair value of a swap include the accrued and realized net cash flows. How an entity accounts for the periodic accrual of those cash flows may complicate how it attributes the changes in AOCI for the period between amounts reclassified into earnings and other amounts of current period OCI. Also, an entity is required to disclose, whenever a complete set of financial statements are presented, the portion of the gains or losses reported in AOCI that it expects to reclassify into earnings within the next 12 months. The portion of the swap's fair value attributable to the present value of the near-term cash flows due over the following 12 months has to be derived from the total swap fair value in order to make this disclosure.

How we see it

Some entities may find it challenging to comply with the requirement to separately disclose the beginning and ending accumulated derivative gain or loss in AOCI, the net change associated with current period hedging transactions and the net amount of any reclassification into earnings. In particular, entities engaged in cash flow hedges with interest rate swaps that were perfectly effective (as discussed above) and those using the "all-in-one" cash flow approach for commodity purchase and sale contracts that meet the definition of a derivative may find that they need to establish a separate process to capture the information needed to make this disclosure.

For all-in-one cash flow hedges, consider the example of an entity that has long-term, fixed-price forward contracts to sell a commodity such as natural gas and accounts for the contracts as derivatives under ASC 815 because they do not qualify for the NPNS scope exception under ASC 815-10-15-22. However, the entity was able to designate the derivative contracts in a cash flow hedge of the very forecasted transactions that the contracts are intended to consummate: the sale of natural gas.

Because each forward contract fixes the price, the contracts act as hedges of sales that would otherwise occur at variable market prices. The forward contracts are designated as all-in-one cash flow hedges that, by definition, are perfectly effective. The entity may follow an approach of fair valuing the forward contracts every quarter and reporting the change in fair value in AOCI. When each hedged sale occurs, the entity records the sale at the contracted-for fixed price. At the next quarter end, the statement of financial position asset or liability is adjusted to the fair value of the remaining forward contracts with a corresponding adjustment to OCI. This entry has the effect of recording the hedged sale at the contracted amount and removing any remaining balance of the expired forward contract from AOCI.

Because the forecasted transaction has occurred, it is appropriate that the entire balance in AOCI associated with the forward contract should be eliminated. However, the reclassified amount should be included in the rollforward of activity required when the statement of comprehensive income is presented.

Furthermore, if the forecasted transaction occurs mid-quarter, it is critical that the derivative and the AOCI balance be updated for the final fair value of the derivative and the final deferred amount in AOCI – the amounts at the time the derivative contract was terminated. If the entity were to eliminate the previous quarter-end carrying value of the derivative against the previous quarter-end balance in AOCI, it would mistakenly ignore current-quarter changes in the derivative's fair value before the transaction was consummated. This “within quarter” activity must be captured in order to comply with ASC 815-30-50-2 when full financial statements are presented.

8.6.4 Hedged items not designated in qualifying ASC 815 hedging relationships

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Overall Quantitative Disclosures

815-10-50-4CC

An entity shall present separately by type of contract (as discussed in paragraph 815-10-50-4D) the gains and losses disclosed in accordance with paragraph 815-10-50-4A(b) for derivative instruments not designated or qualifying as hedging instruments under Topic 815 (see paragraph 815-10-50-4F).

All derivatives are subject to the quantitative disclosure requirements, regardless of how they are used. However, gains and losses related to hedged items not designated in qualifying ASC 815 hedging relationships are not permitted within the required statement of financial performance tabular disclosures. Entities have different views about what constitutes an “economic” hedging relationship, so the disclosure of any derivative/“hedged item” pairings that are not in formal ASC 815 hedging relationships is prohibited. This prohibition is somewhat mitigated by an entity’s ability to provide alternate disclosures for all instruments in an entity’s trading portfolio on a combined basis. This trading exemption is discussed later in section 8.7.

The Board acknowledged that permitting the disclosure would make it difficult to analyze the effect of the underlying risks being managed by derivatives when there is no requirement in those situations to designate the hedging instrument and hedged item at the start of the hedging relationship. As there are differing views as to what constitutes a hedging relationship in cases that do not qualify for hedge accounting under ASC 815, entities would have to arbitrarily identify relationships for disclosure purposes. In addition, while gains and losses on hedged items designated in an ASC 815 hedging relationship are based on changes in fair value attributable to the hedged risk only, gains and losses on financial instruments measured at fair value and used in hedging relationships not designated and qualifying under ASC 815 include all changes in fair value. Using different measurement methods to determine gains and losses reported in the same tabular disclosure would provide noncomparable information that would not help users analyze the effect of the underlying risks being managed by derivatives.

8.6.5 Other situations

Consistent with ASC 815-10-50-4D(b), if gains and losses associated with a type of contract (e.g., an interest rate contract) are displayed in multiple line items in the statement of financial performance, the entity is required to disclose the amount included in each line item. If a portion of a derivative instrument is a designated and qualifying hedge accounting instrument and a portion is not, an entity is required to allocate the related amounts for disclosure purposes. When a derivative instrument is a designated and qualifying hedge accounting instrument for a portion of the reporting period but not the entire reporting period, an entity is required to allocate the amounts for disclosure purposes.

This is also the case if the earnings effect associated with the hedged item is reported in multiple line items (e.g., an interest-bearing financial instrument denominated in a foreign currency). In these cases, the change in fair value of the hedging instrument would be split and reported in the corresponding line items (e.g., interest expense and gain/loss on foreign currency).

As discussed in ASC 815-10-50-4G, not-for-profit organizations within the scope of ASC 954 should present a similar tabular disclosure. Those organizations would refer to amounts within their performance indicator, instead of in income, and amounts outside their performance indicator, instead of in AOCI. Other not-for-profit organizations would disclose the gain or loss recognized in changes in net assets using a similar format. All not-for-profit organizations also would indicate which class or classes of net assets (i.e., net assets without donor restrictions or with donor restrictions) are affected.

How we see it

ASC 815-10-50 requires entities to disclose the location and amount of gains or losses reported in the statement of financial performance for all derivative instruments. Questions have arisen about whether this requirement should be applied differently for “physical” derivatives that frequently settle on a gross basis and for financial derivatives that commonly settle on a net basis, especially when the contracts relate to commodities.

A financial derivative that requires a net settlement usually settles upon maturity in an amount that represents the difference between the market price of the underlying asset (e.g., commodity) at the time of settlement and the fixed price that was agreed upon by the parties at the inception of the contract. A physical fixed-price derivative contract, on the other hand, requires a gross exchange of the underlying asset (e.g., a readily convertible-to-cash commodity) and cash based on the agreed-upon fixed price upon settlement. The economics (fair value changes of the derivative contract in terms of gains or losses) of a physical derivative and a financial derivative with the same terms (other than the settlement methods) are the same.

It is relatively easy for an entity to determine and disclose the gains or losses related to a financial derivative because the net settlement amount (i.e., cash that changes hands at the end of the contract) is the gain or loss from the derivative contract. However, a physical contract that requires gross settlement poses an administrative challenge in determining the final gain or loss on the contract in the period of settlement. We understand that in practice many entities do not necessarily track gains and losses on physical derivative contracts through the settlement date, even though they track unrealized gains and losses on the contracts at each balance sheet date as required by ASC 815 for proper financial statement presentation. These entities may fair value only the physical derivative contract up until the quarter end or the month end prior to the settlement. However, such entities will need to address this administrative challenge in order to remain in compliance with the disclosure requirements through the termination of the physical derivative contract.

ASC 815-10-55 provides qualitative and quantitative examples that illustrate the application of the disclosure requirements. The format of these examples is not prescribed. Entities have the flexibility to present their disclosures differently as long as all of the requirements are met.

8.7 Trading exemption

ASC 815-10-50-4F provides for a limited exemption from the regular tabular requirements illustrated above for derivatives that are not designated or qualifying as hedging instruments under ASC 815, if an entity's policy is to include these instruments in its trading activities (e.g., as a part of its trading book that includes both derivative and nonderivative or cash instruments). The Board wanted to permit an entity to tell a more complete story of all the offsetting gains and losses that might be present in a trading book (which may include both derivative and nonderivative instruments) rather than unilaterally require that only the derivative gains and losses be disclosed.

In these cases, an entity may elect not to provide the statement of financial performance tabular disclosures noted previously for those derivative instruments that are included in the quantitative disclosures related to the entity's trading activities (i.e., disclosures for its entire trading book). The alternative disclosures are required to include all of the following:

- ▶ Quantitative information about the gains and losses on its trading activities (including both derivative and nonderivative instruments) recognized in the statement of financial performance, separately by major types of items (e.g., fixed income/interest rates, foreign exchange, equity, commodity and credit)
- ▶ The line items in the statement of financial performance in which the trading activities gains and losses are included
- ▶ A description of the nature of its trading activities and related risks, and how an entity manages those risks

How we see it

This trading exemption is intended for entities with derivatives as part of trading books that also include nonderivative and/or cash instruments. We do not believe the Board intended the exemption to be applied for the entire statement of financial position or performance of a reporting entity such as a hedge fund or an investment company.

Many entities may already include the required information about their trading activities in other disclosures within the financial statements. ASC 815-10-50 requires an entity that discloses the required information on derivative instruments (or nonderivative instruments that are designated and qualify as hedging instruments) in other disclosures to provide a cross-reference from the derivative (or nonderivative instruments) note to other notes in which derivative-related information is included. Entities that elect this disclosure option are required to include a footnote in the required tables referencing the use of alternative disclosures for trading activities.

8.8 Example statement of financial performance tabular disclosures using the trading exemption

Illustration 8-2: Alternative disclosure for gains and losses on derivative instruments included in its trading activities

The following tabular disclosure example illustrates one approach for presenting the required quantitative information when an entity elects the alternative disclosure for gains and losses on derivative instruments included in its trading activities. Other approaches could be equally acceptable as long as the three requirements listed above are met.

AJF Company

The effect of trading activities on the statement of financial performance for the years ended 31 December 20X2 and 20X1 (000s)

| Type of instrument | Trading revenue | |
|----------------------------|-----------------|-----------|
| | 20X2 | 20X1 |
| Fixed income/interest rate | \$ 31,800 | \$ 17,900 |
| Foreign exchange | (3,900) | 8,300 |
| Equity | 20,600 | 25,400 |
| Commodity | 11,800 | 4,000 |
| Credit | (16,100) | (9,600) |
| Other | 2,200 | 200 |
| Total | \$ 46,400 | \$ 46,200 |

| Line item in statement of financial performance | Trading revenue | |
|---|-----------------|-----------|
| | 20X2 | 20X1 |
| Principal/proprietary transactions | \$ 30,200 | \$ 30,000 |
| Asset management income | 13,900 | 13,000 |
| Other income | 2,300 | 3,200 |
| Total | \$ 46,400 | \$ 46,200 |

The revenue related to each category includes realized and unrealized gains and losses on both derivative instruments and nonderivative instruments.

8.9 Additional disclosures specific to cash flow hedges

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Cash Flow Hedges

Disclosure

General

815-30-50-1

See Section 815-10-50 for overall guidance on disclosures. An entity's disclosures for every annual and interim reporting period for which a statement of financial position and a statement of financial performance is presented shall include all of the following for **derivative instruments** that have been designated and have qualified as cash flow hedging instruments and for the related hedged **transactions**:

- a. Subparagraph not used
- b. A description of the transactions or other events that will result in the reclassification into earnings of gains and losses that are reported in accumulated other comprehensive income

- c. The estimated net amount of the existing gains or losses that are reported in accumulated other comprehensive income at the reporting date that is expected to be reclassified into earnings within the next 12 months
- d. The maximum length of time over which the entity is hedging its exposure to the variability in future cash flows for forecasted transactions excluding those **forecasted transactions** related to the payment of variable interest on existing **financial instruments**
- e. Subparagraph superseded by Accounting Standards Update No. 2017-12.

815-30-50-2

As part of the disclosures of accumulated other comprehensive income, pursuant to paragraphs 220-10-45-14 through 45-14A, an entity shall separately disclose all of the following:

- a. The beginning and ending accumulated derivative instrument gain or loss
- b. The related net change associated with current period hedging transactions
- c. The net amount of any reclassification into earnings
- d. The difference between the change in fair value of an excluded component and the initial value of that excluded component recognized in earnings under a systematic and rational method in accordance with paragraph 815-20-25-83A.

815-30-50-3

For guidance on qualitative disclosures, see paragraph 815-10-50-5.

Disclosed Amount to Be Reclassified into Earnings

815-30-50-4

The amount required to be disclosed under paragraph 815-30-50-1(c) (the estimated net amount of the existing gains or losses that are reported in accumulated other comprehensive income at the reporting date that is expected to be reclassified into earnings within the next 12 months) could be greater than or less than the net amount reported in accumulated other comprehensive income.

As an example related to 815-30-50-1(c), if an entity at the reporting date has an outstanding cash flow hedge (i.e., interest rate swap to convert floating-rate debt to fixed), any amounts in AOCI that will offset interest payments over the next 12 months would need to be disclosed. Note that the estimated net amount of deferred gains and losses that will be recognized in earnings within the next 12 months could actually be larger than the net balance in AOCI.

For example, a single derivative could be hedging multiple forecasted transactions, only one of which is expected to occur in the next 12 months. To satisfy this disclosure requirement, an entity would have to apportion the net gain or loss reported in AOCI to each of the hedged forecasted transactions. For illustrative purposes, it is conceivable that the near-term cash flows expected from a swap could be positive, while the far-term expected cash flows could be negative, for a net fair value of near zero. As the near-term swap cash flows are hedging transactions expected to occur in the next 12 months, a net gain larger than the net balance in AOCI related to that swap would be expected to be reported in earnings within the next 12 months.

The FASB does not specify how to apportion gains and losses deferred in AOCI to satisfy this disclosure requirement or whether the disclosure should be of a discounted or an undiscounted amount. It does require that any apportionment method used be applied consistently.³⁰³

How we see it

Amounts remaining in AOCI after a hedging relationship has been discontinued, such as a gain or loss from a hedge of an anticipated fixed-rate debt issuance, are subject to this requirement. The portion scheduled to be amortized over the next 12 months as a yield adjustment of the fixed-rate debt must be disclosed.

On a related note, the SEC staff has reminded registrants of MD&A disclosure requirements in Regulation S-K that may pertain to gains or losses remaining in AOCI after a cash flow hedge has been discontinued but before the hedged transaction has occurred. Known trends or uncertainties that a registrant reasonably expects will have a material effect on its income, liquidity or capital resources must be disclosed in MD&A. Unexpected reclassifications out of AOCI to earnings because a forecasted transaction becomes probable of not occurring could have a material effect on earnings. If known trends or uncertainties could result in events or circumstances that could cause a hedged forecasted transaction to be probable of not occurring, such events or circumstances should be disclosed in MD&A if the gain or loss that would have to be reclassified from AOCI to earnings is material.

An example is a hedge of the variability in forecasted cash flows associated with a probable future debt issuance. An entity may have terminated the cash flow hedge several months prior to the expected debt issuance and commencement of the hedged cash flows. The gain or loss from this hedge must remain in AOCI until interest expense begins to accrue, at which time amortization of the balance in AOCI should begin. However, if known trends or uncertainties have placed the forecasted debt issuance in doubt, the entity should disclose the relevant facts and circumstances that will influence whether the debt issuance would eventually be deemed as probable of not occurring, and discuss the potential effect of any gain or loss, if material, that would have to be reclassified into earnings.

Note that this disclosure requirement does not distinguish between “live” hedges that will continue to cause fluctuations in AOCI and terminated hedges for which the associated balances in AOCI are frozen and are running off through the statement of financial performance as the originally designated forecasted transactions affect earnings.

For “live” hedges, the disclosure of the net amount of deferred gains and losses to be recognized in earnings within the next 12 months is truly an estimate, as the balances in AOCI at the statement of financial position date will continue to change up until the moment they are reclassified into earnings. Furthermore, the required disclosure omits an acknowledgment that an offsetting amount is expected to affect earnings at the same time as the AOCI reclassification (that is, the hedged forecasted transaction). Entities may want to consider voluntarily making such a disclosure.

For the frozen AOCI balances associated with terminated hedges, it may be possible to make an accurate estimate of the amounts of deferred gains and losses that will be recognized in earnings if the timing and amounts of the forecasted transactions are highly estimable (e.g., in the case of interest inflows or outflows from existing debt instruments). Note that in all cases, frozen AOCI balances must be immediately reclassified to earnings if the forecasted transactions to which they relate are probable of not occurring.

³⁰³ See ASCs 815-30-55-1, 50-4 through 50-6.

8.10 Disclosure requirements of hybrid instruments

ASC 815-15-50 requires that the following disclosures be made:

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Embedded Derivatives

Disclosure

Hybrid Instruments That Are Not Separated

815-15-50-1

For those hybrid financial instruments measured at **fair value** under the election and under the practicability exception in paragraph 815-15-30-1, an entity shall also disclose the information specified in paragraphs 825-10-50-28 through 50-32.

815-15-50-2

An entity shall provide information that will allow users to understand the effect of changes in the fair value of hybrid financial instruments measured at fair value under the election and under the practicability exception in paragraph 815-15-30-1 on earnings (or other performance indicators for entities that do not report earnings).

Embedded Conversion Option that Is No Longer Bifurcated

815-15-50-3

An issuer shall disclose both of the following for the period in which an embedded conversion option previously accounted for as a **derivative instrument** under this Subtopic no longer meets the separation criteria under this Subtopic:

- a. A description of the principal changes causing the embedded conversion option to no longer require bifurcation under this Subtopic
- b. The amount of the liability for the conversion option reclassified to stockholders' equity.

In each statement of financial position presented, an entity is required to report hybrid financial instruments measured at fair value under the election and under the practicability exception in ASC 815-15-30-1 in a manner that separates those reported fair values from the carrying amounts of assets and liabilities subsequently measured using another measurement attribute on the face of the statement of position. To accomplish that separate reporting, under ASC 825-10-50, an entity may either:

- ▶ Display separate line items for the fair value and other carrying amounts
- ▶ Present the aggregate of those fair value and non-fair value amounts and parenthetically disclose the amount of fair value included in the aggregate amount

The Board believes that separating items electively measured at fair value from similar items measured in other ways mitigates the effects of using multiple measurement attributes.

An entity is also required to provide information that will allow users to understand the effect of changes in the fair value of hybrid financial instruments measured at fair value under the election and under the practicability exception in ASC 815-15-30-1 on earnings (or other performance indicators for entities that do not report earnings). Importantly, this disclosure is not intended to require communication of the difference between accounting for the hybrid financial instrument on a bifurcated basis and accounting for the entire instrument at fair value, which would largely eliminate the benefit to constituents of making the fair value election. The guidance does not prescribe a specific method to make this disclosure.

8.11 Other considerations related to quantitative disclosures

ASC 815-10-50-5A notes that all of the quantitative disclosures about derivative instruments may be more useful, and less likely to be perceived out of context or misunderstood, if similar information about market risk is disclosed about other financial instruments or nonfinancial assets and liabilities to which the derivative instruments are related by activity. Accordingly, in those situations, an entity is encouraged, but not required, to present a more complete picture of its activities by disclosing that information. (For SEC registrants, a similar market risk disclosure is already required to be made in the MD&A section of Form 10-K.)

Appropriate ways of reporting the quantitative information that is encouraged will differ for different entities and will likely evolve over time as management approaches and measurement techniques evolve. Possibilities include disclosing:

- ▶ More details about current positions and perhaps activity during the period
- ▶ The hypothetical effects on comprehensive income (or net assets), or annual income, of several possible changes in market prices
- ▶ A gap analysis of interest rate repricing or maturity dates
- ▶ The duration of the financial instruments
- ▶ The entity's value at risk from derivatives and from other positions at the end of the reporting period and the average value at risk during the year

This list is not exhaustive, and an entity is encouraged to develop other ways of reporting quantitative information.

8.11.1 Credit-risk disclosures

8.11.1.1 Credit-risk-related contingent features

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Credit-Risk-Related Contingent Features

815-10-50-4H

An entity that holds or issues derivative instruments (or nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66) shall disclose all of the following for every annual and interim reporting period for which a statement of financial position is presented:

- a. The existence and nature of credit-risk-related contingent features
- b. The circumstances in which credit-risk-related contingent features could be triggered in derivative instruments (or such nonderivative instruments) that are in a net liability position at the end of the reporting period
- c. The aggregate fair value amounts of derivative instruments (or such nonderivative instruments) that contain credit-risk-related contingent features that are in a net liability position at the end of the reporting period
- d. The aggregate fair value of assets that are already posted as collateral at the end of the reporting period
- e. The aggregate fair value of additional assets that would be required to be posted as collateral if the credit-risk-related contingent features were triggered at the end of the reporting period

- f. The aggregate fair value of assets needed to settle the instrument immediately if the credit-risk-related contingent features were triggered at the end of the reporting period.

Amounts required to be reported for nonderivative instruments that are designated and qualify as hedging instruments pursuant to paragraphs 815-20-25-58 and 815-20-25-66 shall be the carrying value of the nonderivative hedging instrument, which includes the adjustment for the foreign currency transaction gain or loss on that instrument. Example 23 (see paragraph 815-10-55-185) illustrates a credit-risk-related contingent feature disclosure.

The Board concluded that disclosing information regarding the existence of credit-risk-related contingent features should provide information on potential cash flow issues that may result from an entity's use of derivatives (or nonderivative instruments that are designated and qualify as hedging instruments under ASC 815).

The Board decided that these disclosures would provide important information about the timing or likelihood of those contingencies being triggered, as well as the cash effect to the entity if the contingencies were triggered, and the magnitude of such contingencies. These disclosures provide better information on an entity's liquidity, if such contingencies are triggered.

One example of such a contingent feature is the possibility that the counterparty would immediately demand payment or require immediate collateralization of any net liability position in the event a rating agency were to downgrade an entity's debt to below investment grade (i.e., a material adverse change clause or payment acceleration clause).

The following example illustrates the disclosure of credit-risk-related contingent features in derivative instruments as required by ASC 815-10-50:

Illustration 8-3: Disclosure of credit-risk-related contingent features

Certain of the Company's derivative instruments contain provisions that require the Company's debt to maintain an investment grade credit rating from each of the major credit rating agencies. If the Company's debt were to fall below investment grade, it would be in violation of those provisions, and the counterparties to the derivative instruments could request immediate payment or demand immediate and ongoing full overnight collateralization on derivative instruments in net liability positions. The aggregate fair value of all derivative instruments with credit-risk-related contingent features that are in a liability position on 31 December 20X9 is \$50 million, for which the Company has posted collateral of \$10 million in the normal course of business. If the credit-risk-related contingent features underlying these agreements had been triggered on 31 December 20X9, the Company would be required to post an additional \$40 million of collateral to its counterparties.

Note that these disclosures are required only for derivatives that are in a liability position at the end of the reporting period, even though derivatives that are in an asset position may have the possibility of being in a liability position in the future.

How we see it

Entities should not underestimate the efforts required to identify credit-risk-related contingent features. A review of all ISDA documents should be performed to properly identify all credit-risk-related contingent features. Standard ISDA contracts include various credit-related provisions that would have a significant adverse effect on an entity's liquidity. Such provisions may require the posting of additional collateral upon a credit downgrade and/or other events of default. Other provisions may call for early termination and settlement of the derivative contract at its then-fair value upon the occurrence of a credit event.

Events of default are frequently defined in a standard ISDA contract as failure to pay or deliver, cross-default, bankruptcy, credit support default and breach of representation and warranties. Upon the occurrence of one of these events, the non-defaulting party may have the right to terminate the derivative contract. Termination provisions may be automatically triggered.

Examples of termination triggering events are illegality, a tax event and a force majeure event. A derivative contract may also include additional termination events negotiated in advance by the parties. Upon termination of a derivative contract, the party in a liability position is required to make payment to its counterparty to settle the derivative contract.

It appears that any derivative contract documented in the ISDA standard documentation would be within the scope of the credit-risk-related contingent feature disclosures, as these standard credit-related provisions are included in all ISDA contracts and mostly are based on an event related to the entity's credit. We confirmed with the FASB staff that such standard ISDA provisions related to a credit event of an entity are the "credit-risk-related contingent features" the disclosure requirement attempted to address and that these credit-related provisions do fall within the scope of the disclosure requirement. Some triggering events are of an "early warning" nature (e.g., a credit downgrade) and others are of a "last minute" nature (e.g., termination events), but both could have a significant adverse effect on the entity's liquidity.

Therefore, disclosing the existence and nature of these credit-related features will provide users of financial statements with important information about the timing or likelihood of a contingency trigger occurring and the cash effect to the entity upon its occurrence. Furthermore, highlighting nonstandard credit-risk-related contingent features that might be negotiated above and beyond the more boilerplate ISDA disclosures is recommended to help the user of the financial statements distinguish the more unusual features from the more standard ones.

8.11.1.2

Concentrations of credit risk

The counterparty credit risk disclosure requirements of ASC 825-10-50 apply to instruments accounted for under ASC 815. ASC 825-10-50-20 and 50-21 require entities to disclose, in a single location, the fair value³⁰⁴ of all financial instruments, including derivatives. The carrying amount of derivatives under ASC 815 and the amounts disclosed in accordance with ASC 825-10-50-20 and 50-21 should be the same (i.e., fair value).

- ▶ ASC 825-10-50-20 and 50-21 also require the following disclosures about each significant concentrations of credit risk arising from financial instruments involving individual counterparties and groups of counterparties if a number of counterparties are engaged in similar activities and have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions:
 - ▶ Information about the (shared) activity, region or economic characteristic that identifies the concentration
 - ▶ The maximum amount of loss due to credit risk that, based on the gross fair value of the financial instruments, the entity would incur if parties to the financial instruments that make up the concentration failed completely to perform according to the terms of the contracts and the collateral or other security, if any, for the amount due proved to be of no value to the entity
 - ▶ The entity's policy of requiring collateral or other security to support financial instruments subject to credit risk, information about the entity's access to that collateral or other security, and the nature and a brief description of the collateral or other security supporting those financial instruments

³⁰⁴ As determined in accordance with ASC 820.

- ▶ The entity's policy of entering into master netting arrangements to mitigate the credit risk of financial instruments, information about the arrangements for which the entity is a party and a brief description of the terms of those arrangements, including the extent to which they would reduce the entity's maximum amount of loss due to credit risk

8.11.1.3

Credit derivatives

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Credit Derivatives

815-10-50-4J

For purposes of the following paragraph, the term seller (sometimes referred to as a writer of the contract) refers to the party that assumes credit risk, which could be either:

- a. A guarantor in a guarantee type contract
- b. Any party that provides the credit protection in an option type contract, a credit default swap, or any other credit derivative contract.

815-10-50-4K

A seller of **credit derivatives** shall disclose information about its credit derivatives and hybrid instruments (for example, a credit-linked note) that have **embedded credit derivatives** to enable users of financial statements to assess their potential effect on its financial position, financial performance, and cash flows. Specifically, for each statement of financial position presented, the seller of a credit derivative shall disclose all of the following information for each credit derivative, or each group of similar credit derivatives, even if the likelihood of the seller's having to make any payments under the credit derivative is remote:

- a. The nature of the credit derivative, including all of the following:
 1. The approximate term of the credit derivative
 2. The reason(s) for entering into the credit derivative
 3. The events or circumstances that would require the seller to perform under the credit derivative
 4. The current status (that is, as of the date of the statement of financial position) of the payment/performance risk of the credit derivative, which could be based on either recently issued external credit ratings or current internal groupings used by the seller to manage its risk
 5. If the entity uses internal groupings for purposes of item (a)(4), how those groupings are determined and used for managing risk.
- b. All of the following information about the maximum potential amount of future payments under the credit derivative:
 1. The maximum potential amount of future payments (undiscounted) that the seller could be required to make under the credit derivative, which shall not be reduced by the effect of any amounts that may possibly be recovered under recourse or collateralization provisions in the credit derivative (which are addressed in items (c) through (f))
 2. The fact that the terms of the credit derivative provide for no limitation to the maximum potential future payments under the contract, if applicable

3. If the seller is unable to develop an estimate of the maximum potential amount of future payments under the credit derivative, the reasons why it cannot estimate the maximum potential amount.
 - c. The fair value of the credit derivative as of the date of the statement of financial position
 - d. The nature of any recourse provisions that would enable the seller to recover from third parties any of the amounts paid under the credit derivative
 - e. The nature of any assets held either as collateral or by third parties that, upon the occurrence of any specified triggering event or condition under the credit derivative, the seller can obtain and liquidate to recover all or a portion of the amounts paid under the credit derivative
 - f. If estimable, the approximate extent to which the proceeds from liquidation of assets held either as collateral or by third parties would be expected to cover the maximum potential amount of future payments under the credit derivative. In its estimate of potential recoveries, the seller of credit protection shall consider the effect of any purchased credit protection with identical underlying(s).

However, the disclosures required by this paragraph do not apply to an embedded derivative feature related to the transfer of credit risk that is only in the form of subordination of one financial instrument to another, as described in paragraph 815-15-15-9.

815-10-50-4L

One way to present the information required by the preceding paragraph for groups of similar credit derivatives would be first to segregate the disclosures by major types of contracts (for example, single-name credit default swaps, traded indexes, other portfolio products, and swaptions) and then, for each major type, provide additional subgroups for major types of referenced (or underlying) asset classes (for example, corporate debt, sovereign debt, and structured finance). With respect to hybrid instruments that have embedded credit derivatives, the seller of the embedded credit derivative shall disclose the information required by the preceding paragraph for the entire hybrid instrument, not just the embedded credit derivatives.

ASC 815-10-50-4K requires more discussion about the inputs to the estimate of fair value of credit derivative instruments by the sellers. The FASB believes that this information will allow users of the sellers' financial statements to have more insight about the potential adverse effects of changes in credit risk on the seller's financial position, financial performance, and cash flows. The disclosures are required for all credit derivatives, whether freestanding or embedded in hybrid instruments, bifurcated or not. Sellers of credit derivatives often are insurers, brokers and banks, but might also include investors in credit-linked notes and synthetic CDOs, which include embedded credit derivatives. This disclosure requirement does not apply to purchasers of credit derivatives.

ASC 815-10-50-4K permits disclosure about the current status of payment/performance risk to be based on either recently issued external credit ratings or current internal groupings used by the seller to manage its risk (with an explanation of how those groupings are determined). The ability of entities to use internal risk management groupings helps facilitate compliance with this requirement.

The credit derivatives disclosure requirements apply to both (1) embedded credit derivatives that are bifurcated and accounted for separately from the host contract as required by ASC 815 and (2) hybrid instruments that have nonbifurcated embedded credit derivatives (such as many credit-linked notes and synthetic CDOs issued by special purpose entities). The credit derivatives disclosure requirements do not apply to embedded features that relate only to the transfer of credit risk in the form of subordination of one financial instrument to another (i.e., embedded features that qualify for the embedded credit derivative scope exception in ASC 815).

With respect to hybrid instruments that are within its scope, ASC 815-10-50 requires that the disclosures listed above be provided for the entire hybrid instrument.

How we see it

This disclosure requirement affects investors in credit-linked notes. Investors in credit-linked notes absorb the credit risk of the issuer's assets (and liabilities), which might include a credit default swap referencing a specified entity other than the issuer. In return, the investors receive an enhanced coupon for absorbing that credit risk. In a typical credit-linked note structure, which may be issued through a trust, the notes contain an embedded credit default swap or total rate of return swap. In most situations, the embedded derivatives will be required to be bifurcated and accounted for separately from the host contract in accordance with ASC 815-15-15-9.

If the terms of a particular credit-linked note place the entire principal return at risk in the event of a credit event, we believe the investor would be required to disclose the entire principal amount as the maximum potential amount of future undiscounted payments that the seller/investor could be required to make. However, as noted in the preceding footnote, the "implicit" credit derivative evidenced by the subordination of one tranche of debt to another as issued by a securitization vehicle such as a trust is not subject to this disclosure requirement.

ASC 460-10 requires an additional disclosure about the status of the payment/performance risk of a guarantee. The disclosure about current status applies to all types of guarantees, not just those related to credit risk.

8.11.2

Other considerations

8.11.2.1

Disclosures of the effects of credit on the fair value of derivatives

There are no specific disclosure requirements that focus exclusively on the effect of ASC 820 and nonperformance risk on the fair value of derivatives. However, at the December 2008 AICPA Conference on SEC and PCAOB Developments, the SEC's Division of Corporation Finance staff recommended a series of disclosures in MD&A that they would view as a "best practice." Entities that have seen a significant effect from either the consideration of counterparty credit risk or their own credit risk or both on the fair value of their derivative contracts should consider the following suggested topics of discussion in MD&A:

- ▶ Quantify the effect of the entity's own credit risk and counterparty credit risk, similar to the mandatory fair value option disclosures in ASC 825-10-50-24 through 50-32 of the effects of one's own credit risk in valuing liabilities carried at fair value under the fair value option and the effects of counterparty credit risk for assets carried at fair value under the fair value option.
- ▶ Qualitatively discuss how credit risk is considered (for example, whether it is based on credit default spreads for either the counterparty or the entity or both).
- ▶ Separately quantify the effect on net income of the entity's own credit risk vs. the counterparty's credit risk.
- ▶ If the effect of credit risk on the fair value determination of derivatives is provided separately from the effect on items for which the fair value option has been elected, provide clear disclosure and cross-reference to the other disclosure.
- ▶ Disclose the effect of credit adjustments on the balance sheet at each balance sheet date.
- ▶ Discuss the events that affect the adjustment for credit and any material changes during the period.
- ▶ To the extent there are significant groups of counterparties that have a material impact on the fair value, consider quantifying that credit effect separately (such as the effect attributable to monoline insurers).
- ▶ Disclose how credit risk is monitored and managed.

It is reasonable to expect that SEC registrants may receive comment letters asking these and similar questions if MD&A is silent on the topic, and the staff notes significant derivative activity, particularly in reporting periods characterized by economic distress.

8.12 Financial statement presentation for designated and qualifying derivatives

ASC 815 generally requires the entire effect of the hedging instrument and hedged item to be presented in the same income statement line item. The table below summarizes the financial statement presentation as prescribed by ASC 815 by the different types of hedging relationships.

| Hedging instrument's change in fair value | Fair value hedges | | Cash flow hedges | | Net investment hedges | |
|---|---|---|---|---|---|---|
| | Recognition | Income statement presentation | Recognition | Income statement presentation | Recognition | Income statement presentation |
| Portion included in the assessment of effectiveness | Immediately in earnings | Same line item as the effect of the hedged item | OCI until the hedged item affects earnings | Same line item as the effect of the hedged item | CTA until the hedged item affects earnings | Same line item as the effect of the hedged item |
| Excluded components | Recognize in earnings under a systematic and rational method or make a policy election to recognize immediately in earnings | Same line item as the effect of the hedged item | Recognize in earnings under a systematic and rational method or make a policy election to recognize immediately in earnings | Same line item as the effect of the hedged item | Recognize in earnings under a systematic and rational method or make an election to recognize immediately in earnings | No guidance |

The guidance does not address income statement presentation for amounts reclassified from AOCI due to a missed forecasted transaction.

8.13 General financial statement presentation

Derivatives are assets or liabilities distinct from the assets or liabilities they are used to hedge, so it would be inappropriate to group derivatives on the statement of financial position with the items they hedge. For example, an interest rate swap might be in a fair value hedging relationship with a \$1,000,000 debt obligation. The adjusted carrying value of the debt obligation might be \$950,000, reflecting a \$50,000 debit for the change in fair value of the debt obligation attributable to interest rate risk. The interest rate swap might be a \$50,000 liability, reflecting an unrealized loss. The \$950,000 debt obligation liability should be presented on a separate line item from the \$50,000 interest rate liability. The SEC staff has explicitly stated that it would object to a combined presentation because the derivative liability is not associated with the future cash obligations to the debt holders.³⁰⁵

Many entities hold multiple derivative contracts that they use for accounting hedges, economic hedges, trading or other purposes. These derivatives may be assets or liabilities at any given balance sheet date. Unless the "right of offset" conditions set forth in ASC 210-20 are achieved, the fair value of contracts in a loss position (liabilities) should not be offset on the statement of financial position against the fair value of contracts in a gain position (assets). To allow offset would violate one of the fundamental cornerstones of ASC 815 – that derivatives are assets and liabilities and should be reported as such in the financial statements.

³⁰⁵ See remarks by E. Michael Pierce at the AICPA National Conference on Current SEC Developments in 2000.

Therefore, in the statement of financial position, assets and liabilities should be offset only if the conditions set forth in ASC 210-20 have been achieved. It should be noted that derivatives are conditional contracts and, as such, can be presented net when entered into under a master netting agreement notwithstanding the requirement to settle each contract by net cash payments (see next section). However, since one of the conditions of ASC 210-20 is that each of two parties owes the other determinable amounts, it would never be possible to offset a derivative asset and derivative liability that had a different counterparty.

8.13.1 Derivatives that are part of master netting arrangements

ASC 815-10-45-1 through 45-7 provides special offsetting guidance for derivative instruments. It permits a reporting entity to offset fair value amounts recognized for derivatives executed with the same counterparty under a master netting arrangement without applying the condition in ASC 210-20 that a reporting entity *intends* to set off. Effectively, the existence of the master netting arrangement replaces the requirement that a reporting entity intends to set off. The terms of the master netting arrangements³⁰⁶ typically grant the entity in the net asset position the right to require the counterparty to provide collateral in the form of cash. The entity in the net asset position recognizes the cash collateral received as an asset and recognizes a payable for the obligation to return the cash collateral. The entity that posts cash collateral derecognizes the cash collateral paid and recognizes a receivable for the right to reclaim the cash collateral.

ASC 815-10-45-1 through 45-7 permit offsetting of fair value amounts recognized for multiple derivatives executed with the same counterparty under a master netting arrangement and fair value amounts recognized for the right to reclaim cash collateral (a receivable) or the obligation to return cash collateral (a payable) arising from the same master netting arrangement as the derivatives. The fair value recognized for some contracts may include an accrual component for the periodic unconditional receivables and payables that result from the contract; the accrual component included therein may also be offset for contracts executed with the same counterparty under a master netting arrangement.

The guidance in ASC 815-10-45-1 through 45-7 permits the offsetting described above, but does not require it. A reporting entity must make an accounting policy decision to offset fair value amounts and must apply that decision consistently. Furthermore, a reporting entity that offsets fair value amounts for derivatives must also offset fair value amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral. However, if the amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral are not *fair value amounts*, then such amounts should not be included in the offsetting but the fair value amounts for the derivatives should continue to be offset if the reporting entity has made such an election. (Refer to section 8.13.3 for additional information related to balance sheet presentation and offsetting for certain centrally cleared derivative instruments.)

A reporting entity's accounting policy to offset or not offset should be disclosed. A reporting entity shall disclose the amounts recognized at the end of each reporting period for the right to reclaim cash collateral or the obligation to return cash collateral as follows:

- ▶ For a reporting entity that has made the accounting policy decision to offset. Such entities must separately disclose amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral that have been offset against net derivative positions. A reporting entity that has made an accounting policy decision to offset fair value amounts is not permitted to offset amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral against net derivative positions if those amounts (1) were not fair value amounts or (2) arose from instruments in a master netting arrangement that are not eligible to be offset. If an entity has not offset the right to reclaim cash

³⁰⁶ A master netting arrangement exists if the reporting entity has multiple contracts, whether for the same type of derivative or for different types of derivatives, with a single counterparty that are subject to a contractual agreement that provides for the net settlement of all contracts through a single payment in a single currency in the event of default on or termination of any one contract.

collateral or the obligation to return cash collateral under master netting arrangements against net derivative positions, the amounts recognized for such rights and/or obligations must be disclosed. (In such cases, the amounts are not fair value amounts or they would be required to be netted.)

- ▶ For a reporting entity that has made the accounting policy decision not to offset. Such entities must separately disclose the amounts recognized for the right to reclaim cash collateral or the obligation to return cash collateral under master netting arrangements.

For disclosure requirements and additional discussion related to these arrangements, see section 8.5.2.

8.13.2 Hybrid instruments

Some entities will be required to bifurcate embedded derivatives from their host instruments under ASC 815. ASC 815 does not specifically address the presentation of embedded derivatives on the statement of financial position or statement of financial performance. We believe that the bifurcation guidelines govern the statement of financial performance treatment for the bifurcated derivative and the remaining host instrument, but not necessarily the statement of financial position presentation. For example, the changes in fair value of a bifurcated embedded derivative should be reported in an “other income” or “other expense” category while the amortization of the resulting discount or premium, if any, on a debt-like instrument should be reported as a component of interest income for the holder (or interest expense for the issuer). Although the embedded derivative that has been bifurcated should be separately analyzed for the purpose of income statement classification, under certain circumstances it may be appropriate for the changes in the fair value of the embedded derivative to be presented in the same line item as the host contract. Determining the presentation of both the host contract and the bifurcated embedded derivative should be based on the individual facts and circumstances.

However, with respect to the statement of financial position, presenting the embedded derivative with the host contract, whether the result of the presentation is a net amount or an additive amount, is an appropriate presentation of an entity’s overall future cash flows for the instrument taken as a whole. Since the bifurcated derivative and the host instrument have the same counterparty, legal right of offset exists and the requirements of ASC 210-20 would be met. That is, combining the embedded derivative and the host contract may be appropriate. We understand that this view is consistent with the SEC staff’s position that ASC 815’s bifurcation requirements for embedded derivatives do not extend beyond measurement to presentation in the financial statements.³⁰⁷

For example, assume a debt obligation is issued with an interest rate tied to the price of oil. As the embedded interest feature is not clearly and closely related to the host debt instrument, it requires bifurcation and separate valuation. However, as the embedded derivative and host debt instrument together represent the principal and interest obligations to the debt holder, a combined presentation in the financial statements would be an appropriate presentation and would meet the offsetting requirements under ASC 210-20. Furthermore, it is the SEC staff’s belief that this is the preferred presentation, except as noted in the following paragraph.

In the unusual scenario in which a hybrid instrument is determined to consist of an equity host presented in shareholders’ equity, but with an embedded derivative that is required to be bifurcated because it is not clearly and closely related to equity, separate presentation on the statement of financial position for the equity host and the bifurcated derivative is appropriate.³⁰⁸ A derivative must be either an asset or a liability, and if it is required to be bifurcated, it should not be displayed in equity on the statement of financial position.

³⁰⁷ Refer to remarks by E. Michael Pierce at the AICPA National Conference on Current SEC Developments in 2000.

³⁰⁸ Refer to *Current Accounting and Disclosure Issues in the Division of Corporate Finance* as of 30 November 2006 (Section II.M.3).

For entities issuing securities with embedded features (such as convertible debt instruments), the SEC staff has encouraged explicit disclosure as to how the potential for the existence of an embedded derivative was considered and the related conclusions. The SEC staff has also noted that for these types of instruments, disclosures of the terms and features of the issued financial instruments, including registration rights agreements, would be required under ASC 505-10-50 and ASC 825-20.

8.13.3 Centrally cleared derivative instruments

After the financial crisis of 2008, lawmakers and regulators around the world took steps to increase liquidity and reduce counterparty credit risk in the OTC derivatives market. In the US, the Dodd-Frank Wall Street Reform and Consumer Protection Act requires many OTC derivatives to be centrally cleared unless the end user qualifies for an exception to this rule. The European Market Infrastructure Regulation also requires central clearing for certain OTC derivatives.

Parties to a centrally cleared OTC derivative exchange daily payments that reflect the daily change in value of the derivative. These payments are commonly referred to as “variation margin” and serve to protect the parties from a loss if one of them were to default. Historically, variation margin payments have typically been treated as collateral against the derivative position, and the receiving party pays interest to the party that posted the collateral.

For accounting purposes, collateral payments (along with the interest paid or received on them) are generally treated as a separate unit of account from the derivative instrument. As such, entities report a deposit liability (or similar account) for cash collateral received and a receivable (or similar account) for cash collateral paid. However, entities that meet the offsetting criteria in ASC 815-10-45 (as discussed in section 8.13.1) and have made an accounting policy decision to offset fair value amounts present these balances on a net basis in the balance sheet. From an income statement perspective, interest paid or received on these liabilities and assets is accrued in interest expense or interest income, respectively.

Certain clearinghouses such as the Chicago Mercantile Exchange and LCH. Clearnet Limited amended their rulebooks a few years ago to legally characterize variation margin payments for certain OTC derivatives they clear as settlements of the derivatives’ exposures rather than collateral against the exposures. These contracts are commonly referred to as settled-to-market (STM) contracts, in contrast to collateralized-to-market (CTM) contracts where variation margin payments are treated as collateral rather than legal settlements of the derivatives exposure.

How we see it

To support the characterization of variation margin payments as settlements, entities may need to perform their own legal analysis. This would consider the nature of the contracts an entity is party to and the legal framework that governs them.

The legal characterization of centrally cleared derivatives as STM or CTM contracts should not change the amounts counterparties will exchange under these contracts. This is because variation margin in an STM contract is adjusted daily by an amount that is commonly referred to as the “price alignment amount” (PAA), which is identical to the interest that was paid/received on the aggregate collateral balance. Notwithstanding this, the rulebook changes have certain accounting implications for both end users and institutions that serve as clearing members. These implications primarily stem from the fact that variation margin legally determined to be a settlement payment and the corresponding derivative instrument would be considered a single unit of account for accounting and presentation purposes.³⁰⁹

³⁰⁹ In response to a question from ISDA, the SEC’s Office of the Chief Accountant stated in 2016 that it did not object to ISDA’s conclusion that variation payments deemed to be legal settlements would be considered as a single unit of account with the derivative for accounting and presentation purposes.

8.13.3.1 Hedge accounting implications

Given that many entities use centrally cleared derivatives as hedging instruments, a number of questions were raised about the potential effect the rulebook changes might have on applying hedge accounting to both existing and future hedging relationships. These questions primarily focused on the hedge accounting implications of including the PAA and variation margin cash flows in the same unit of account as the hedging instrument.

In response to various questions raised by ISDA, the SEC's Office of the Chief Accountant stated that the staff would not object to the conclusions reached by ISDA³¹⁰ that:

- ▶ The dedesignation and redesignation of existing hedging relationships would not be required solely because of the rulebook changes made by certain clearinghouses.
- ▶ The daily settlement of the derivative exposure through daily payment or receipt of variation margin amounts would not require a daily dedesignation and redesignation of hedging relationships.
- ▶ Including PAA and variation margin in a single unit of account with the derivative would not prohibit application of the shortcut method.

The SEC staff also weighed in on the question of whether the inclusion of PAA in the single unit of account with the hedging derivative should impact the assessment of effectiveness for cash flow and fair value hedges not accounted for under the shortcut method. The SEC staff indicated that it believes entities should immediately recognize daily PAA in earnings and not consider this amount in the assessment of hedge effectiveness. The SEC staff's view is consistent with the treatment of these cash flows (i.e., interest on variation margin) when variation margin payments were legally characterized as collateral payments and accounted for as a separate unit of account from the derivative instrument.

8.13.3.2 Balance sheet presentation and netting

For STM contracts, variation margin paid or received is not accounted for separately as an interest-bearing asset or liability. Instead, these payments are considered in determining the fair value of the centrally cleared derivative, effectively resulting in the derivative having a fair value that approximates zero on a daily basis.

Determining whether netting collateral balances against derivative instruments is appropriate under the balance sheet offsetting rules is not required for STM contracts because these rules do not apply to a single unit of account. This could result in a significant change for entities that had previously presented their derivative and collateral balances on a gross basis.

8.13.3.3 Income statement presentation

For STM contracts that are not part of a hedging relationship, "interest" on variation margin payments (i.e., PAA) would be recorded in the same line item where the entity reports the change in fair value of its non-hedging derivatives. This may result in these amounts being presented in line items such as trading gains and losses or other income/expense, as opposed to interest income or interest expense.

For entities such as investment companies that separately present realized versus unrealized gains and losses in their financial statements, questions arose as to whether all changes in the fair value of STM contracts would need to be classified as realized gains and losses. In response, the SEC's Division of Investment Management indicated that the staff would not object to funds accounting for the change in

³¹⁰ The ISDA submissions to the SEC staff, along with the related confirmation letter, can be accessed using the following links: www2.isda.org/attachment/OTA40A==/ISDA%20SEC%20VM%20Settlement%20Confirming%20letter.pdf, www2.isda.org/attachment/OTA40Q==/ISDA%20VM%20Settlement%20Whitepaper%20final%20.pdf, [www2.isda.org/attachment/OTA5Mw==/VM%20as%20settlement_Additional%20paper%20for%20SEC%20final%20%20\(003\).pdf](http://www2.isda.org/attachment/OTA5Mw==/VM%20as%20settlement_Additional%20paper%20for%20SEC%20final%20%20(003).pdf) and [www2.isda.org/attachment/OTA5Mg==/LCH_STM_Model_Responses_to_SEC_final%20\(003\).pdf](http://www2.isda.org/attachment/OTA5Mg==/LCH_STM_Model_Responses_to_SEC_final%20(003).pdf).

fair value of open STM contracts as either (1) unrealized gains and losses until the delivery or termination date of the contract or (2) realized gains and losses when variation margin is transferred, provided that the fund made an accounting policy election that it applies consistently to all centrally cleared derivatives where variation margin payments are deemed legal settlements (e.g., futures contracts and STM contracts).

8.13.3.4 **Statement of cash flows**

As a result of the change to the legal characterization of variation margin payments, questions were raised as to whether variation margin payments and receipts in STM contracts would be required to be presented consistently with other settlement payments of derivatives in the statement of cash flows.

In response to this question, the SEC's Office of the Chief Accountant indicated that the staff would not object to entities presenting variation margin cash flows differently from other cash flows from the related derivative instrument, with one exception. Consistent with the guidance in ASC 230, the SEC staff noted that all cash inflows and outflows (including variation margin payments and receipts) of a derivative instrument that includes an other-than-insignificant financing element at inception should be considered cash flows from financing activities by the borrower. (Refer to section 8.15 for additional discussion of the presentation of derivative instruments on the statement of cash flows.)

8.13.3.5 **Disclosures**

The SEC staff also indicated that it would not object to the following conclusions reached by ISDA with respect to derivative disclosures:

- ▶ The derivative disclosure requirements in ASC 815 would continue to apply to affected contracts because these contracts remain term instruments, and daily settlement of the derivative exposure does not change or reset the contractual terms of the instrument.
- ▶ The requirements in ASC 815-10-50-4B(b) regarding cash collateral disclosures should not be applied to variation margin amounts related to affected contracts.

How we see it

Given that the fair value of the affected derivative contracts will generally approximate zero, the amounts entities disclose in accordance with the requirements of ASC 820 could decline significantly.

8.13.4 **Portfolio layer method hedges after the adoption of ASU 2022-01 (added September 2023)**

8.13.4.1 **Balance sheet considerations**

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

Basis Adjustment Considerations under the Portfolio Layer Method

815-10-50-5B

For existing hedging relationships designated under the portfolio layer method, an entity shall not disclose the basis adjustment on a more disaggregated basis than the portfolio layer method closed portfolio to meet the objectives of disclosure requirements in other Topics unless that disaggregation is required in accordance with paragraph 815-20-45-4. After an entity allocates a basis adjustment in accordance with paragraph 815-20-45-4 (if applicable), if other Topics require the disclosure of the amortized cost basis of assets included in the closed portfolio on a basis that requires disaggregating the assets included in the closed portfolio, the entity shall exclude the portfolio layer method basis

adjustment from the amortized cost basis of those assets. In that case, the entity shall disclose the total amount of the portfolio layer method basis adjustment excluded from the amortized cost basis of the assets included in the closed portfolio.

Derivatives and Hedging – Hedging- General

Other Presentation Matters

Balance Sheet Classification

815-20-45-4

For an existing portfolio layer method hedge, if the assets included in the same closed portfolio are presented in different line items in the statement of financial position, an entity shall allocate the portfolio layer method basis adjustment to the assets' associated line items in the statement of financial position using a systematic and rational method.

For an existing portfolio layer method hedge, ASC 815-20-45-4 provides that if the assets included in a single closed portfolio are presented in different line items in the statement of financial position, an entity must allocate the portfolio layer method basis adjustment to the different line items using a systematic and rational method.

However, the guidance in ASC 815-10-50-5B notes that an entity should not disclose the fair value basis adjustment of existing portfolio layer method hedges on a more disaggregated basis than the closed portfolio level, unless disaggregation is required as discussed in the preceding paragraph. The guidance indicates that if other topics in US GAAP require the disclosure of the amortized cost basis of the assets in the closed portfolio on a more disaggregated basis, the entity is required to exclude the basis adjustment from the amortized cost basis of these assets and instead disclose the total amount of the portfolio layer method basis adjustment that has been excluded from the amortized cost basis of the assets in the closed portfolio.

8.13.4.2

Income statement considerations

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Subsequent Measurement

Changes in Fair Value in General

815-25-35-6

If a hedged item is otherwise measured at fair value with changes in fair value reported in **other comprehensive income** (such as an available-for-sale debt security), the adjustment of the hedged item's carrying amount discussed in paragraph 815-25-35-1(b) shall be recognized in earnings rather than in other comprehensive income to offset the gain or loss on the hedging instrument. If the hedged item is a hedged layer designated in a portfolio layer method hedge on a closed portfolio in accordance with paragraph 815-20-25-12A and the closed portfolio includes only available-for-sale debt securities, the entire gain or loss (that is, the change in fair value) on the hedged item attributable to the hedged risk shall be recognized in earnings rather than in other comprehensive income to offset the gain or loss on the hedging instrument. If the closed portfolio includes available-for-sale debt securities and assets that are not available-for-sale debt securities, an entity shall determine the portion of the change in fair value on the hedged item attributable to the hedged risk associated with the available-for-sale debt securities using a systematic and rational method. That amount shall be recognized in earnings rather than in other comprehensive income. However, an entity shall not adjust the carrying amount of the individual available-for-sale debt securities included in the closed portfolio in accordance with paragraph 815-25-35-1(c).

Under the fair value hedge accounting model, if the hedged item is otherwise measured at fair value through other comprehensive income (OCI) (e.g., when the hedge item is an available-for-sale (AFS) debt security), the adjustment of the hedged item's carrying amount is recognized in earnings rather than in OCI to offset the gain or loss on the hedging instrument.

This approach also applies when the hedged item is a hedged layer designated in a portfolio layer method hedge and the closed portfolio includes AFS debt securities. However, if the closed portfolio includes both AFS debt securities and non-AFS debt securities, an entity is required to determine the portion of the change in fair value on the hedged item attributable to changes in the benchmark interest rate that is associated with the AFS debt securities in the closed portfolio using a systematic and rational method and to recognize this amount in earnings rather than OCI.

The following illustration demonstrates how this concept could be applied.

Illustration 8-4: Allocating the basis adjustment when a closed portfolio includes both AFS and non-AFS debt securities

Assume that on 1 March 20X1, Company A establishes a closed portfolio of \$140 million in financial assets, consisting of both AFS (\$84 million) and non-AFS (\$56 million) debt securities. On the same date, Company A designates \$100 million as the hedged item in a single-layer hedge under the portfolio layer method and enters into a plain vanilla interest rate swap as the hedging instrument.

On 30 March 20X1, Company A determines that the change in fair value of the hedged layer attributable to the benchmark interest rate risk being hedged (i.e., the fair value hedge basis adjustment) is \$10 million. Company A also determines that the overall change in fair value of the AFS debt securities in the closed portfolio for the month is \$15 million.

To determine the amount of the change in fair value of the AFS securities that should be recognized in earnings instead of OCI, Entity A needs to allocate the fair value hedge basis adjustment for the hedged layer between the AFS securities and non-AFS securities in the closed portfolio in accordance with ASC 815-25-35-6.

Company A allocates a portion of the fair value hedge basis adjustment to the AFS debt securities using a pro rata calculation based on the amount of AFS and non-AFS securities in the portfolio, which Company A determines to be a systematic and rational method. Based on this methodology, Entity A determines that \$6 million of the basis adjustment should be allocated to the AFS debt securities ($\$10\text{mm} * \$84\text{mm} / \$140\text{mm}$). This represents the portion of the change in the fair value of the hedged layer associated with the AFS debt securities in the closed portfolio that should be recognized in earnings rather than in OCI.

As a result, \$6 million of the overall change in fair value of the AFS debt securities for the month would be recorded to earnings, with the remaining \$9 million of the change in the overall fair value of the AFS debt securities ($\$15\text{mm} - \6mm) recorded in OCI.

Company A makes the following journal entry on 30 March 20X1 to record the change in fair value of AFS debt securities:

| | | |
|----------------------------|-------|------|
| AFS debt securities | \$ 15 | |
| Other comprehensive income | | \$ 9 |
| Earnings | | \$ 6 |

Note: If the entire \$140 million of financial assets in the closed portfolio had been AFS debt securities, no allocation would be required. For example, assume under this scenario, that the change in fair value of the hedged layer attributable to the benchmark interest rate risk being hedged for the month is \$10 million and that Company A determines that the overall change in fair value of AFS debt securities in the closed portfolio for the month is \$25 million. In this case, the entire fair value basis adjustment of \$10 million would be recorded in earnings, and the remaining \$15 million of the change in the overall fair value of the AFS debt securities (\$25mm - \$10mm) would be recorded in OCI.

Consistent with the requirement to maintain the fair value hedge basis adjustment on a closed portfolio basis, the entity would not adjust the carrying amount of the individual AFS debt securities included in the closed portfolio.

8.13.4.3

Breach of hedged layer or layers

Excerpt from Accounting Standards Codification

Derivatives and Hedging – Overall

Disclosure

815-10-50-5C

For hedging relationships designated under the portfolio layer method, if the outstanding amount of the closed portfolio is less than the hedged layer or layers in accordance with paragraph 815-25-40-8(b) (that is, a breach occurred), an entity shall disclose:

- a. The amount of the hedge basis adjustment recognized in current-period interest income because of the breach
- b. The circumstances that led to the breach.

Derivatives and Hedging – Hedging- General

Other Presentation Matters

Income Statement Classification

815-20-45-1CC

If a breach of a portfolio layer method hedge has occurred in accordance with paragraph 815-25-40-8(b), an entity shall present in interest income the basis adjustment associated with the **hedged layer** (or portion thereof) that is no longer outstanding.

If an actual breach of a portfolio layer method hedge occurs, an entity is required to determine the portion of the basis adjustment associated with the amount of the breach using a systematic and rational approach and recognize that amount in interest income immediately in accordance with 815-25-40-9. In addition, ASC 815-10-50-5C requires the entity to disclose the amount of the hedge basis adjustment recognized in current-period interest income due to the breach and the circumstances that led to the breach.

8.14

Financial statement presentation for derivatives not used in ASC 815 hedges

Derivatives may be used for various reasons other than as hedges designated under ASC 815, including trading, economic hedging or other purposes. ASC 815 does not provide guidance on the statement of financial performance classification of those derivatives.

While ASC 815-10-50 is generally “silent on geography” regarding statement of financial performance presentation, it requires disclosure as to where those derivatives are reported in the statement of financial performance. In addition, some guidance has been provided by the FASB staff and SEC staff related to the statement of financial performance presentation for some situations that are discussed below.

8.14.1 Derivatives held for trading purposes

ASC 815-10-45-9 addresses the statement of financial performance presentation for all derivatives held for trading purposes. This guidance indicates that gains and losses (realized and unrealized) on all derivative instruments within the scope of ASC 815 should be shown net when recognized in the income statement, whether or not they are settled physically, if the derivative instruments are held for trading purposes.

ASC 815 indicates that the determination of what constitutes trading purposes is based on the intent of the issuer or holder and must be consistent with the definition of trading in ASC 320. That is, trading means the “active and frequent buying and selling ... with the objective of generating profits on short-term differences in price.” ASC 815-10-45-9 notes that on an ongoing basis, reclassifications into and out of trading should be rare.

8.14.2 Derivatives that are subject to ASC 815 but not held for trading purposes

ASC 815-10-55-62 indicates that determining whether realized gains and losses on physically settled derivative contracts not “held for trading purposes” should be reported in the statement of financial performance on a gross or net basis is a matter of judgment that depends on the relevant facts and circumstances.³¹¹ Consideration of the facts and circumstances should be made in the context of the various activities of the entity rather than based solely on the terms of the individual contracts. In evaluating the facts and circumstances for purposes of determining whether an arrangement should be reported on a gross or net basis, the guidance notes that the economic substance of the transaction may be considered along with the guidance set forth in (1) ASC 845, relative to nonmonetary exchanges, and (2) the principal versus agent considerations provided in ASC 606-10-55-36 through 55-40.

8.14.3 Derivatives that are used as economic hedges

The SEC staff, in its reviews of registrant filings, has observed entities classifying changes in fair value of economic hedges in a single line item on the income statement (e.g., under “Trading activities”) with realized gains and losses, represented by cash settlements from those economic hedges, reclassified in the period realized out of “Trading activities” and into revenue or expense lines associated with the related exposure.

How we see it

In this excerpt from the *Current Accounting and Disclosure Issues in the Division of Corporate Finance* as of 30 November 2006 (Section II.M.3), the SEC staff stated, “We generally believe that a presentation that splits the components of a derivative into different line items on the income statement or that reclassifies realized gains and losses of a derivative out of the line item that included unrealized gains and losses of the same derivative is inappropriate. For example, if a registrant classifies changes in fair value of economic hedges (unrealized gains and losses) in a single line item such as ‘risk management activities,’ a registrant should not reclassify realized gains and losses (the periodic or final cash settlements from these economic hedges) in the period realized out of risk management activities and into revenue or expense lines associated with the related exposure. While Statement 133 was essentially ‘silent on geography,’³¹² it was the clear intention of the FASB to eliminate the practice of synthetic instrument accounting.”

³¹¹ While not included in the Codification, EITF Issue No. 03-11, *Reporting Realized Gains and Losses on Derivative Instruments That Are Subject to FASB Statement No. 133 and Not “Held for Trading Purposes” as Defined in Issue No. 02-3*, provides illustrative journal entries for a commodity forward contract that is gross physically settled (full amount of commodity delivered for full payment) and that was not used in a hedging relationship from both a gross and net statement of financial performance presentation. In addition, this EITF Issue also provides journal entries (on a gross and net basis) for that same commodity forward contract assuming it was designated as an “all-in-one” hedge.

³¹² While ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, included presentation guidance for derivatives designated as the hedging instrument in an accounting hedging relationship, ASC 815 continues to remain silent on the presentation of derivatives used in economic hedges.

Given the SEC staff's view that a split presentation is generally not appropriate, all of the changes in fair value for the economic hedge would need to be presented in a single line item. Again, the SEC staff acknowledged that while ASC 815 does not provide specific guidance on income statement geography for economic hedges, some classifications may not make sense. The staff gave the specific example that a financial institution classifying in the provision for loan losses all changes in credit derivatives used as economic hedges would not seem appropriate given the importance of that line item to certain credit quality analyses.

The SEC staff expressed its view that the Board clearly intended to eliminate the practice of synthetic instrument accounting and that the presentation described above was essentially a form of synthetic instrument accounting from an income statement perspective. In addition, the SEC staff believes that ASC 815 is clear that any special accounting for derivatives requires special efforts, only allowing the fair value adjustment of a derivative to be split into various components within the context of applying specific hedge accounting models. Reclassifying realized gains and losses, as described, essentially presents hedge accounting-like results for some income statement captions, without a registrant necessarily applying the rigors of hedge accounting.

How we see it

We recommend that entities consider presenting these amounts for economic hedges in a single line item or as a component of "other income or expense." While arguably the total effect (both unrealized and realized) could be presented with the associated "hedged" item in a specific revenue or expense line, we caution that this treatment would frequently distort historical results and any trends or ratios calculated based on those results given the more volatile fair value measurement attribute of the derivative since its value is influenced by expected cash flows attributable to many future periods.

As noted above, the SEC staff generally believes that reclassification of realized gains or losses of a derivative instrument (or split presentation) would not be appropriate for the end user of a derivative absent a designated hedging relationship. However, the staff acknowledged that in certain circumstances the writer of an option contract accounted for as a derivative may have a better argument for split presentation, noting that for some entities, writing freestanding derivatives may be a significant part of their business. As such, these entities may feel that a split presentation more appropriately reflects their business model.

In these cases, the staff would expect the writer to clearly disclose the carrying amount and classification of derivatives in the statement of financial position and the amounts and classification of the components of a derivative's change in fair value in the statement of financial performance, including any premiums received, any other changes realized in a cash settlement, and any unrealized changes in fair value. The staff deems these disclosures critical to an investor's ability to perform "apples-to-apples" comparisons when two companies may have different classification policies.³¹³

How we see it

At the AICPA Investment Companies Expert Panel meeting in March 2004, SEC staff members from the Division of Investment Management expressed their views on derivative classification for interest rate swaps held by registered investment companies. They stated that some investment companies reported receipts or payments under a swap as "investment income" and the other changes in fair value as a change in unrealized appreciation/depreciation (essentially the same split presentation described above for economic hedges). Noting that interest rate swaps generally would not qualify for hedge accounting at an investment company, the SEC staff stated that for all periods ending after 15 March 2004, reporting swap receipts or swap payments as an element of "investment income" instead of as a part of "realized gains and losses" would not be acceptable. Further, all fair value adjustments should be reflected in "unrealized appreciation/depreciation" as appropriate. The SEC staff also stated that similar presentations would be expected for other derivatives.

³¹³ See remarks by Gregory A. Faucette at the 2003 AICPA National Conference on Current SEC Developments.

8.15 Cash flow statement presentation

While the guidance in ASC 230 and ASC 815 on the presentation of cash flows from derivative instruments is limited, ASC 230-10-45-27 does provide some guidance on the presentation of cash receipts and payments from derivatives, including those designated in a hedging relationship.

We address some common issues that have arisen in practice below. Refer to our FRD, *Statement of cash flows*, for additional information.

Excerpt from Accounting Standards Codification

Statement of Cash Flows – Overall

Other Presentation Matters

Cash Receipts and Payments Related to Hedging Activities

230-10-45-27

Generally, each cash receipt or payment is to be classified according to its nature without regard to whether it stems from an item intended as a hedge of another item. For example, the proceeds of a borrowing are a financing cash inflow even though the debt is intended as a hedge of an investment, and the purchase or sale of a futures contract is an investing activity even though the contract is intended as a hedge of a firm commitment to purchase inventory. However, cash flows from a derivative instrument that is accounted for as a fair value hedge or cash flow hedge may be classified in the same category as the cash flows from the items being hedged provided that the derivative instrument does not include an other-than-insignificant financing element at inception, other than a financing element inherently included in an at-the-market derivative instrument with no prepayments (that is, the forward points in an at-the-money forward contract) and that the accounting policy is disclosed. If the derivative instrument includes an other-than-insignificant financing element at inception, all cash inflows and outflows of the derivative instrument shall be considered cash flows from financing activities by the borrower. If for any reason hedge accounting for an instrument that hedges an identifiable transaction or event is discontinued, then any cash flows after the date of discontinuance shall be classified consistent with the nature of the instrument.

8.15.1 Classification of settlement cash flows for non-option derivatives

ASC 230-10-45-27 describes the purchase or sale of a futures contract as an investing activity. However, some believe this broad characterization is inconsistent with ASC 815, which states that one of the fundamental characteristics of a derivative is that the contract requires no (or a small) initial net investment.

Non-option derivatives (e.g., futures, forwards, interest rate swaps) are not purchased or sold per se but are instead typically entered into with zero initial investment. That is, they don't have initial cash flows, and all subsequent cash flows relate to either partial settlement or final settlement of the contract. Because non-option derivatives generally do not require an investment, questions were raised about whether the cash flows from these contracts must be classified as investing activities in the statement of cash flows.

In our view, settlement cash flows from derivatives that are not directly addressed by ASC 815 as financing activities (see discussion in section 8.15.2) are not necessarily either exclusively investing activities or exclusively operating activities. Rather, entities should evaluate the nature of the use of the derivatives to determine the appropriate classification as an operating or investing activity.

Many believe that the settlement of a derivative contract that is not designated as an accounting hedge should be categorized as an investing activity given the guidance in ASC 230-10-45-27. However, others believe that the cash flow settlement could be an operating activity, depending on the outcome of a full analysis of the nature of the use of the derivative.

In addition, while the guidance in ASC 230-10-45-27 would seem to indicate that it is generally not appropriate to consider the cash flow presentation of the “hedged” item in an economic hedge when determining how to classify the cash flows of the derivative instrument because the derivative has not been designated in an accounting hedge, we note that diversity in practice exists in certain industries where entities’ risk management strategies rely on the use of economic hedges in lieu of applying hedge accounting.

8.15.2 Derivatives with financing elements

Both ASC 230 and ASC 815 require that all cash flows related to a derivative instrument containing an other-than-insignificant financing element at inception be reflected in the borrower’s statement of cash flows as cash flows from financing activities. Our understanding is that this guidance is intended to prevent a derivative from being used to hide a borrowing and, thus, not reflect the true nature of a liability in the financial statements. The FASB has not explicitly addressed the presentation of cash flows from a derivative containing a financing element for the lender. However, we believe classifying those cash flows in investing activities is appropriate but not required.

The FASB acknowledges in ASC 815-10-45-11 that identifying a contract with a financing element is a matter of judgment but notes that derivative contracts that, at inception, contain off-market terms or require an up-front payment, or both, often contain a financing element. We note that when an existing derivative instrument is amended, the modified instrument will typically contain off-market terms at the time of the amendment. Therefore, we believe that the amended derivative instrument should be evaluated to determine whether it contains an other-than-insignificant financing element.

For example, consider a “blend and extend” transaction in which an entity renegotiates the terms of its existing pay-fixed, receive variable interest rate swap (liability) with the bank counterparty to (1) extend the maturity date so that the expected cash outflows on the swap are spread over a longer period of time and (2) amend the fixed rate so that the fair value of the swap remains essentially the same before and after the amendments. In this transaction, the entity is essentially “rolling” one derivative contract into a new derivative contract with the same (negative) fair value but different terms, thereby avoiding the cash outflow that would be required to terminate the original derivative. The amended derivative would be considered to contain a financing element, since the transaction is akin to the entity having received a loan to pay off the first derivative, and the “payback” of that loan is embedded into the terms of the new derivative contract.

Furthermore, contracts that are designed to provide cash inflows for one party in early periods followed by cash outflows to the counterparty in later periods often contain a financing element. These differ from other instruments, such as at-the-money or out-of-the-money option contracts that require an up-front premium payment solely for the option’s time value or swaps that are expected (but not certain) to result in cash inflows in early periods followed by cash outflows in later periods.

8.15.3 Cash flows of derivatives designated in a hedging relationship

As described in ASC 230-10-45-27, cash flows of derivatives that don’t contain an other-than-insignificant financing element and are designated in cash flow or fair value hedges may be reflected in the statement of cash flows consistent with the presentation of the hedged item. This includes options that require an up-front premium payment solely as compensation for time value or swaps that are expected (but not certain) to result in cash inflows in early periods followed by cash outflows in later periods. The decision to classify cash flows from hedging derivatives consistently with the classification of the hedged item is an accounting policy that must be disclosed.

8.15.3.1

Termination payment/receipt of forward-starting swap hedging forecasted issuance of fixed-rate debt

When entities hedge the forecasted issuance of fixed-rate debt with forward-starting swaps, they will typically terminate the swaps on the debt issuance date (i.e., when the risk of variability in the cash flows ceases to exist). If market interest rates have increased, the hedger will be entitled to a cash receipt on settlement of the swap. If market interest rates have decreased, the hedger must make a cash payment to the swap counterparty on settlement. Questions have been raised about the appropriate classification on the statement of cash flows of the termination payments made/received to settle the forward-starting swap.

While ASC 230-10-45-27 indicates that cash receipts or payments are generally classified according to their nature, the guidance also states that cash flows from a derivative instrument designated in a hedging relationship may be classified in the same category as the cash flows from the items being hedged, provided that the derivative does not include an other-than-insignificant financing element at inception and that the accounting policy is disclosed.

Example 21 in ASC 815-30-55-128 through 55-133 discusses the following two strategies that companies can use when hedging the forecasted issuance of fixed-rate debt:

- ▶ Entity A plans to issue fixed-rate debt in six months at or near par at the then-current market interest rate. As a result, there will be no variability in debt proceeds, but each of the probable interest payments that will result from the debt is exposed to variability up until the date of issuance. In this case, Entity A would document that it is hedging the variability in future interest payments due to changes in the benchmark interest rate.
- ▶ Entity B plans to issue fixed-rate debt in six months at a fixed interest rate of 9%, regardless of what the then-market interest rate will be. As a result, the proceeds will vary, with the debt being issued at a discount or premium, depending on the market rate on the issuance date. However, the interest payments are not exposed to variability (because the company has already indicated the coupon rate it intends to pay). In this case, Entity B would document that it is hedging the variability in the cash proceeds attributable to changes in the benchmark interest rate.

While Entity A and Entity B would designate different cash flows as being hedged in these examples, they would use the *identical* forward-starting interest rate swap as a hedging instrument in both situations.

Based on the guidance in ASC 230-10-45-27 that cash flows from a derivative instrument designated in a hedging relationship may be classified in the same category as the cash flows from the items being hedged, we believe it would be appropriate for Entity A to classify the cash settlement of the swap (either inflow or outflow) as operating because it is hedging interest payments, which are an operating cash flow item, and for Entity B to classify the cash settlement of the swap as financing because it is hedging the debt proceeds, which are a financing cash flow item.

However, we are aware that some, in practice, have taken the view that the classification of the debt issuance proceeds should be viewed collectively with the cash inflow or outflow from the termination of the hedging swap when determining classification on the statement of cash flows. They argue that Entity A has effectively created synthetic discount debt or synthetic premium debt, while Entity B has created synthetic at-par debt. Therefore, they believe it is acceptable in both situations to consider the debt issuance proceeds together with the cash inflow or outflow from hedge termination as financing cash flows.

In addition, they note that since Entities A and B are using the identical derivative to hedge their financing programs, the cash flow statement presentation of the swap termination payments in the above example should not differ. They believe the guidance in Example 21 only addresses the issue of when amounts in AOCI would be reclassified to earnings if the debt is issued at a date later than originally forecasted and does not specifically address cash flow statement presentation.

Finally, proponents of this view believe that recording Entity A's hedge termination cash flow, a potentially large number, as operating before any interest cash flows on the hedged debt have begun would not be meaningful to investors.

We believe it is acceptable to classify the cash flows from the settlement of the forward-starting swap under the hedge strategy executed by Entity A in the example above as either operating or financing. The determination should be based upon an accounting policy election that is well disclosed and consistently applied.

8.15.4 Trading derivatives

The description of investing cash flows in ASC 230-10 excludes cash flows from securities classified as trading under ASC 320. Therefore, we believe it is reasonable to classify cash flows from derivatives held for trading under operating cash flows, subject to the additional guidance in ASC 815 related to derivatives containing financing elements (discussed above in section 8.15.2).

9 ASU 2022-01 effective date and transition (added September 2023)

9.1 Introduction

The FASB issued ASU 2022-01 to expand the use of what is now referred to as the portfolio layer method (previously the last-of-layer method) to better align hedge accounting for fair value hedges of interest rate risk with entities' risk management objectives.

9.2 Effective date

The guidance is effective for public business entities for fiscal years beginning after 15 December 2022, and interim periods within those fiscal years. For all other entities, it is effective for fiscal years beginning after 15 December 2023, and interim periods within those fiscal years. Early adoption is permitted for any entity that has adopted ASU 2017-12.

If an entity chooses to early adopt the guidance in an interim period, the cumulative-effect adjustment for adopting the amendments related to accounting for fair value hedge basis adjustments is reflected as of the beginning of the fiscal year that includes that interim period (that is, the initial application date).

9.3 Transition

The guidance that allows designating multiple hedged layers for a single closed portfolio is applied prospectively as of the date of adoption.

The guidance on the accounting for fair value basis adjustments is applied on a modified retrospective basis. That is, if an entity had allocated the fair value basis adjustment in a last-of-layer hedge to the individual assets in the closed portfolio before adopting the guidance, it would reverse the effect of this allocation through a cumulative-effect adjustment to the opening balance of retained earnings and the balance sheet line items (as appropriate) as of the date of adoption. Entities have the option to adopt the disclosure guidance in ASC 815-10 prospectively from the date of the initial application or retrospectively for each period presented.

9.4 Reclassifying debt securities from held to maturity to available for sale

The transition guidance in ASU 2022-01 allows entities to reclassify one or more debt securities to available for sale from held to maturity (HTM) if these debt securities (1) are hedged under the portfolio layer method and (2) were classified as held to maturity before the adoption of the new guidance.

Entities have 30 days after the date of adoption to reclassify debt securities and include them in one or more closed portfolios that are designated in a portfolio layer method hedge.

An entity is required to provide the disclosures in accordance with ASC 320-10-50-10 for reclassified debt securities in the period of reclassification. That reclassification, in and of itself, would not call into question the entity's assertion at the most recent reporting date that it had the intent and ability to hold to maturity those debt securities that continue to be classified as held to maturity.

For an entity that has not yet adopted the amendments in ASU 2016-13,³¹⁴ any unrealized gain or loss on the reclassified debt security at the date of reclassification will be recorded in accumulated other comprehensive income.

Entities that have adopted the amendments in ASU 2016-13 need to do the following for each reclassified debt security:

- ▶ Reverse in retained earnings any allowance for credit losses previously recorded on the HTM debt security at the date of reclassification
- ▶ Reclassify the debt security to the AFS category at its amortized cost basis (which is reduced by any previous write-offs but excludes any allowance for credit losses)
- ▶ Determine whether an allowance for credit losses is necessary by following the guidance in ASC 326-30, and if it is, record that allowance in retained earnings at the date of reclassification
- ▶ Report in accumulated other comprehensive income any unrealized gain or loss on the debt security at the date of reclassification, excluding the amount recorded in the allowance for credit losses

How we see it

When adopting the amendments, entities are allowed to reclassify debt securities to available for sale from held to maturity, which is consistent with the transition provided in ASU 2017-12.

The FASB's rationale in both instances was that entities may have decided to classify certain debt securities in the HTM category rather than the AFS category because it was difficult to hedge these instruments under the hedge accounting guidance that existed at the time the securities were acquired (i.e., before the last-of-layer method was created through ASU 2017-12 or before the latest amendments).

However, entities should be aware that the requirements to reclassify HTM securities under the transition guidance in the amendments are more restrictive than those under ASU 2017-12. Under the transition guidance in ASU 2017-12, HTM securities could be reclassified as AFS as long as the security was eligible to be hedged under the last-of-layer method. The transition guidance in the amendments instead requires that an HTM security be hedged under the portfolio layer method upon reclassification (i.e., the security must be included in a closed portfolio that is designated as a portfolio layer hedge).

While the guidance in ASC 815-20-65-6(h)(2) clarifies that neither a minimum amount of the closed portfolio nor a minimum hedge period must be designated in the hedging relationship that includes the reclassified debt security, an entity should be cautious of designating hedging relationships that could be seen as nonsubstantive or inconsistent with its overall risk management policy.

9.5

Disclosures

An entity is required to disclose the following information in the period of adoption, as well as in each interim and annual financial statement of the fiscal year of adoption:

- ▶ The nature of and reason for the change in accounting principle related to accounting for hedge basis adjustments
- ▶ The effect of adoption on any line item in the statement of financial position, if material, as of the beginning of the first period of application, though presentation of the effect on financial statement subtotals is not required. The cumulative effect of the change on retained earnings or other components of equity in the statement of financial position as of the beginning of the first period of application.

³¹⁴ ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*.

A Derivatives and hedging primer

A.1 Introduction

This primer will introduce you to some of the reasons why entities adopt hedging strategies, the hedgeable exposures and risks that entities face and some common hedge strategies that are used to manage these exposures and risks.

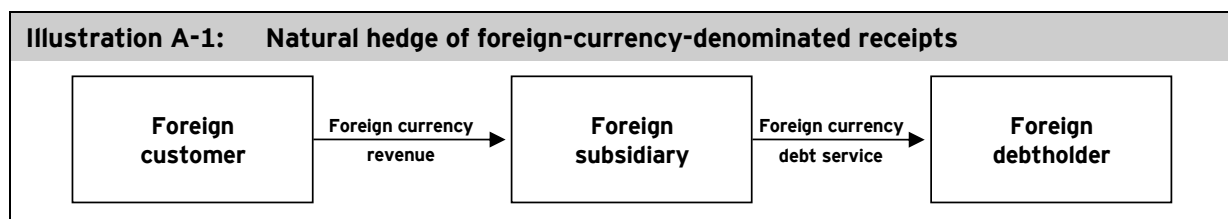
A.2 Why do entities hedge?

Entities enter into hedging transactions for a variety of reasons. An important reason to hedge exposures is to eliminate variability and volatility in financial performance, and/or to eliminate variability in cash flows over time. Consistent and predictable financial performance is important to the investment community, as analysts and investors tend to reward entities with stable, upward trends in earnings. Entities like to avoid surprising the investment community; volatility in earnings implies risk. Earnings volatility may depress stock prices and/or increase borrowing costs, which management clearly wants to avoid. Effective hedging programs also allow management to more accurately predict financial performance and manage the investment community's expectations. The ability to accurately forecast revenues and associated expenses allows management to budget effectively and, to the extent that the budgetary process provides inputs to management's estimates of overall performance, financial performance will be more predictable.

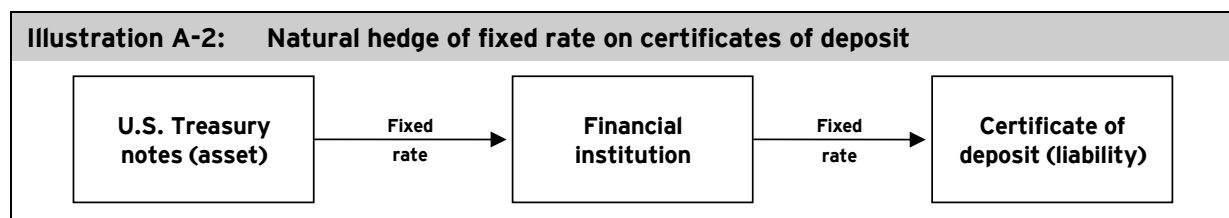
As discussed below, certain hedges attempt to provide symmetrical returns (where the hedge is designed so that any gains or losses related to the hedged item are offset by gains or losses on the derivative) while other programs seek to provide asymmetrical returns (where the hedge eliminates a downside exposure while allowing the entity to experience favorable market changes related to the hedged item). Symmetrical hedge strategies are designed to "lock in" an entity's returns while asymmetrical hedge strategies can be analogized to insurance, where the hedge acts as protection against losses.

A.3 Does an entity have to use derivatives to hedge its exposures?

Entities often modify their exposures to a variety of risks without using derivatives by changing their capital structures or entering into nonderivative transactions; transactions of this type are typically called "natural hedges." For example, a foreign subsidiary of a US-based entity may opt to borrow in the foreign currency, thereby matching cash inflows (foreign-currency-denominated revenues) with cash outflows (foreign-currency-denominated debt service). If the foreign subsidiary borrowed in US dollars rather than the foreign currency, its cash flows would be sensitive to changes in the foreign currency exchange rate. If the dollar strengthened against the foreign currency, additional amounts of foreign currency would be required to satisfy the subsidiary's US dollar-denominated obligations. (See Illustration A-1).

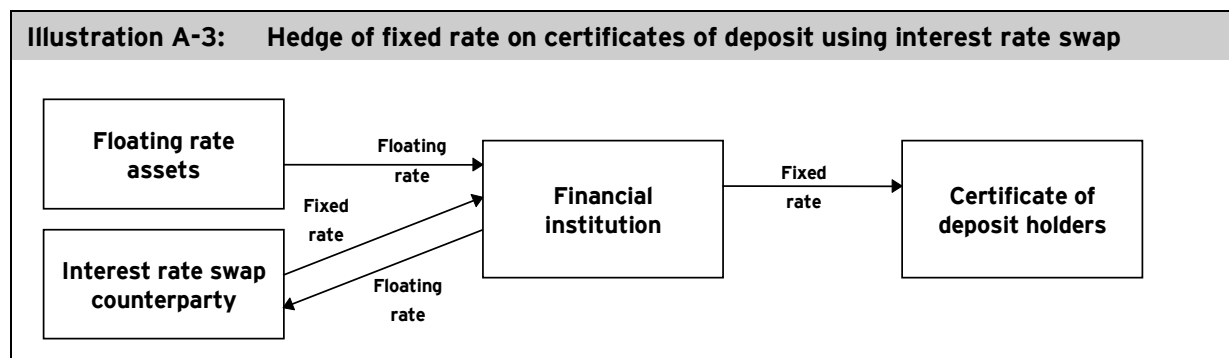


Another example is a financial institution that enters into natural hedges to offset exposures that result from its operations. Because of the wide variety of products offered by typical large financial institutions, such as commercial lending, mortgage lending, deposit taking and capital markets activities, these institutions must constantly assess the level to which their positions and balances have created exposures and the types of transactions that can be entered into to hedge these exposures. A simple example of this type of natural hedge would be an investment in a one-year US Treasury note as a hedge of a one-year certificate of deposit liability. If the certificates of deposit were not hedged, the financial institution would be exposed to the risk of changes in rates; it is obligated to pay a fixed rate to the holders of the certificates of deposit. If the one-year investment were instead a six-month investment, the bank's interest margins would be reduced for the second six-month period if rates declined. Alternatively, if the one-year investment were instead a two-year investment, the bank's interest margins would be reduced for the second year if rates increased. (See Illustration A-2).



There will be situations where management would like to hedge naturally but is unable to do so for a variety of reasons. Often, hedged exposures will change rapidly, and management may have to adjust its assets or liabilities frequently to obtain the desired offsets. Additionally, there can be delays related to establishing these on-balance sheet positions and the entity may not be able to enter into the transactions timely enough to establish an effective "natural" hedge.

When an entity cannot efficiently hedge its positions naturally, by modifying its cash flows or balance sheet position, management will often use derivatives to accomplish their objectives. Derivatives are often used to fine-tune risk exposures because they are cost efficient to execute and can be tailored to achieve a desired result. Suppose the financial institution that issued certificates of deposit held floating rate assets (e.g., credit card loans indexed to the prime rate) instead of US Treasury notes and was therefore exposed to the risk of falling interest rates if it left this exposure unhedged. Management could sell its floating rate assets and purchase one-year assets to hedge its fixed-rate obligation but might find this uneconomical. As an alternative, the entity could enter into an interest rate swap to accomplish a similar result. In this situation, the entity wants to receive fixed-rate earnings to meet its interest payment obligations to the holders of the certificates of deposit, so it enters into a pay floating-rate and receive fixed-rate swap. The fixed-rate receipts related to the swap will offset the fixed-rate outflows related to the certificates of deposit and the entity will have hedged this exposure. If the fixed rate received on the swap is in excess of the rate paid to the certificate of deposit holders, the entity will have locked in a "spread" or margin. (See Illustration A-3).



A.4 Does an entity always want to hedge its exposures?

Management doesn't have to hedge its exposures; it can decide to retain a component of the natural exposure that is created by its operations. For example, the financial institution that naturally had one-year liabilities and shorter-term assets might want to retain its exposure to the variability of interest rates if management thought that rates were rising. If rates do rise, variable rate assets held by the entity will generate additional returns while the rates paid to the holders of the certificates of deposit will not change. By opting not to hedge its exposure, management would be "taking a view" on the direction of interest rates.

Alternatively, management can also introduce an exposure by using a derivative. If the entity had a naturally hedged position (e.g., a balance sheet with both fixed-rate investments and fixed-rate debt), management could enter into a pay-fixed interest rate swap to create the same exposure as if it had floating-rate assets. Hedge accounting is permitted for derivatives that qualify under certain hedging criteria.

Derivatives with no hedging purpose are recorded on the entity's financial statements at fair value with changes in fair value reflected in current period earnings. One example is an entity with no foreign currency exposures which takes a view that a given currency will lose value against the US dollar and enters into a forward transaction to sell a foreign currency for US dollars based on the current contract rate.

A.5 What are the most common hedged exposures and risks?

ASC 815 draws a distinction between hedged exposures and hedged risks. The guidance identifies the nature of exposures that may be designated as being hedged as follows:

- ▶ Exposure to changes in the fair value of a recognized asset or liability or unrecognized firm commitment that are attributable to a particular risk (see chapter 5)
- ▶ Exposure to variability in the cash flows of a recognized asset or liability or of a forecasted transaction that is attributable to a particular risk (see chapter 6)
- ▶ Exposure to foreign currency variability related to net investments in foreign operations as well as three other specific situations (see chapter 7)

These categories address the nature of the exposure but not the risk that can be hedged. ASC 815 identifies several risks to which entities are exposed in the course of their activities, including interest rate, foreign exchange, market price, credit, liquidity, theft, weather, health, catastrophe, competitive and business cycle risks.

Through its definition of a derivative, the guidance addresses risks typically hedged with financial instruments while excluding other types of contracts. For example, traditional insurance products and contracts related to climatic, geographic or other physical variables are excluded from ASC 815's scope. There will be a variety of products and strategies designed to protect entities from exposures related to the risks identified above; they just won't all be afforded hedge accounting treatment or be within the scope of the guidance.

Even if the guidance doesn't allow hedge accounting for a particular risk, or a given contract is scoped out of the guidance, there still may be valid exposures from which management may want to protect itself. For example, an entity might have a significant exposure to a major hurricane in a given region. The entity could protect itself against the exposure by purchasing an insurance product or a weather derivative. Either approach could insulate the entity from the risks it faces. However, both casualty insurance contracts as well as a derivative that would compensate the entity based on wind speed or severity of the hurricane are excluded from the scope of ASC 815.

A.6 What are the most common types of derivatives?

The following gives an overview of the most common types of derivatives. ASC 815 identifies derivatives through distinguishing characteristics rather than by listing specific contract types. The characteristics must be applied to determine whether the contract is a derivative as defined by ASC 815.

Contracts identified as OTC are negotiated between two parties (typically an end user and an investment bank) and may be customized to address an end user's specific exposures. OTC contracts carry credit risk, as there is risk of nonperformance under the contract by the counterparty to the transaction. Contracts identified as exchange-traded are generic contracts transacted through a regulated exchange. Exchange-traded contracts carry less credit risk and increased liquidity as compared with OTC contracts; however, they cannot be specially tailored for specific situations.

Common derivatives include:

- ▶ *Forwards*: OTC contracts to purchase or sell a specific quantity of a financial instrument, a commodity or a foreign currency at a specified price determined at the outset, with delivery or settlement at a specified future date. Settlement is at maturity by actual delivery of the item specified in the contract, or by a net cash settlement.
- ▶ *Interest rate swaps and forward rate agreements*: OTC contracts to exchange cash flows as of a specified date or a series of specified dates based on an agreed-upon notional amount and agreed-upon fixed and floating rates.
- ▶ *Futures*: exchange-traded contracts similar to forwards. Futures settle in cash every day, via postings to the parties' margin accounts maintained at a futures broker. Futures are most commonly settled through an offsetting, "reversing" trade rather than by delivery of the underlying item or cash settlement.
- ▶ *Options*: OTC and exchange-traded contracts that give the purchaser the right, but not the obligation, to buy (call option) or sell (put option) a specified quantity of a particular financial instrument, commodity or foreign currency, at a specified price (strike price), during or at a specified period of time. The purchaser of the option will pay the seller (writer) of the option a premium to compensate the seller for the risk of payments under the option. Option premiums will vary depending on whether the option is in the money or out of the money, the volatility of the underlying and the time period over which the option can be exercised. An example of an in-the-money option would be a call option to buy a security for \$30 per share when it is currently trading at \$35. The option would be in the money by \$5 or have \$5 of intrinsic value. In addition to intrinsic value, options also have time value related to the volatility of the underlying and the time until the option's expiration. The more volatile the underlying and the greater the time period until expiration, the greater the likelihood that the option will wind up in the money. There are two major types of options: (1) American-style, which can be exercised at any date throughout the period of the option contract, and (2) European-style, which can be exercised only at the expiration of the option contract. A collar transaction is a combination of a purchased option and a sold option; an entity entering into a collar (e.g., selling a call and purchasing a put) will give up the upside gains related to the underlying in return for protection from downside losses.
- ▶ *Caps and floors*: OTC contracts often referred to as interest rate options. An interest rate cap will compensate the purchaser of the cap if interest rates rise above a predetermined rate (strike rate) while an interest rate floor will compensate the purchaser if rates fall below a predetermined rate.

There are many variations of the contracts described above, such as *swaptions*, which are options to enter into swaps, and *cancelable swaps*, which are swaps with embedded options that allow the holder to exit the swap contract in certain situations.

A.7 What are some common derivatives-related hedge strategies?

The following tables identify simple strategies entities use to hedge fair value and cash flow exposures related to interest rates, commodity prices, foreign exchange rates and market prices.

A.7.1 Interest rate risk

Fair value

Fixed-rate debt is the hedged item:

If the entity has fixed-rate debt and wishes to have variable interest expense or to be able to repay the debt without incurring a loss, it could use interest rate swaps to convert the fixed-rate exposure on its debt to floating-rate exposure. The interest rate swap used would require the entity to pay the counterparty a floating rate in exchange for a fixed rate. The entity would therefore substitute the floating rate paid to the swap counterparty for the fixed rate required to be paid to its debtholders.

Fixed-rate asset is the hedged item:

If the entity holds fixed-rate assets (e.g., a US Treasury portfolio) and desires a floating rate of interest income or protection from declines in the value of the assets if interest rates increase, the entity could enter into an interest rate swap where it pays a fixed rate and receives a floating rate. The entity would therefore substitute the fixed receipts from the assets with its floating receipts from the swap and will thereby be protected from rising rates.

Cash flow

Floating-rate debt is the hedged item:

If the entity has floating-rate debt, it is exposed to rising interest rates and could use interest rate swaps to convert this floating-rate exposure on its debt to a fixed-rate exposure. The interest rate swap used would require the entity to pay the counterparty a fixed rate in exchange for a floating rate. The entity would therefore substitute the fixed rate paid to the swap counterparty for the floating rate required to be paid to its debtholders.

Floating-rate asset is the hedged item:

If the entity holds floating-rate assets (e.g., a floating rate loan portfolio) and desires a fixed rate of interest income or protection from decreases in interest rates, the entity could enter into an interest rate swap where it pays a floating rate and receives a fixed rate. The entity would therefore substitute the floating receipts from the assets with its fixed receipts from the swap and will thereby be protected from falling rates.

Anticipated issuance of fixed-rate debt is the hedged item:

Management can use a contract known as a "treasury lock" which will "lock in" today's treasury rate for the period that the debt will be outstanding. Under the treasury lock, the entity will be compensated by the counterparty should the reference rate rise from the date of the treasury lock transaction through the date of the anticipated debt issuance and will compensate the counterparty to the extent that the reference rate falls.

A.7.2 Commodity price risk

Fair value

Fixed-price commodity purchase contract is the hedged item (normal quantities for normal period):

The entity has entered into contract with a supplier to purchase a required commodity at a fixed price. However, the sales price of the finished good to be manufactured from the commodity will reflect changes in the value of the commodity. Therefore, the entity could enter into a forward contract to sell the commodity at a predetermined fixed price at the delivery date.

Fixed-price commodity sales contract is the hedged item (normal quantities for normal period):

The entity has entered into a contract with a customer to sell commodities at fixed price on a future delivery date. Management may believe that prices are rising or that its cost to produce or purchase the commodity will fluctuate through the delivery date. The entity could enter into a forward contract to purchase the commodity at a predetermined fixed price as of the delivery date.

Cash flow

Floating-price commodity purchase contract is the hedged item (normal quantities for normal period):

The entity has entered into a contract with a supplier to purchase a required commodity at the market price on the delivery date and wants to fix the price that it will pay. Management may believe prices will rise through the delivery date or that changes in the price of the commodity cannot be passed through to its customers and wants to lock in its margins. The entity could enter into a forward contract to purchase the commodity as of the delivery date at a predetermined fixed price.

Floating-price commodity sales contract is the hedged item (normal quantities for normal period):

The entity has entered into a contract with a customer to sell commodities at the market price on a future delivery date. Management may believe that prices are falling or that its cost to produce or purchase the commodity will be fixed through the delivery date. The entity could enter into a forward contract to sell the commodity at a predetermined fixed price as of the delivery date.

A.7.3 Foreign currency risk

Fair value

Fixed-price foreign-currency-denominated purchase contract is the hedged item:

The entity has entered into a contract (a firm commitment) with a foreign supplier to purchase materials at a fixed price denominated in a foreign currency. Management may believe that the dollar will weaken through the period through the delivery date or that the entity will not be able to pass on changes in the dollar cost of materials to its customers. The entity could enter into a contract to buy the foreign currency forward on the delivery date at a fixed or contract price, effectively locking in today's exchange rate.

Cash flow

Anticipated transaction denominated in a foreign currency is the hedged item:

The entity anticipates a purchase of supplies from a foreign supplier at an exchange rate to be determined as of the date of the purchase transaction. If foreign exchange rates rise through the period until the purchase date, the dollar-denominated cost of the transaction will rise. The entity could enter into a transaction to purchase the foreign currency forward on the anticipated purchase date at a fixed or contract price, effectively locking in today's exchange rate. The entity would remain exposed to changes in the price of the supplies themselves, but not to the impact of currency fluctuations.

Note that some products (e.g., interest rate swaps and forward contracts) require the entity to give up upside returns in return for protection from downside exposure. For example, increases in the value of fixed-rate financial assets resulting from declining interest rates will be offset by the decreases in the value of a pay-fixed interest rate swap that was entered into to hedge exposure to rising rates. This type of hedge is called a symmetrical hedge, as gains on the hedged item are offset by losses on the derivative. Typically, derivatives that provide symmetrical returns have no value upon inception. The derivative will be priced at inception so that the expected value of positive cash flows will exactly match the expected value of negative cash flows. For example, the fixed rate of an interest rate swap is adjusted so that the net present value of fixed cash payments and the net present value of expected floating rate receipts net to zero at inception.

Other products allow the entity to experience the upside related to the hedged item, while providing protection from downside exposures. For example, an entity may buy a put option on a commodity it holds. This put option would specify the strike price at which the entity could sell the commodity to the counterparty to the option. If the price of the commodity rises, the entity does not have to compensate the counterparty to the option for the increases in market prices. The counterparty was compensated by the option premium that it received upon inception of the option contract. Typically, derivatives that provide asymmetrical returns have a value upon inception related to the likelihood of cash receipts under the option.

B Overview of the basic concepts of regression

B.1 Basic concepts of regression

Regression is a technique for determining whether and by how much a change in one variable (the independent variable) will result in a change in another variable (the dependent variable). Traditional linear regression permits the prediction of an unknown variable based on the assembling of data from one or several known variables.

Consider a simple single independent variable example. A tire manufacturer wants to hedge the fair value of its tire inventory of steel-belted radial tires with a forward contract to sell rubber at a fixed price. The production of radial tires involves physical components such as rubber and steel, as well as labor and allocated overhead. As noted earlier in section 4.2.2, the entity cannot hedge rubber as an ingredient in a fair value hedge of its tire inventory. If it intends to use a rubber-based derivative in such a hedge, it must test the hypothesis that changes in the spot price of rubber are related to changes in the market price of steel-belted radial tires. Implicit in this assumption is that changes in steel prices and in labor and overhead are minor influences.

A regression analysis of the relationship between rubber and tires would begin by plotting historical price data³¹⁵ for both variables on a traditional x/y axis and observing whether a pattern emerges. (Care should be used to make certain that the tire and rubber variables are expressed in unit equivalent terms, such as measuring the price of the number of units of rubber necessary to make one tire.) If there is a relationship, the plotted points would tend to form a “channel” running diagonally across the graph. If there is a one-for-one relationship, the channel would angle up across the graph at a 45° angle (equidistant between the x- and y-axes) and originating at zero (the intersection of the x- and y-axes).

Regression analysis graphs a line through the swarm of data, using least squares analysis to draw the “best fit” line that minimizes the total distance of the plotted points from the line. Some regressions will indicate a wider scatter of data points around the regression line than others; these wider scatters indicate a relationship between the variables that is less strong than a regression with a narrow scatter.

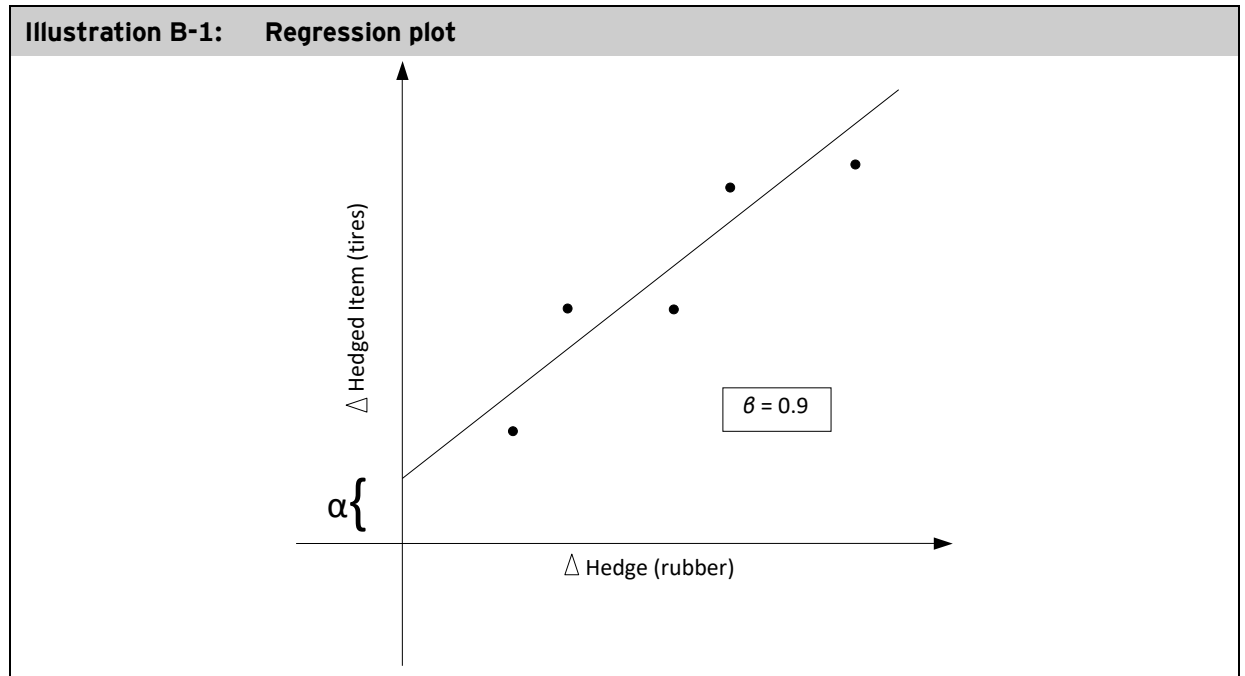
The two-variable regression line is represented by the algebraic formula:

$$y = a + bx + e$$

where y is the dependent variable, x is the independent variable, a is the point of intersection on the y-axis (or the price of tires attributable solely to the non-rubber components), b is the slope of the regression line and e is the residual, or error term. In our example, a possible result might be (this is not intended to be indicative of the real-life relationship between tires and rubber, but is for illustrative purposes only):

$$\text{Change in price of tires} = \$0.05 + 0.9 (\text{change in price of rubber}) + 0$$

³¹⁵ Depending on the facts and circumstances, this historical price data might consist of spot price observations or forward price observations. In addition, it may be more appropriate to plot data of *changes* in historical spot or forward observations.



This regression would predict that a \$1 increase in the price of rubber would result in a \$0.95 increase in the price of tires. A \$5 increase in the price of rubber would result in a \$4.55 increase in the price of tires.

The regression coefficient, also known as *beta*, is 0.9 in the above equation, and is also commonly known as the *slope* of the regression line (the change in y for a given change in x). This coefficient represents an estimate of the sensitivity of changes in the price of tires relative to changes in the price of rubber. A slope or *beta* of 1.0 would have yielded a regression line equidistant between the x -axis and y -axis at a perfect 45-degree angle. The above equation, with a slope of 0.9, indicates that the full amount of an increase (or decrease) in the price of rubber is not passed through to the final product (the radial tires). This coefficient represents the optimal hedge ratio for the rubber-based forward, indicating the proportions of rubber-based derivative relative to the hedged item to use in the hedging relationship in order to maximize dollar offset and achieve a highly effective hedge.

Because the relationship between the change in rubber price and the change in tire price is not one-for-one, the hedging relationship would include more rubber derivative on a unit equivalent basis ($1.0/0.9$, or 1.11 more units of rubber forwards). This is an important concept that should not be ignored in transferring a regression result to the design of a hedging relationship.

The “best fit” for the regression line resulted in the line crossing the y -axis at \$0.05 in the above equation. This value (a in the above equation) is known as the *y-intercept*. The presence of this y -intercept indicates a difference in the tire/rubber relationship for small changes in the price of rubber. For example, a \$0.10 increase in the price of rubber correlates to a \$0.14 increase in the price of tires, but the y -intercept explains \$0.05 of this increase, a large percentage of the total increase when there are small changes such as this. The y -intercept, which theoretically captures the effects of non-rubber variables (e.g., labor, overhead) in the equation, plays a more prominent role in the relationship at low levels price changes.

In contrast, as noted above a \$5 increase in the price of rubber correlates to a \$4.55 increase in the price of tires, and at this level of price change the \$0.05 y -intercept plays only a minor role in the regression relationship. A large y -intercept could be problematic in translating a regression equation to an actual hedge design, in that it represents a portion of the change in value of the hedged item (tires) that is not predicted by changes in the value of the independent variable (rubber).

The error term e represents the distance between the regression line itself and an individual data point. In a valid regression, the error terms should have constant variances and be randomly distributed. This concept will be discussed further later in this section.

It is important to realize that the mere ability to draw a regression line to indicate a relationship between changes in the price of rubber and changes in the price of tires does not mean that the relationship is a strong or a reliable predictor of a highly effective hedge. As noted above, a tight scatter of points around the regression line indicates a strong relationship. In contrast, if a wide channel is needed to “scoop in” the points around the regression line, the relationship is less strong. The regression line is essentially the “mean” around which there is a standard deviation, or the standard error of the estimate.

In the example above, if the standard error of the estimate were 0.6, this means that approximately 68% of the time (one standard deviation)³¹⁶ the actual change in the price of tires would fall within 0.6 of the value of the change in price of tires calculated from the change in the price of rubber (assuming the distances in observed tire and rubber data from the regression line are normally distributed). For example, the regression equation predicts that a \$5 increase in the price of rubber will correlate to a \$4.55 increase in the price of tires. If the standard error of the estimate were 0.6 and if the observed increase in the price of rubber were \$5, the regression would predict that 68% of the time, the price of tires would be expected to increase anywhere in a range of \$3.95 to \$5.15 (\$4.55 +/- \$0.60) for a given \$5.00 increase in the price of rubber.

Note that this constitutes a predicted dollar offset, after adjusting for a hedge ratio of 0.9 for the rubber-based forward, of 87.8% [$\$3.95 / ((0.9)(\$5.00))$] to 114.4% [$\$5.15 / ((0.9)(\$5.00))$] 68% of the time. (Note that the lack of perfect symmetry around 100% is caused by the y-intercept value of \$0.05.) It is also possible to calculate a standard error of the estimate for two standard deviations, which would quantify the expectation for changes in the price of tires 95% of the time.

The tightness of the distribution around the line is conceptually a representation of the likelihood of achieving a high level of effectiveness. That is, the closer to the line the actual result is, the more effective the relationship will be. There are two measures of the dispersion of the “scattered” observations around the mean. These measures are not derivable from the regression equation itself, but rather help to evaluate the regression equation that has been “fitted” to the scatter diagram.

The *coefficient of correlation*, r , is an index number that indicates the extent to which two variables are related. If $r = 1.0$, the value of the dependent variable (change in the price of tires) can be perfectly predicted from a knowledge of the value of the independent variable (change in the price of rubber). If $r = 0$, there is no predictive relationship at all between the two variables. If $r = -1.0$, the value of the dependent variable can be perfectly predicted by the value of the independent variable. However, the relationship is inverse.

The *coefficient of determination*, *R-squared*, is the percentage of the variance in y (i.e., changes in the price of tires) that is “explained” by x (i.e., changes in the price of rubber). It is the square of the coefficient of correlation. R-squared is a measure of the error that is eliminated by use of the regression model by comparing the result that the regression model predicts with a result that could be obtained by simply observing the variance of y around its mean. For example, one way to predict the change in the value of tires for a defined time horizon is to simply guess that the change in value will equal the *mean* of all the historical observations of the change in value of tires. One would look to the variance of the tire price change observations around this mean to estimate how wrong this guess might be.

³¹⁶ In a normally distributed set of numbers, approximately 68% of the numbers will fall within one standard deviation of the average. Likewise, approximately 95% of the numbers will fall within two standard deviations of the average, and approximately 99% will fall within three standard deviations.

But now suppose a regression equation is added as a predictor, and one can change one's guess about the change in the price of tires now that there is information available about the change in the price of rubber. As noted earlier, the standard error of the estimate measures how wrong this guess could be. If the regression analysis is a more successful predictor of the value of y compared with simply guessing the mean of y , the extent of one's "guessing error" has been reduced. *R-squared* measures the extent to which that error has been reduced. The error remaining after the regression has been run divided by the original error (the original variance around the mean) is the fraction of the error removed by the regression model. The higher the fraction, the greater the error has been reduced by running the regression. If $R\text{-squared} = 0.95$, then 95% of y 's movement can be predicted by the regression equation. *R-squared* is a type of "percentage" measure indicating the proportion of the fluctuations, or "scatter," in y that can be explained by movements of x .

It should be clear from this discussion that a high value for *R-squared*, and r for that matter, is a desirable result from a regression analysis. They indicate how strongly the regression equation that links the two (or more) variables is expected to hold in various scenarios. As it pertains to hedge accounting, the key question for entities to understand is how high these values must be to assess an associated hedge as "highly effective." The discussion in section 4.8.1 focused on a "correlation ratio," which is another term for a dollar-offset calculation. However, it would not be appropriate to assume that a hedge result with an *R-squared* of 0.80 predicts that a derivative would provide an 80% dollar offset for changes in value of the hedged item.

In a 1996 speech, the SEC staff provided registrants with some insight about how the staff would evaluate regression analysis, which at the time was being used to support hedge accounting under Statement 80. The SEC staff was evaluating a regression analysis with a correlation coefficient of -0.79 , and an *R-squared* of 63%. In the speech, it was stated that the derivative contract with an *R-squared* of 63% indicated that 63% of the historical returns to the underlying asset could have been offset by the derivative, and that if past macroeconomic factors are essentially repeated in the future, at best, the derivative can only be expected to offset 63% of the gain or loss on the underlying. The SEC staff member went on to say that he believed that a 63% offset was not a sufficiently high level of offset to justify hedge accounting.

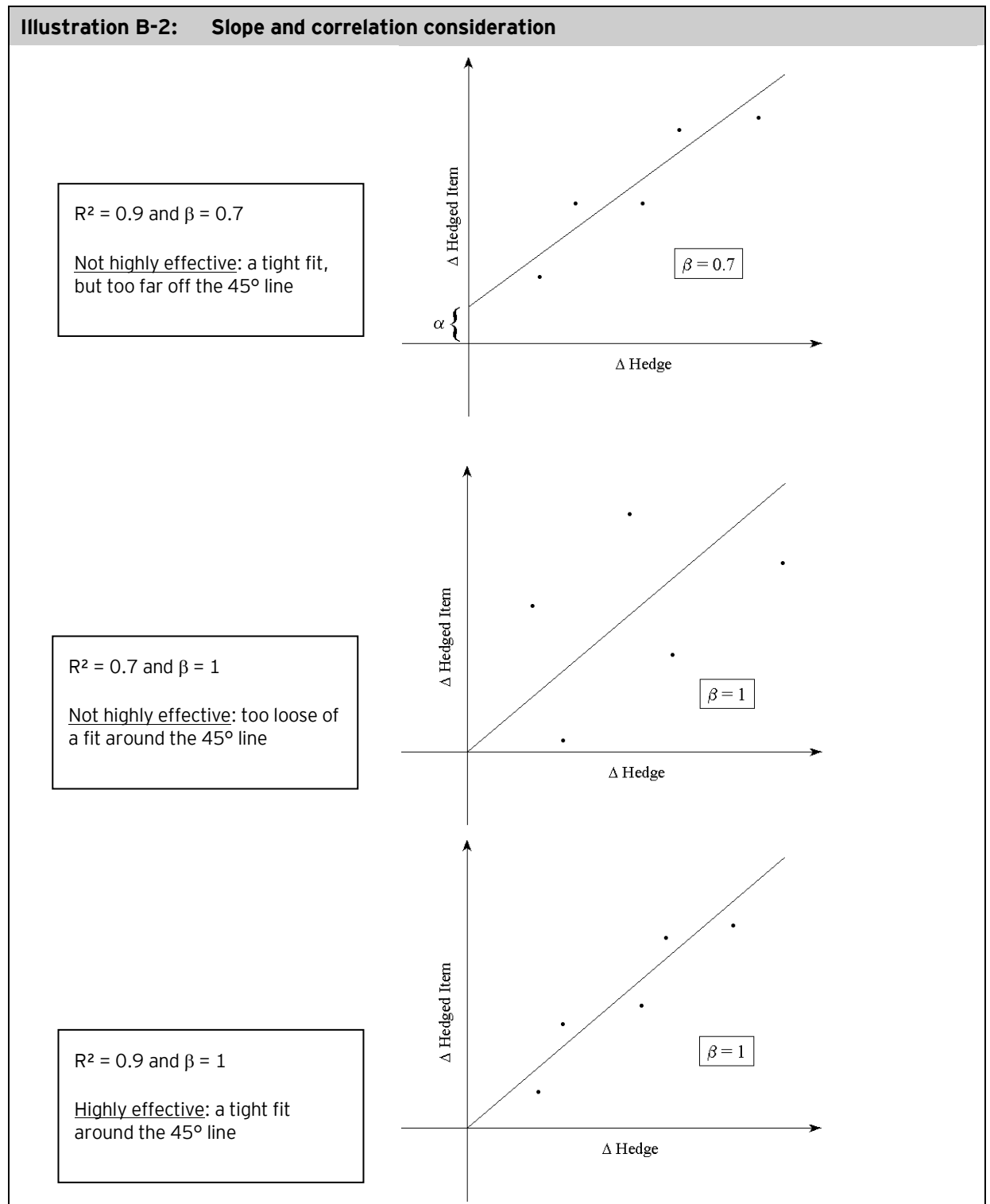
While we agree with the assessment of the 63% offset as not being sufficient, the *R-squared* of 63% actually refers to the percentage of error reduction achieved by running a regression equation versus predicting a future value by its historical mean.

In this same speech, the SEC staff addressed whether there was a particular *R-squared* threshold that would allow registrants to apply Statement 80 hedge accounting. While refraining from drawing a bright line, the SEC staff noted that "some CPA firms" have used a minimum *R-squared* of 80% as guidance, and that the staff had no objection to that guidance. The SEC staff also noted that it may question whether hedge accounting was appropriate if *R-squared* were less than 80%. (Note that in order to achieve an *R-squared* of 80%, the coefficient of correlation would have to be greater than 0.9 or -0.9 .)

Although we believe that the guidance indirectly provided by the SEC regarding *R-squared* may have been based on a faulty premise that confused dollar offset with a statistical measure, we support the view that a high level of *R-squared* must be achieved to qualify for hedge accounting. In practice, the view that *R-squared* must be 80% or higher has become generally accepted and has not been challenged since the emergence of Statement 133.

In this same speech, the SEC staff also commented that correlation at hedge inception is "a judgment call based on more than just this single number." We agree with this notion as a fundamental regression concept that the *R-squared* statistic is only relevant for the *beta coefficient* in the regression equation. A regression can have a perfect *R-squared* of 100%, but if its *beta* is 0.7 and the hedge ratio is 1.0, the hedging relationship will not be highly effective as this results in a dollar offset of only 70%.

The following graphs illustrate this point (assume the hedge ratio is 1.0):



We also believe that the regression must be evaluated for its predictive validity, and in some cases, its results may be rejected as inconclusive. The next section discusses these concerns.

B.2

A warning about statistics

Some might say that it is possible to “prove” almost anything with statistics, but this is only the case if the statistical techniques are misused (either deliberately or by ignorance) to serve nonscientific motives. Consider the following excerpt from *Quantitative Techniques for Financial Analysis*, Revised Edition, by Jerome L. Valentine, CFA, and Edmund A. Mennis, CFA:

“Statistics as a discipline does not permit the introduction of self-interest in its method. ... When statistical manipulations are reduced to tools to be used to ‘back up’ an untenable position, the misrepresentation is not only unethical from the standpoint of the financial analyst, it is an act of dishonor in man’s attempt to develop a scientific view of the world.”

This section discusses the use of statistics to predict that a hedge will be highly effective. But first consider an easier concept with which most people are familiar: polls to predict whether a particular candidate will win an election. The predictive ability of a given poll is a function of how representative the data gathered is of the actual people who go to the polls on Election Day. Consider the inherent flaws in relying on the unrepresentative data underlying the following exaggerated (for illustration purposes) examples:

- ▶ A late October 1984 poll of likely voters who reside in Minnesota predicts that Walter Mondale will be elected President in November 1984. (In reality, Minnesota is the only state the former vice president carried.)
- ▶ A poll surveying all voters over the age of 30 in early November predicts a Republican landslide. (15%-20% of likely voters have been unsampled.)
- ▶ A poll of senior citizens at an AARP convention predicts that the candidate who favors increasing the taxability of Social Security benefits will lose the election.
- ▶ A poll of kindergarten students the week before the 1992 election predicts that President George Bush will be re-elected to a second term. (Bill Clinton was the winner.)

Now consider the possible flaws in the following examples of financial and accounting data, which may not be as intuitive:

- ▶ A regression analysis run over five years of data indicates a strong relationship between changes in the prime lending rate and changes in SOFR over the five-year horizon. However, it is being used to predict that a hedging relationship using a prime-based swap to hedge the risk of changes in the SOFR OIS benchmark rate will be effective over a three-month period.
- ▶ A regression analysis supporting a hedge of heating oil purchases with a crude-oil-based derivative forecasted to occur over a six-month hedge horizon from October to April uses data obtained from year-round observations of heating oil and crude oil price changes.
- ▶ A regression analysis is used to predict the effectiveness of a hedge of the change in Variable A using a Variable-B-based derivative. The analysis compares historical observations of Variable A with Variable B and indicates a coefficient of determination (R-squared) of 0.93; however, a regression analysis of historical observations of the change in Variable A relative to the change in Variable B indicates an R-squared of 0.78.

The point of this discussion is to emphasize that regression analysis and any other statistical techniques that are used to support an assessment that a hedge is highly effective must be valid. A properly designed regression analysis to calculate R-squared must (1) employ relevant, appropriate data and (2) achieve the objective of measuring the changes in value of the derivative and the hedged item over a time horizon consistent with the length of the hedge horizon. With respect to the above examples, the regression analysis intended to predict whether a three-month hedge would be effective, used a time horizon (i.e., five years) that was inconsistent with the hedge being evaluated.

The regression analysis of the relationship of heating oil and crude oil did not give proper emphasis to the seasonal influences on the price of heating oil during the winter months, when the period being hedged included the winter. The regression analysis intending to predict whether the changes in the Variable-B-based derivative would be highly effective at hedging the changes in the value of Variable A relied on observations of price levels rather than price changes, which may produce a skewed result.

While entities may understandably have a desired result in mind when conducting the statistical analysis (i.e., they hope they will be able to assess the hedge as highly effective and achieve hedge accounting), they must nevertheless avoid the introduction of self-interest into the analysis and instead make an objective determination about whether the statistical analysis predicts a highly effective result, using all indicators available, including indicators that may invalidate the regression results. If the analysis does not predict a highly effective result, the entity may want to adjust its hedging relationship.

B.3 Establishing the predictive validity of the regression analysis

There can also be practical problems in developing a valid statistical analysis. As stated above, if the hedge horizon of the relationship being evaluated is nine months, the data being regressed should represent past observations of changes in value of the two variables over nine-month periods. Problems may surface due to the need to accumulate sufficient data to provide enough observations. For example, the desire to obtain 60 observations would require data covering 45 years. In addition, once time has passed and an entity is inside the nine-month hedge horizon and must revalidate its expectation of high effectiveness, nine-month data observations may not be as relevant as six-month data observations. Failure to gather enough observations or failure to acknowledge that the hedge horizon is always shortening may render the predictive ability of a regression analysis suspect.

One way to address the need to have enough observations is to use overlapping time intervals. Gathering 60 observations of nine-month change data would not require going back 45 years if overlapping nine-month periods could be observed. If the periods overlapped every month, only five years of back data might be necessary. For example, the first data observation might be for the historical period 1 January 20X1 to 30 September 20X1, and the second data observation might be for the period 1 April 20X1 to 31 December 20X1.

A serious drawback to this approach, however, is the danger of *autocorrelation*, a problem relating to the predictive ability of one variable with respect to the other variable. For example, a prediction error that occurs in May 20X1 tends to be associated with a similar prediction error in June 20X1. “Too low” predictions tend to be followed by another “too low” prediction in the next period; likewise, “too high” predictions tend to be followed by another “too high” prediction. Using overlapping intervals will tend to compound the autocorrelation error because those months will show up in multiple data observations.

As a practical matter to reduce the distortion caused by autocorrelation, an entity may want to use monthly or quarterly price changes as its input data rather than nine-month price changes. This practice represents the use of a tighter time horizon for the data input than the hedge horizon, which is generally a more conservative test. (However, statisticians warn about carrying the tighter time horizon too far, in that observations of *daily* price changes would provide no reliable indicator of performance over longer time horizons.)

For example, a hedge that can be predicted to be highly effective for a single quarter can likely be predicted to be highly effective for three successive quarters since effectiveness for a single quarter is a higher hurdle to achieve in that there is less time for temporary aberrations to “smooth out.” Using quarterly data also addresses the problem of the shrinking hedge horizon because it would continue to be a relevant statistical approach to hedge assessment as the quarters pass and the remaining time to the hedge maturity decreases.

Given the issues noted above, an entity may want to examine the coefficients derived from fitting the linear regression to the scatter points when determining the validity of its regression analysis. Statisticians place reliance on the *t-statistic* test of the regression coefficients instead of solely relying on R-squared. The *t-statistic* determines whether a coefficient and its variable are reliable enough. If the standard error of the estimate is small, the regression coefficient (the *beta*) is more likely closer to its “true value.”

The *t-statistic* measures the degree to which the difference in performance of two variables is attributable to chance and, therefore, not of predictive significance. The *t-statistic* compares the two means of observations for two variables and divides it by the standard deviation of the two variables. Said another way, the value of *t* is the difference in means divided by the “range” of difference that we would expect to result from taking random samples. If $t=1.0$, the difference would be the same as what might be expected simply on the basis of chance variations in the data. If $t=5.0$, however, the difference in performance of the two variables is five times the amount that might reasonably be attributed to chance – a much more significant result of predictive reliability.

The *t-statistic* by itself is of no use. The calculated value of *t* must be compared with the probabilities of error calculated in a “*t-table*.” Reproduced below is a portion of the *t-table*:

| Illustration B-3: Excerpt from t-table | | | |
|---|---------------------------|-------------|-------------|
| | Risk (probability) | | |
| Degrees of freedom | 0.10 | 0.05 | 0.01 |
| 1 | 6.314 | 12.706 | 63.657 |
| 5 | 2.015 | 2.571 | 4.032 |
| 10 | 1.812 | 2.228 | 3.169 |
| 20 | 1.725 | 2.086 | 2.845 |
| 25 | 1.708 | 2.060 | 2.787 |
| 30 | 1.697 | 2.042 | 2.750 |

Once a *t-statistic* has been calculated, it must be compared with the table to see whether the calculated value of the *t-statistic* is greater or less than the table value for a given risk tolerance. Knowing which row on the table to use is a function of the *degrees of freedom* in the statistical analysis. Degrees of freedom are related to the number of observations in the statistical analysis (counting all the variables) less the number of observations “destroyed” because of the formulas used to set up the statistical test. As a rule of thumb, the number of “destroyed” observations relates to the fact that the regression formula being evaluated uses two variables (*x* and *y*).

Assume an entity wanted to be 95% certain that it properly accepted a coefficient and its variable in a regression analysis as a reliable predictor. An entity that had calculated a *t-value* of 5.0 for a regression analysis using 32 observations of changes in rubber prices (variable *x*) and 32 observations of changes in tire prices (variable *y*) would look to the bottom row/middle column of the above table (30 degrees of freedom, or 32 observations less 2 variables – 1 independent and 1 dependent, and a risk of 0.05). The table *t-value* is 2.042, which is less than the calculated *t-value* of 5.0 – a desirable result.

The appropriate conclusion is that such a large value for *t* would not have occurred if the hypothesis that the behavior of the rubber variable was not a predictor of the behavior of the tire variable were true. Therefore, the regression result of tire versus rubber (whatever that might be) has predictive validity. Note the relationship of the column entries for each row. A higher degree of comfort (say, 99% certainty) carries higher *t-value* table amounts. We can note that our *t-value* is quite high in that our calculated value of 5.0 is also higher than the table amount for 99% certainty (risk of 0.01). Note that the *t-table* entries become smaller as more observations (and more degrees of freedom) are involved, indicating that larger samples have more power than smaller samples, as might be expected.

It is important to note that a high R-squared result that has unreliable coefficients assigned to the “predicting variables” will not reliably predict that a hedge will or will not be effective. A *t*-test can be utilized to evaluate how “good” the R-squared is, and whether a reliable prediction of hedge effectiveness is possible.³¹⁷

How we see it

We believe that the following characteristics should be considered when determining whether a regression analysis can support the continuation of hedge accounting³¹⁸ (even when a highly effective dollar offset is not achieved for a particular quarter):

- ▶ The regression uses appropriate and representative data for the hedging relationship being evaluated and has a minimum of 30 observations³¹⁹ of both variables.
- ▶ The regression examines the relationship between *changes* in the value of the derivative and the hedged item.
- ▶ The regression produces an R-squared that exceeds a pre-specified level, such as 0.80.
- ▶ The *standard error of the estimate* is used to determine the reliability (or the statistical significance) of the estimated coefficients, by calculating the *t*-statistic.
- ▶ The *t*-test is passed for the regression coefficient at a 95% confidence level or better.
- ▶ The *y*-intercept is evaluated to see whether it calls into question the usefulness of the regression equation; a high *y*-intercept when small changes in *x* are expected may be problematic.
- ▶ The regression results are appropriately related to the *actual* hedging relationship being evaluated by the user, and an appropriate dollar offset is projected for the relationship and evaluated based on the 80% to 125% standard.

B.4

Alternatives to regression analysis

ASC 815-20-35-2G indicates that statistical approaches other than regression analysis may be used. These might include some of the computational methodologies used for value-at-risk disclosures, such as historical simulation or the Monte Carlo simulation. These approaches address the problem of an insufficient number of data points because the data is simulated.

Many consultants have noted the problems of unwarranted reliance on regression results and may encourage entities to pursue other statistical approaches to assess hedge effectiveness. In addition, a statistical approach that is simpler than regression might suffice in certain situations, such as when the

³¹⁷ This section only addresses regressions involving a single independent variable. Multiple linear regressions would plot two or more independent variables and should reference the “F-test” rather than the “t-test.” The F-test, computed for each independent variable in the equation, tests the significance of each independent variable net of the impact of the other variables.

³¹⁸ At the December 2003 AICPA Conference on SEC Developments, the SEC staff indicated that the assessment of whether a hedging relationship is expected to be highly effective will be determined based on the facts and circumstances of that specific relationship. However, the staff believes that, at a minimum, certain regression outputs such as the coefficient of determination (R-squared), the slope coefficient and the *t*- or F-statistic should be considered when using regression analysis to assess whether a hedge is expected to be highly effective. Additionally, depending on the specifics of the hedging strategy, other regression outputs may also need to be considered. The staff expects that if registrants are utilizing statistical techniques to assess hedge effectiveness that they understand how to use and appropriately evaluate such techniques, which may necessitate the use of specialists.

³¹⁹ Fewer data points would be acceptable as long as the *t*-test is passed. As a general statement, larger samples of data have more predictive power than smaller samples and tend to increase the probability that the *t*-test will be passed. Use of 30 data points maximizes the possibility that the *t*-test will be passed at a 95% confidence level or better.

basis differentials are very minor or nonexistent and the only concern with respect to the dollar-offset method is the “law of small numbers” problem mentioned earlier in section 4.8.3.4.1. In these situations, an entity may be able to set up a dollar-offset calculation procedure that permits the consideration of the “notional base” against which the fair values or cash flows of the derivative and the hedged item are compared. (This approach has been referred to by academics as the “relative difference method.”)

An entity would then have to establish the “pass/fail” parameters for what would be considered “highly effective” under this type of calculation. The SEC staff has stated that it interprets the guidance to permit this type of approach, but only if the “pass/fail” parameters could be based on a statistical analysis, rather than an arbitrary cutoff. The goal of such an analysis would be to continue to justify a hedge as “highly effective” even when a poor dollar offset is achieved, but only because the overall dollar change in fair value of the derivative was negligible relative to the notional amount of the derivative. Under any statistical approach, however, we believe that it must be anticipated from the outset that over the full life of the hedge, a traditionally computed dollar offset is expected to be achieved between the derivative and hedged item.

C Implementation guidance relevant to insurers and insurance products (updated September 2022)

Introduction

ASC 815 provides an exemption from derivative accounting only for *certain* insurance contracts (as discussed in section 2.5.3). Insurers issue various types of contracts that are not covered by the scope exemption and, therefore, may be derivatives in their entirety or may contain embedded derivatives.

If an insurance contract contains an embedded derivative, it should be evaluated to determine whether the embedded derivative requires bifurcation under ASC 815. Examples of insurance contracts that may contain embedded derivatives requiring bifurcation include equity-indexed annuities, equity-indexed life insurance contracts, certain benefit guarantees, market-value-adjusted annuity contracts and dual-trigger insurance contracts. (Refer to sections C.1 and C.2 for additional discussion on these contracts.)

Once adopted, ASU 2018-12³²⁰ will significantly change how insurers account for long duration contracts. This guidance is effective for SEC filers, excluding smaller reporting companies, for fiscal years and interim periods therein beginning after 15 December 2022. For all other entities, it is effective for fiscal years beginning after 15 December 2024, and interim periods within fiscal years beginning after 15 December 2025. However, early adoption is permitted.³²¹

The guidance in ASU 2018-12 does not change the determination of whether a contract meets the scope exemption in ASC 815 for certain insurance contracts, or if a contract does not qualify for this scope exemption, whether it would be considered a derivative in its entirety. However, it will affect an entity's determination of whether certain insurance contracts contain embedded derivatives that require bifurcation pursuant to ASC 815.

Before adoption of ASU 2018-12

Historically, issuers applying the guidance in ASC 815 to insurance contracts that contain embedded derivatives encountered various practice issues that are not specifically addressed in the guidance. As a result, practitioners and auditors have had to apply significant judgment in interpreting this guidance when long-duration products such as universal life-type or investment contracts are sold with contract features that provide the policyholder with guaranteed benefits in addition to their account balance. When an insurer is obligated to cover any shortfall between the guaranteed benefits and the account balance, they are exposed to capital market risk.

These types of contract features often take the form of an annuitization, death or withdrawal benefits in excess of the policy's stated account balance and are generally offered through separate account products (i.e., the policyholder can direct the account funds to one or more separate account investment alternatives). However, they can be offered through general account products (i.e., non-separate account products) as well.

³²⁰ ASU 2018-12, *Financial Services – Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts*.

³²¹ In accordance with ASU 2020-11, *Financial Services – Insurance (Topic 944): Effective Date and Early Application*, if an entity elects to early adopt the guidance in ASU 2018-12, the transition date would be either the beginning of the prior period presented or the beginning of the earliest period presented.

Before adopting ASU 2018-12, an insurer would generally account for these features as bifurcated embedded derivatives recorded at fair value under ASC 815 or as insurance liabilities under the benefit ratio model in ASC 944 (commonly referred to as Statement of Position 03-1 liabilities), depending on the characteristics of the contract feature.

After adoption of ASU 2018-12

ASU 2018-12 creates a new accounting model for contract features (referred to as market risk benefits) contained in long-duration contracts (generally life insurance and annuity products). A market risk benefit (MRB) is a contract or contract feature that provides protection to the policyholder from (and exposes the insurance entity to) other-than-nominal exposure to capital market risk. MRBs transfer a loss in, or shortfall of, the policyholder's account balance to the insurer but would never include the death benefit component of a life insurance contract.

In the Background Information and Basis for Conclusions of ASU 2018-12, the Board defined capital market risk to include equity, interest rate and foreign exchange risks. Other-than-nominal exposure to capital market risk would exist if the net amount at risk (that is, the guaranteed benefit in excess of the account balance, cash value or similar amount) varies by more than an insignificant amount in response to capital market volatility, and the exposure to capital market risks has more than a remote probability of occurring.

An MRB exposes the insurer to a loss or a shortfall in the policyholder's account balance that would otherwise have been borne by the policyholder. A loss in the policyholder's account balance generally occurs when negative investment performance is passed through to the policyholder. An MRB requires the insurer to compensate the policyholder for this loss. An MRB can also include features that provide protection against a shortfall in an account balance, even though the feature does not protect the policyholder from a loss in an account balance due to investment performance. Features that may meet the shortfall criteria are often structured as guaranteed benefits or specified account values in reference to a target amount.

Under the guidance in ASU 2018-12, MRBs are excluded from the scope of ASC 815. As a result, after determining that a long-duration contract should be accounted for in accordance with ASC 944, entities need to consider whether features in long-duration contracts represent MRBs that are excluded from derivative accounting under ASC 815.

ASU 2018-12 will significantly change the accounting for features deemed to be MRBs that were previously not bifurcated and accounted for separately as derivatives (e.g., because the feature was deemed to be clearly and closely related to the host contract), as these features will now be required to be measured at fair value.

The accounting for an MRB that was previously determined to be an embedded derivative bifurcated from a long-duration contract may not be significantly different because the feature will continue to be measured at fair value. The primary difference is that the new guidance requires the change in fair value of MRBs related to instrument-specific credit risk to be recognized in OCI rather than in earnings.

Contract features that do not meet the definition of an MRB under ASU 2018-12 should continue to be evaluated under ASC 815 to determine whether they represent embedded derivatives that require bifurcation. If they are not accounted for in accordance with ASC 815, the features would generally be accounted for under the insurance liability benefit ratio model, which has been retained.

In section C.1 below, we discuss considerations related to nontraditional life products that may contain embedded derivatives requiring bifurcation under ASC 815, prior to the adoption of the guidance in ASU 2018-12. Certain of these products contain features that are likely to be considered MRBs and, therefore, would no longer be evaluated under the embedded derivatives guidance in ASC 815 after an entity adopts ASU 2018-12.

For example, benefit guarantees, such as guaranteed minimum death benefits (GMDBs), guaranteed minimum accumulation benefits (GMABs), guaranteed minimum income benefits (GMIBs), and guaranteed minimum withdrawal benefits (GMWBs) are likely to be considered MRBs since they generally expose the

insurer to a loss or a shortfall in the policyholder's account balance. In contrast, while equity-indexed annuities provide a benefit to the policyholder based on the performance of an index, these contracts generally do not expose the insurer to a loss or a shortfall in the policyholder's account balance that would otherwise have been borne by the policyholder (unless the contract also includes a benefit guarantee as discussed above) and therefore likely would not be deemed to contain MRBs. Notwithstanding these general observations, it's important to note that the determination of whether an insurance product contains an MRB will vary depending on the facts and circumstances of the contract.

For additional information on ASU 2018-12, including other considerations when determining whether a contract or contract feature meets the definition of an MRB, refer to our Technical Line, **[A closer look at how insurers will have to change their accounting and disclosures for long-duration contracts](#)**. The remainder of this Appendix has not been updated for ASU 2018-12.

C.1 Nontraditional life products

C.1.1 Equity-indexed annuities and life insurance contracts

Many equity-indexed annuities (EIAs) offer policyholders annual investment returns based on the greater of an equity index (e.g., S&P 500 Index) appreciation or a guaranteed floor return. The interest rate floor is a guaranteed rate (e.g., 3% per annum) based on all or a portion of the original deposits (e.g., 90%). Depending on the product design, the annual guaranteed return can result in cumulative investment returns for a multiple year period in excess of the performance of the underlying index for that same period.

The means by which the equity appreciation is credited to the account value vary (e.g., point-to-point, ratchet). For example, the equity return may be based on the appreciation in the equity index for one year with a new starting point (or reset) annually, the change in the index over a several-year period, the equity index at each policy anniversary date, or another value as specified in the contract. The equity appreciation may vest immediately or over time. Index participation rates and limitations on maximum appreciation may be fixed for the life of the contract or reset periodically by the insurer.

In ASC 815-15-55-62 through 55-72 and 55-227 through 55-238, the FASB concluded on specific matters affecting the identification and valuation of embedded derivatives within EIAs at contract inception:

- ▶ The embedded derivative is the insurer's liability arising from equity-based benefits in excess of a guaranteed floor. This derivative functions like a "long" call on the equity index.
- ▶ In an annual-ratchet design EIA, each period's account value appreciation is the greater of the equity index return or the guaranteed return; the index value on which to base the following period's equity return is reset each period. Given the reset of the starting point from which to base the equity appreciation each year, there is an embedded derivative with an equity index option with known terms on Day 1, and a series of options to begin one year, two years, three years, etc., from contract inception, for which the participation rate, cap rate and strike price are not yet known.
- ▶ The FASB concluded that all periods are included in the embedded derivative and are to be valued. There is a single derivative with multiple features and characteristics. The bifurcated derivative should be measured at fair value determined using management's best estimate of the expected future terms (e.g., expected future annual cap rates and participation rates), along with valuation inputs (based on market participant assumptions) that would drive the value of a derivative with these expected terms. Once the terms of the forward-starting options become known (i.e., are set by management), the actual terms should be substituted for the expected terms for purposes of valuation.

For both initial and subsequent measurements, the carrying value of the hybrid instrument will be equal to the fair value of the bifurcated derivative and the accreted value of the debt host contract. Depending on the fair value of the bifurcated derivative, the carrying value of the hybrid instrument may be less than the ASC 944 account balance, which for certain products serves as a floor. Pursuant to ASC 815-

15-55-238, because the bifurcated derivative is carried at fair value in accordance with ASC 815 and the host contract is recorded following the accounting for an investment contract under ASC 944, the carrying value of the hybrid instrument is not subject to an ASC 944 floor.

Equity-indexed life insurance contracts combine term life insurance coverage with an investment feature, similar to universal life contracts. Death benefit amounts are based on the amount selected by the policyholder plus the account value. Like EIAs, the investment return on the account value in an equity-indexed life insurance contract is credited with a return indexed to an equity index (e.g., S&P 500 Index). The contracts cash surrender value is also linked to an equity index. The death benefit amount also may be dependent on the cumulative return on the index.

ASC 815-15-55-73 through 55-76 provides guidance to insurance entities for equity-indexed life insurance contracts. That guidance specifies:

- ▶ The death benefit does not exclude the entire contract from the scope of ASC 815 because the policyholder can obtain the equity-linked return by surrendering the policy.
- ▶ The host contract is debt-like.
- ▶ Because the policyholder can obtain the equity-linked return upon surrender, the appreciation in the account value arising from the equity-indexed feature is an embedded derivative requiring bifurcation. As most equity-indexed life contracts have a guaranteed interest rate, the value of the embedded derivative should be based on the difference between the anticipated equity appreciation and the guaranteed floor.
- ▶ Any indexing of the death benefit would not cause that feature to be bifurcated. That's because the exclusion in ASC 815-10-15-13(c) applies, given the benefit is payable only upon the death of the named insured.

How we see it

Considerations in valuing the embedded derivative include:

- ▶ Participation rates (the portion of the appreciation in an equity index that is credited to the policyholder's account) and cap rates (an upper limit on the amount of appreciation that will be credited during any period), should be considered. If the participation and/or cap rate may be reset by the issuer at policy anniversary dates, management's best estimate as to those future rates should be incorporated into the valuation model.
- ▶ The valuation should consider a policyholder's propensity to surrender and resulting forfeiture of their equity return, if any, due to the loss of nonvested return. Therefore, the valuation should represent the entity's obligation, net of forfeitures, and exclude consideration of specific surrender charges, if any.
- ▶ The valuation should be based on assumptions about the future performance of the equity index based on current market-based information from observable sources, to the extent possible. All assumptions should be consistent with the assumptions that a market participant would use in an exit price valuation and should be assessed at each measurement date to ensure they are representative of market participant assumptions.
- ▶ The valuation should consider counterparty credit risk and nonperformance risk, which includes credit risk associated with the entity that issued the obligation ("own credit risk"). Nonperformance risk refers to the risk that an obligation will not be fulfilled and includes the entity's own credit risk.
- ▶ ASC 820 also effectively requires a risk margin to be included in the valuation of an embedded derivative. The risk margin (or risk premium) represents the adjustment that market participants would demand for bearing risk and uncertainty, and encompasses uncertainty associated with mortality and policyholder behavior, as well as uncertainty inherent in valuing future cash flows.

C.1.2 Benefit guarantees

ASC 815-15-55-57 through 55-61³²² provides guidance related to various types of payment options offered by insurance entities to policyholders. These payment options are discussed below.

GMABs are provisions within or riders attached to a variable annuity or life contract that provide a guaranteed return that may be settled by the contract holder at a stated date. For example, two common GMAB features provide for minimum account values equal to original premium deposits after 10 years or two times premium deposits after 20 years. The minimum account value may then be available for withdrawal or used to determine the periodic annuity payments in the payout phase of the contract.

Two other fairly common guarantees provided in variable annuity products are GMWBs and GMIBs. GMWBs generally allow for minimum withdrawals each year until withdrawals exceed a specified amount and, in some designs, for withdrawals that continue for the policyholder's life. GMIBs may take several forms but generally provide for a minimum periodic benefit during the payout phase of the annuity contract.

ASC 944-20-05-24 through 05-25 and ASC 944-815-25-5 through 25-6 indicate that a guarantee within a variable annuity contract, such as a guaranteed account floor, may be an embedded derivative since it is not clearly and closely related to the host, which is the variable annuity contract itself (as discussed in ASC 944-20-05-18 and 944-815-25-1 through 25-4). Of course, the guarantee would only be bifurcated and accounted for as a derivative if it meets the ASC 815 criteria of a derivative, including net settlement. Accordingly, these benefit guarantees typically are embedded derivatives only if the contract holder can receive the benefit in cash or a cash equivalent (e.g., it can be net settled); GMABs commonly meet this criterion.

Whether a GMWB is considered to be an embedded derivative depends, we believe, on the payout option of the GMWB. In ASC 815-15-55-61, the FASB concluded that in the case of a variable payout annuity with a minimum payout guarantee, the accounting treatment for the minimum guarantee is dependent on the payment option. For a period-certain payout annuity, the guaranteed minimum periodic payments comprise an embedded derivative that is required to be bifurcated because the minimum payments are not clearly and closely related to the host contract (traditional variable payout annuity). However, for a solely life-contingent variable payout annuity, the minimum periodic payments are not required to be bifurcated if there are no withdrawal features because the contract would meet the insurance exclusion. For a period-certain-plus-life-contingent variable payout annuity, only the embedded derivative related to the period-certain minimum periodic payments is required to be bifurcated and accounted for under ASC 815.

Additionally, GMWBs on a fixed indexed annuity are not considered to be derivatives. They are accounted for as additional liabilities for death or other insurance and annuitization benefit features (i.e., SOP 03-1 reserves) because they contain insurance risk (i.e., the policyholder receives a guaranteed withdrawal amount for life even if the account balance has been exhausted, which is often referred to as longevity risk).

GMDBs are another common type of benefit feature offered by insurance entities to policyholders. GMDBs provide a beneficiary with a guaranteed minimum benefit upon the death of the policyholder, independent of the policyholder's available account balance. While this is not specifically addressed in ASC 815-15-55-57 through 55-61, GMDBs qualify for the insurance scope exception in ASC 815 because the benefit is payable only upon the death of the named insured. Therefore, they are not accounted for as derivatives.

³²² ASC 815-15-55-57, 55-59, 55-60 and 55-61 will be superseded by ASU 2018-12.

How we see it

While there are certain distinctions between GMWBs and the guarantees addressed in ASC 815-15-55-57 through 55-61, we believe it is appropriate to analogize to the conclusions reached in those paragraphs to determine the appropriate accounting for the various types of GMWBs.

- ▶ Under a GMWB period-certain payout, the minimum payments continue for a specified period (e.g., 20 years); if the policyholder dies before the end of the period, payments continue to the beneficiary. This type of GMWB is similar to the minimum guarantee on the period-certain variable payout annuity; consequently, these GMWB payments are an embedded derivative that is required to be bifurcated and accounted for under ASC 815.
- ▶ Under a GMWB with a period-certain-plus-life-contingent payout (generally referred to as a “GMWB for life”), the minimum payments are made until the policyholder dies; if the policyholder dies before the end of the specified period, payments continue to the beneficiary for the remainder of the certain period. This type of GMWB is similar to the period-certain-plus-life-contingent variable payout annuity. Consequently, only the embedded derivative related to the period-certain minimum periodic payments is required to be bifurcated and accounted for under ASC 815. The life-contingent component should be accounted for under the provisions of ASC 944.
- ▶ Under a GMWB with a for-life payout with no minimum payment period, the minimum payments continue only as long as the policyholder is alive. This type of GMWB is similar to the minimum guarantee for a solely life-contingent variable payout annuity; consequently, this guarantee is accounted for under the provisions of ASC 944, and there is no portion deemed to be an embedded derivative that should be bifurcated and accounted for under ASC 815.

A GMIB differs from a GMWB in that a GMIB requires annuitization in order to receive the benefit of the guarantee, and the decision to annuitize is irrevocable. GMIBs may or may not be considered an embedded derivative. ASC 815-15-55-59³²³ specifically addresses the accounting during an annuity’s accumulation phase for guarantees that affect periodic payments to be made to the contract holder during the annuity’s payout phase. These guarantees were not determined to be embedded derivatives during the accumulation phase because the guarantees cannot be net settled (i.e., the contract holder can only obtain the value of the guarantee by electing to annuitize). Even then, the benefit of the guaranteed minimum return would only be realized over the life of the annuity.

The FASB also addressed whether a GMIB, or guaranteed floor, during the payout phase of a variable annuity is an embedded derivative. This guarantee generally has no effect on assets during the accumulation phase of the annuity, but only affects payments to be made to the contract holder during the annuity phase. The answer depends on whether the annuity is considered an investment contract (the contract does not include other than insignificant mortality or morbidity risk) or an insurance contract (the contract includes other than insignificant mortality or morbidity risk). For an investment contract, the floor payment is a derivative. Conversely, the insurance contract is not subject to ASC 815, as the insurance exclusion applies.

³²³ ASC 815-15-55-59 will be superseded by ASU 2018-12.

How we see it

For products in which an embedded derivative is identified, there are several matters that need to be considered that are not stipulated in ASC 815-15-55-57 through 55-61. A few such considerations are:

- ▶ The fair value of the derivative represents the amount the insurer would pay a third party to be relieved of its guarantee. This is, presumably, equal to the difference between the expected value of payments to be made pursuant to the guarantee, plus an appropriate risk premium, and the expected value of the future revenue stream of mortality and expense fees (M&E) funding the insurer's guarantee.
- ▶ The M&E fees used in the valuation of the derivative may be derived from information found in the contract, or a product filing with federal or state regulators, or internal valuations about the portion of fees collected from the contract holder that relate to the guarantee being provided on the contract.
- ▶ Because the M&E fees to be charged to the contract holders represent the price for the guarantee at contract issuance, the expected value of payments plus an appropriate risk premium generally would equal the expected value of fees. Accordingly, the fair value of the embedded derivative at contract issuance would be zero. This generally would also imply that reinsurance of this risk would be available at similar pricing.
- ▶ The derivative may be an asset if the expected value of the future M&E fees to be collected attributed to the guarantee exceeds the expected value of payments to be made pursuant to the guarantee, plus an appropriate risk premium. If the fair value calculation results in an asset that is material, the assumptions used in fair valuing the embedded derivative should be challenged as to whether they are reasonable. In these situations, it is more likely that a contract holder will surrender his or her contract when the fee (e.g., 75 basis points) is no longer commensurate with the prospective guarantee (payment under the guarantee provisions becomes less probable after numerous periods of favorable investment results). For example, a decision to surrender could be a prudent action as another contract is likely to provide a greater potential benefit (e.g., an investment guarantee applied to a larger asset base) for a similar fee.
- ▶ The derivative should be reported in the General Account, as the obligation to pay a minimum benefit is that of the General Account (insurer sponsoring the Separate Account) and not the Separate Account.
- ▶ GMABs, GMWBs and GMIBs within a variable life insurance product should be accounted for similar to those in a variable annuity product.

C.1.3

Synthetic GICs

Traditional guaranteed investment contracts (GICs) provide holders, typically benefit plans, with a stable rate of return as determined by the issuer (i.e., an insurance company). Because the assets and liabilities related to a traditional GIC are held within an insurer's general account, the holder has credit exposure to the insurance company and is also charged, through increased investment spreads or fees, to reimburse the insurer for its cost of capital necessitated by the insurance liabilities. To avoid the credit exposure and additional costs, a benefit plan or other traditional GIC customer may decide to directly hold invested assets and obtain a separate contract to provide benefit-responsive book value liquidity or to provide a stable or guaranteed return (referred to as a "wrap" contract).

Pursuant to the separate wrap contract, the holder pays a fee to the insurance company either directly or through an explicit or implicit investment spread. The guarantee may be provided in various ways, such as:

- ▶ The issuer provides cash advances to fund the holder's benefit-responsive cash withdrawal requirements if the invested asset values have decreased.
- ▶ An agreement by the issuer to buy assets at book value if a sale is needed to make benefit payments.
- ▶ An agreement whereby the synthetic GIC issuer exchanges a fixed return for the market value return of the supporting assets.
- ▶ A payment upon termination of the contract equal to the difference between a hypothetical book value of plan assets and their market value.

For GICs with a rate reset, the insurer has the ability to recoup losses on the wrap contract by lowering the interest rate credited to the contract holder on the GIC in future periods. Additionally, to limit the insurer's exposure to loss there is often a market rate adjustment upon early surrender. For example, in the event surrenders exceed a certain level, the wrap may unravel thereby mitigating the extent of loss to the issuer.

ASC 815-10-05-9 through 05-15 and ASC 815-10-55-63 and 55-170 indicates that the wrap provided in a synthetic GIC generally is a derivative. Although synthetic GICs can take many forms, a wrap contract generally is viewed as equivalent to a put option written by the wrap provider or, for the fixed-rate, fixed maturity synthetic GIC, a swap with the contract holder.

How we see it

Synthetic GIC obligations are funded by future charges to the holder through an explicit fee or reduction of the investment return. Accordingly, the nature of the derivative and valuation considerations would generally be similar to benefit guarantees. Specific considerations relevant to the valuation of the embedded derivative by the issuer include:

Synthetic GICs functioning as a put option

- ▶ The fair value of the derivative represents the amount the insurer would pay a third party to be relieved of its guarantee. This is, presumably, equal to the difference between the expected value of payments to be made related to the guarantee in light of existing and expected contract and market conditions, plus an appropriate risk premium, and the expected value of future charges. The derivative would generally be reflected as a liability (asset) and an expense (revenue) in the general account.
- ▶ The fees, or revenues from an increased investment spread, included in the valuation of the derivative may be derived from either information contained in a product filing with federal or state regulators or internal valuations about the portion of fees collected from the contract holder that relate to the guarantee being provided on the contract.
- ▶ At contract issuance, the expected value of future charges for the wrap contract generally would equal the price that the issuer would pay a market participant to assume the guarantee obligation. As such, the fair value of the derivative at contract issuance generally would be zero or near zero, depending on whether and to what extent market participants would compensate a transferor for its "sales" efforts. This would also imply that reinsurance of this risk would be available at similar pricing.
- ▶ The derivative may be an asset if the expected value of future charges (either explicit or included within the investment spread) exceeds the expected value of payments to be made related to the guarantee in light of existing and expected contract and market conditions, plus an appropriate risk premium. If the fair value calculation results in an asset that is material relative to future charges, we believe the assumptions used to value the embedded derivative should be challenged.

Fixed rate-fixed maturity synthetic GICs

- ▶ The fair value of the derivative represents the amount the insurer would pay a third party to be relieved of its guarantee. This is, presumably, equal to the difference between (1) the present value of the fixed rate of return provided the contract holder and the present value of the market return assumed by a market participant in light of existing and expected market conditions, plus an appropriate risk premium, and (2) the expected value of future charges. The derivative would generally be reflected as a liability (asset) and an expense (revenue) in the general account.
- ▶ At contract issuance, the pricing of the guarantee generally would equal the price that the issuer would pay a market participant to assume the guarantee obligation. As such, the fair value of the derivative at contract issuance generally would be zero or near zero, depending on whether and to what extent market participants would compensate a transferor for its sales efforts.
- ▶ Subsequent to contract inception, market fluctuations are likely to result in differences between anticipated market returns and the fixed rate of return. The resulting derivative can either be an asset or a liability to the issuer.
- ▶ If permitted by the contract, expected withdrawals should be considered in the valuation of the embedded derivative.

C.1.4 Market-value-adjusted annuity contract

The main differentiating characteristic of a market-value-adjusted annuity relative to other annuity products is its surrender provisions. At the specified maturity date, the contract holder is entitled to a return of principal plus a fixed rate of interest. If surrendered prior to maturity, the contract holder is entitled to a market-adjusted value. This market-adjusted value is determined by reference to a current offering rate or an index interest rate, depending on the contract. Thus, similar to selling a public bond, if interest rates decline, the market-adjusted value rises. If interest rates increase, the market-adjusted value decreases.

ASC 815-15-55-120 through 55-127 indicates that these types of market-value-adjusted annuity contracts (MVAs) do not contain embedded derivatives necessitating bifurcation because both the host and market-adjusted prepayment feature are debt like, since their values are both tied to interest rates. Accordingly, the market-adjusted prepayment feature is clearly and closely related to the debt host. Under ASC 944, MVAs do not meet the criteria to qualify for separate account treatment and, therefore, the assets and liabilities related to MVAs should be accounted for and reported as general account assets and liabilities. The liability for the MVAs should be reported at the annuity's account balance, using the contractually specified rate.

C.1.5 COLI/BOLI and stable value riders

COLI provides whole life insurance coverage to "key-man" executives. There are three forms of COLI policies: general account COLI, which is not subject to the provisions of ASC 815 because it is a traditional insurance contract; separate account COLI without a stable value rider, which provides a death benefit component and an investment component (i.e., variable life insurance); and separate account COLI with a stable value rider (SVR), which guarantees the cash value of the policy (i.e., original premium plus accrued interest, irrespective of the value of the underlying assets) at surrender. The investment options in a separate account COLI policy include both fixed income and equity funds.

Without stable value protection, the holder of a separate account COLI policy bears all risk of investment loss. Separate account COLI with stable value protection guarantees the cash value of the policy upon surrender. The SVR may be written by the insurer or purchased from a third party.

Accounting by the policyholder for a COLI policy, other than a life settlement contract, is addressed in ASC 325-30.³²⁴ ASC 325-30-35-1 requires that the holder record the contract at net realizable value.

In Implementation Issue B31,³²⁵ which addresses only the policyholder's accounting for COLI/BOLI products, the FASB's conclusions were:

- ▶ Net realizable value determined under ASC 325-30 is not fair value – thus, COLI/BOLI is not exempted from ASC 815 as a contract carried at fair value.
- ▶ From the policyholder's perspective, the application of ASC 325-30 to the host contract (life insurance contract absent the embedded derivative) cannot be accomplished because the hypothetical host contract has no cash surrender value.
- ▶ The policyholder should continue to account for its investment in a COLI/BOLI contract in its entirety under the provisions of ASC 325-30.
- ▶ The policyholder should not apply the embedded derivative provisions of ASC 815 to a life insurance contract that is subject to ASC 325-30.

How we see it

Accounting by the holder

- ▶ Determining the amounts available at the balance sheet date requires a careful analysis of the COLI/BOLI policy provisions, including all riders and other legal attachments. To the extent the policy provides for a cash surrender value that allows the holder to immediately surrender the policy at a stated (determined) balance, that balance is the amount to be recorded under ASC 325-30. If the contract does not provide for a complete surrender but allows for partial withdrawals over a future period, we believe that it may be appropriate to look to the guidance in ASC 835 to determine the present value of such future amounts using an appropriate discount rate.

Accounting by the issuer

- ▶ Typically, the stable value protection related to a separate account COLI policy is provided by a contract purchased from an unrelated third party and held as an asset within the separate account. In these situations, the stable value contract generally is determined to be a derivative. Assuming the criteria in ASC 944-80-25-2 are satisfied, the separate account assets, including the stable value contract, are recognized at fair value and an equivalent amount is reported for the related policyholder liability. The fair value of the stable value derivative should be based on market-based information and assumptions that a market participant would use in an exit price valuation at the measurement date.
- ▶ If the insurer or a consolidated affiliate underwrites the stable value protection, we believe it is appropriate to evaluate the arrangement as one integrated contract rather than as two separate contracts. When evaluated as an integrated contract, the arrangement essentially creates a universal life insurance contract with a declared interest rate, which will not satisfy the criterion in ASC 944-80-25-2(d) because all investment performance is not considered to be passed through to the policyholder. Therefore, the assets and policyholder liability should be accounted for as general account assets and liability. In this situation, the stable value protection feature likely would be considered clearly and closely related to the host contract and would not be bifurcated.

³²⁴ ASC 325-30-05-3 through 05-5, 15-2 through 15-3, 25-1, and 35-1 through 35-2.

³²⁵ Implementation Issue B31 was not specifically cross-referenced in the Codification. Implementation Issue B31 provided a scope exception for an insured's investment in a life insurance contract, even if certain features of that contract would otherwise qualify as embedded derivatives requiring bifurcation. That scope exception was later included as an amendment to the Codification and is codified at ASC 815-10-15-67.

C.1.6 Multi-bucket annuities

Multi-bucket annuities are general account products. The contract is intended to function similar to a variable annuity with a floor guarantee. The policyholder selects among various available crediting strategies, such as convertible bonds, high-yield bonds or investment-grade corporate bonds. The insurer is not required to invest according to policyholder investment instructions but is required to pass through investment performance for the selected strategy as current policy credits or through a total return adjustment at termination, subject to contractual investment return minimums. Typically, the minimum investment returns are applicable to the entire contract and not to each individual investment strategy.

The FASB has not specifically addressed this product.

How we see it

Although the economic characteristics of a multi-bucketed annuity may be similar to a variable annuity, ASC 944-20-05-24 through 05-25 and ASC 944-815-25-5 through 25-6 indicate that a contract cannot be analogized to a variable annuity contract. As a result, the host contract of a multi-bucket annuity is not a variable annuity contract. Rather, it is debt-like and the guaranteed floor is clearly and closely related to this debt host. However, an embedded derivative arises from the contract holder's right to the total return resulting from performance of an indexed investment portfolio. The total return adjustment includes two main components: unrealized gains/losses on selected investment strategies and the contract holder's ability to redirect his or her investment strategy choices among investment strategies with different implied volatilities, thus creating more value to the floor guarantee. However, this feature is considered a compound derivative representing the insurer's obligation to pay an investment return in excess of a minimum floor (i.e., an embedded option on a basket of investments).

Accordingly, there are two main components to the valuation of the embedded derivative. First, the insurance company has written a put that allows the contract holder to put the contract to the insurer for the fair value of the underlying invested assets. Second, the switching feature represents the contract holder's ability to transfer among investment strategies with different implied volatilities. The value of the put feature is higher for more volatile investment strategies, such as those involving equities or high-yield bonds, than for a less volatile investment strategy, such as investment-grade bonds. Recognizing that the floor guarantee provides greater value to more volatile investment choices, many multi-bucket annuity writers have begun to require diversification of an individual's portfolio, thus limiting the allocation of assets to certain funds, such as equities. These limitations should be considered in valuing the bifurcated embedded derivative.

To value the switch feature, a reasonable best estimate of the transfers should be supported. If management cannot support a best estimate due to the judgmental nature of the assumptions to be made, it should assume a worst-case scenario (maximum transfer to most volatile funds).

Given the complex nature of the product and the way in which the various features of the contract interact between the ASC 815 host contract and embedded derivative, some insurers may conclude they are unable to reliably bifurcate the embedded derivative and are therefore required to fair value the entire contract under ASC 815-15-25-53. If that is the case, the fair value of the hybrid contract should be based on an exit price for the entire contract, taking into consideration market-participant assumptions, in accordance with ASC 820. This valuation should include assumptions about risk, including counterparty credit risk and nonperformance risk, which includes credit risk associated with the entity that issued the obligation ("own credit risk"). One acceptable approach to fair valuing the contract may be to fair value the hybrid contract based on the fair value of the implied investment portfolio plus the fair value of the floor guarantee. This is an appropriate approach as long as the valuation includes adjustments for risk margin, counterparty credit and nonperformance risk.

C.1.7 Group pension participating and experience rated contracts

Group pension participating contracts take several forms but are primarily comprised of two components: a guaranteed rate of return on employer contributions into the plan and an experience rating feature based on actual investment, mortality and expense experience. When the balance in the experience rating account exceeds the contract holder account balance, the holder is eligible to receive a dividend. The contract generally maintains its “participating” status as long as the contract holder account balance is sufficient to meet the cost of annuities to be purchased. The mortality and investment risks are borne by the plan (i.e., the employer is at risk for the amount it guarantees its employees upon retirement less the value of the individual annuities).

If the contract holder account balance is less than the amount the insurer estimates is necessary to purchase annuities and the employer does not make a contribution to bring the account value up to the required level, the contract typically converts to nonparticipating status and the insurer bears the mortality and investment risks thereafter. The insurer is liable for payments to retirees and, depending on the contract, to active employees for vested benefits.

The FASB has not specifically addressed this product.

How we see it

The issue in applying ASC 815 to these products is whether the participation or experience-rating feature gives rise to an embedded derivative and, if so, whether it is bifurcated and accounted for separately. For most group participating pension and experience rated contracts, the participation experience-rating feature meets the four criteria of a derivative under ASC 815 (the yield arising from the actual contract experience is the underlying, the face value of the investment portfolio is the notional, there is no initial net investment and the net settlement is based on the performance of the pension assets). Therefore, the participation experience-rating feature should be accounted for as a bifurcated derivative at fair value. The fair value of the bifurcated derivative should be representative of an exit price based on current market information. The assumptions used in the valuation should be consistent with the assumptions used by a market participant in an exit price valuation. These assumptions should be assessed at each measurement date to ensure they are representative of current market participant assumptions.

To the extent the participation experience-rating feature does not require bifurcation, the liability for the hybrid contract should be based on the fair value of the referenced pool of assets, with any change in the liability recognized through earnings, in accordance with ASC 944-40-25-18 through 25-21.

C.1.8 Coinsurance and ModCo reinsurance

Under a coinsurance arrangement, the reinsurance coverage ceded by the reinsured (referred to as the ceding entity) to the reinsurer (referred to as the assuming entity) on an individual policy essentially mirrors that of the original policy. The ceding entity and the assuming entity share agreed-upon percentages of the premiums, claims, surrenders and other benefits related to the underlying policies. The ceding entity pays the assuming entity a proportional part of premiums collected from the insured. In return, the assuming entity reimburses the ceding entity for its proportional share of the death or accident and health claim payments and other benefits provided by the policy. The assuming entity also pays an agreed-upon expense allowance to the ceding entity in recognition of the commissions and other administrative and maintenance expenses incurred on the ceded portion. The assuming entity records a liability for its share of reserves and owns the investments supporting the reserves.

Modified coinsurance (ModCo) is used primarily in reinsuring products that develop cash values. The difference from coinsurance is that assets equal to the ceded reserve liabilities are retained, or held, by the ceding entity. This allows the ceding entity to retain the assets for investment purposes and reduces the ceding entity's credit exposure to the assuming entity.

Under a ModCo arrangement, the ceding entity pays the assuming entity a specified portion of the underlying policy premiums, less an agreed-upon expense allowance, plus a return on the ModCo payable/receivable, generally an amount equal to the actual return on the assuming entity's share of the retained assets. The assuming entity pays the ceding entity its proportionate share of surrenders, death claims and policyholder dividends, as applicable, as well as the ModCo adjustments (ending policy reserves less beginning policy reserves less interest on beginning policy reserves) and the interest credited on policyholder reserves. These cash flows are generally settled on a net basis and sometimes referred to as the ModCo reserve adjustment.

Coinsurance with funds withheld (CFW) arrangements are similar to ModCo reinsurance arrangements. The "funds withheld" provision permits the ceding entity to retain the assets relating to the underlying policies. Essentially, at the inception of the contract, there is a "hypothetical loan" from the assuming entity to the ceding entity equal to the portfolio of assets (and reserves) that were not transferred from the ceding entity to the assuming entity as part of the reinsurance arrangement. The amounts withheld by the reinsured are recorded as a liability by the ceding entity and a receivable by the assuming entity. Similar to ModCo arrangements, in most contracts involving a US domiciled ceding entity, the interest crediting rate on the funds withheld generally will be equal to the ceding entity's actual investment earnings rate on all or a portion of its investment portfolio or on a specified pool of assets.

Some reinsurance arrangements contain *experience refund provisions* under which the assuming entity pays a refund to the ceding entity based on the actual performance of the reinsured block of business. This experience refund may reflect a number of factors, such as mortality, expense and investment performance. The investment performance generally will be related to a portfolio of assets backing the underlying business.

Essentially, ModCo/CFW arrangements meet all of the criteria of ASC 815-15-25-1. With respect to ASC 815-15-25-1(a), the risk exposure of the ceding entity's general account assets or its securities portfolio is not "clearly and closely related" to the risk exposure arising from the overall creditworthiness of the ceding entity, which is also affected by other factors. With respect to ASC 815-15-25-1(b), otherwise generally accepted accounting principles for ModCo/CFW arrangements do not call for them to be accounted for at fair value, with changes in fair value reported in earnings as they occur. With respect to ASC 815-15-25-1(c), the required definitional elements of a derivative are in place, no matter how one defines the "host contract." The "underlying" might be viewed as the return on the investment portfolio and the "notional amount" might be viewed as the dollar value of the reinsured statutory reserves/investment portfolio backing the statutory reserves. With respect to "net settlement," neither party is required to deliver an asset that is associated with the underlying or that has an amount equal to the notional amount. If the referenced investment portfolio return is positive, the ceding entity owes the return to the assuming entity. If the return on the investments is negative, the assuming entity owes the ceding entity an amount equal to the negative return. In either case, the actual cash settlement between the assuming and ceding entities considers all the other components of the reinsurance arrangement.

Although ASC 815-15-25-47 and ASC 815-15-55-101 through 55-109 concluded that ModCo/CFW arrangements fall within the "embedded derivatives" section of the ASC 815 umbrella, each ModCo/CFW arrangement should be evaluated individually to determine whether the embedded derivative should be bifurcated and recorded at fair value in accordance with ASC 815. Since the nature of the embedded derivative is strongly influenced by the determination of the host contract, the host contract must be identified first. Host contracts for ModCo/CFW arrangements typically are either the ModCo/CFW arrangement itself (i.e., the insurance contract) or a deemed "debt host." The determination of the host

contract should be based on the characteristics of the hybrid instrument (i.e., the ModCo/CFW contract), the issuer (i.e., the ceding entity) and the market in which the contract is issued. ASC 815 does not provide specific guidance on determining the host contract; rather, this requires judgment.

Once the host contract is determined, the embedded derivative features should be evaluated following the guidance in ASC 815-15-05-1, 25-1, 25-14, 35-2A and 25-26 through 25-29 to determine whether the economic characteristics and risks of each feature are “clearly and closely related” to the economic characteristics of the host contract. If it is determined that the host contract is the ModCo/CFW contract, the associated assets and liabilities of the contract together constitute the “hybrid instrument.”

ASC 815-15-25-47 and 815-15-55-101 through 55-109 clarify that an instrument which incorporates credit risk exposures that are either unrelated or only partially related to the creditworthiness of that instrument’s obligor has an embedded derivative that is not considered “clearly and closely related” to the economic characteristics and risks of the host contract. Therefore, such an embedded derivative must be bifurcated from the host reinsurance contract. In this case, only the third-party credit risk exposure is an element in analyzing the embedded derivative. Therefore, the value of the derivative would be determined based on the movements in the asset market value caused by credit-related events, including changes in credit spreads.

If it is determined that the host contract is a debt instrument, the reinsurer is exposed not only to the counterparty credit risk of the ceding entity but also to the overall price risk, including credit of the underlying assets held by the ceding entity. The counterparty credit risk of the ceding entity should be accounted for in the same manner as discussed above for the reinsurance contract. In evaluating the other price risks related to the underlying assets, such as interest rate risk, an entity should review the characteristics of the underlying contract and consider the nature of the underlying liabilities (i.e., the underlying reinsurance products) and the nature of the assets. If as a result of this analysis, which should include ASC 815-15-25-26 through 25-29, the interest rate risk is determined to be not “clearly and closely related” to the host contract, that feature must be bifurcated with the third-party credit risk feature as part of a “compound embedded derivative” as required by ASC 815-15-25-7.

In practice, we understand that various methods are used to value the bifurcated derivative (e.g., credit default swap method, total return swap method). Regardless of the method used, the fair value of the bifurcated embedded derivative should be based on an exit price considering current market-based information, in accordance with ASC 820. In addition, counterparty credit risk and nonperformance risk should be included in the value of the embedded derivative.

C.1.9 Actuarial funded products

Actuarial funded products are unit-linked investment products, common to the UK, Australia and Germany, where local regulations permit actuarial valuation and purchase of segregated fund assets at amounts less than the customer deposit to avoid the initial surplus strain of writing new business (acquisition expenses cannot be capitalized for local reporting purposes). A large portion of initial policyholder deposits, typically the first two years for annual premium products, is not deposited into the segregated fund unit-linked assets backing the contract. The portion of the deposit not used to purchase segregated fund units represents an estimate of the overall future M&E fees to be charged on capital units. The funded account balance is generally consistent with the surrender value of the contract. Pursuant to local reporting requirements, insurers are required only to report a contract holder liability for the funded account balance or surrender value of the contract thereby avoiding the initial surplus strain of writing new business.

Capital units are issued during the initial two-year period and represent the full liability (i.e., both unfunded and funded by segregated fund assets) that is reported to the contract holder. Capital units are assessed a higher annual management charge and, even though they have a large unfunded component, accrete interest based on the investment yields of the applicable unit-linked segregated fund. Because

these excess management fees are not withdrawn from separate account assets funding the capital units, separate account assets will ultimately approach the value of capital units over time and equal the value of capital units at the end of the contract term. After the initial two-year period, accumulation units, with a standard annual management charge (e.g., 0.5%), are issued for the remainder of the contract. These units are fully invested in segregated fund units.

To the extent the contract is not accounted for under ASC 815, the contract holders' liability would be equal to the account value, which we believe, under the provisions of ASC 944, would be based on the fair value of the referenced funded and unfunded capital and accumulation units. Surrender charges are not considered in the valuation of an ASC 944 liability.

The FASB has not specifically addressed this product.

How we see it

The issue in applying ASC 815 to these products is whether the actuarial funding component of the contract is essentially an indexed product rather than the equivalent of a traditional variable annuity contract, which, according to ASC 944-815-25-1 through 25-4, is itself the host contract. These paragraphs identify several indicators that provide the basis to conclude that a traditional variable annuity is not a hybrid instrument (e.g., an instrument with one or more embedded derivatives). Actuarial funded products differ from the third and fourth indicators identified in these paragraphs, which are as follows: "the policyholder's premium is invested in contract-approved separate accounts at the policyholder's discretion" and "the insurer must invest in the assets on which the account values are based." Accordingly, we believe an actuarial funded product should not be considered a traditional variable annuity that has no embedded derivatives.

The investment return feature would appear to meet the following characteristics of a derivative:

- ▶ The separate account assets are the underlying basis of calculating the investment return on the unfunded portion of the liability, thus an index.
- ▶ The contract holder's liability or value of the capital units is the notional.
- ▶ The capital units may be net settled based on the investment return of the investment portfolio.

ASC 944 requires that, to the extent a contract of this nature is not accounted for under ASC 815, the account balance be based on the fair value of the referenced pool of assets. Thus, while an embedded derivative exists, it is reasonable to conclude that the combination of the fair value of the embedded derivative and the host value determined in accordance with the provisions of ASC 944 will approximate the carried liability based on the notional value of the funded and unfunded capital and accumulation units.

C.2 Property/casualty products

C.2.1 Dual-trigger insurance contracts

This emerging type of commercial insurance product seeks to reduce premiums for customers by tailoring policies such that legitimate insurable event loss coverage is "triggered" only in those economic periods in which the insured would most need protection. For example, a utility most needs protection from power outages when the spot market for replacement power is unusually high, a hospital most needs malpractice protection when its equity portfolio falls below a certain level or an iron ore mining company most needs workers' compensation claim protection when the price of iron ore is below a certain level. Some triggers work as on/off switches to determine whether a claim is paid at all; other triggers pay a claim but reduce it such that less than 100% of losses are covered. In all cases, the claim payment never exceeds the total amount of loss.

The issue is whether the second trigger (spot price of power, equity index, iron ore price) represents an embedded derivative that must be bifurcated. If certain conditions with respect to a contract are met, then ASC 815-10-15-52, 15-55 through 15-57, 815-10-55-37 through 55-40, 55-132 through 55-134, and 815-15-55-12 exempt most dual triggers from the embedded derivative provisions of ASC 815.

Principally, the conditions are as follows: the benefits must be paid only for identifiable insurable events, the claim payment must be limited to the insurance loss and claim payments must not be certain as a result of the occurrence of the insurable risk being probable. If this third condition is not clearly passed, the contract may have to be bifurcated into two pieces – a risk and a non-risk component. These conditions were intended to prohibit abuses, such as the use of unrelated second triggers within insurance and reinsurance policies to avoid the recognition of a derivative in the financial statements.

C.2.2 Dual-trigger financial guarantee contracts

The financial guarantee issue is slightly different from the dual-trigger insurance issue because these policies do not enjoy the same broad-based exemption in ASC 815 that insurance policies do. The second trigger in these contracts typically refers to the default rate on an outside, customized pool of consumer loans, such that a guarantor does not have to make claim payments to an insured that exceed an “industry” default rate (absolving an insurer from having to worry about an insured’s underwriting standards). The FASB has concluded³²⁶ that the second trigger (mitigating claim payments if an industry index is not met) functions like a type of deductible and, as such, is not an embedded derivative.

C.2.3 Foreign currency elements of insurance contracts

A property casualty contract insuring a foreign-based operation may provide for claim payments in US dollars but loss reporting in the applicable foreign currency. In these circumstances the insurance contract may specify the rate of exchange to be applied to the losses reported. That exchange rate might be the one at the claim payment date, the loss occurrence date or the contract inception date. Pursuant to ASC 815-15-55-1 through 55-4, such an insurance contract does not qualify as traditional insurance under ASC 815-10-15-53(b) because it contains a foreign currency element. ASC 815-15-15-10 includes a scope exception to derivative accounting for a contract that contains an embedded foreign currency derivative involving payments denominated in the functional currency of a substantial party to the contract. While that paragraph only applies to nonfinancial contracts, ASC 815-15-15-20 extends the exception in ASC 815-15-15-10 to a normal insurance contract involving payment in the functional currency of either of the two parties to the contract.

C.3 Other matters affecting accounting for embedded derivatives

C.3.1 DAC implications of embedded derivatives

Questions have arisen in practice as to how to consider the income effect of embedded derivatives in amortizing deferred acquisition costs (DACs) for certain ASC 944 products. Specifically, how should the income effect be considered in the calculation of estimated gross profits (EGPs) used to amortize DAC? With respect to this matter, we believe the following is relevant:

- ▶ DAC amortization should consider earnings from both components of a hybrid investment – the host contract and the embedded derivative.
- ▶ Estimated income from changes in the fair value of the embedded derivative should be considered in EGPs used in the calculation of DAC amortization.

³²⁶ ASC 815-10-55-32 through 55-36.

- ▶ If an insurer economically hedges the embedded derivative, the cost of the derivative used to “hedge”³²⁷ the embedded derivative and the changes in fair value of that derivative should also be considered in the EGPs used to calculate DAC amortization.

If charges, such as the M&E fees, allocated to fund the embedded derivative are included in the valuation of the embedded derivative, such revenues should be excluded from the estimate of EGPs to avoid double counting them (e.g., used in the EGP stream as revenue while also being embedded in the change in derivative value included in EGPs).

³²⁷ Only derivatives used to specifically offset components of an insurance contract can be considered in the EGPs used to calculate DAC amortization.

D Abbreviations used in this publication

| Abbreviation | Full title of guidance reference |
|--------------|---|
| ASC 210 | FASB ASC Topic 210, <i>Balance Sheet</i> |
| ASC 220 | FASB ASC Topic 220, <i>Income Statement – Reporting Comprehensive Income</i> |
| ASC 230 | FASB ASC Topic 230, <i>Statement of Cash Flows</i> |
| ASC 250 | FASB ASC Topic 250, <i>Accounting Changes and Error Corrections</i> |
| ASC 260 | FASB ASC Topic 260, <i>Earnings Per Share</i> |
| ASC 310 | FASB ASC Topic 310, <i>Receivables</i> |
| ASC 320 | FASB ASC Topic 320, <i>Investments – Debt Securities</i> |
| ASC 321 | FASB ASC Topic 321, <i>Investments – Equity Securities</i> |
| ASC 323 | FASB ASC Topic 323, <i>Investments – Equity Method and Joint Ventures</i> |
| ASC 325 | FASB ASC Topic 325, <i>Investments – Other</i> |
| ASC 326 | FASB ASC Topic 326, <i>Financial Instruments – Credit Losses</i> |
| ASC 450 | FASB ASC Topic 450, <i>Contingencies</i> |
| ASC 460 | FASB ASC Topic 460, <i>Guarantees</i> |
| ASC 470 | FASB ASC Topic 470, <i>Debt</i> |
| ASC 480 | FASB ASC Topic 480, <i>Distinguishing Liabilities from Equity</i> |
| ASC 505 | FASB ASC Topic 505, <i>Equity</i> |
| ASC 606 | FASB ASC Topic 606, <i>Revenue from Contracts with Customers</i> |
| ASC 718 | FASB ASC Topic 718, <i>Compensation – Stock Compensation</i> |
| ASC 740 | FASB ASC Topic 740, <i>Income Taxes</i> |
| ASC 805 | FASB ASC Topic 805, <i>Business Combinations</i> |
| ASC 810 | FASB ASC Topic 810, <i>Consolidation</i> |
| ASC 815 | FASB ASC Topic 815, <i>Derivatives and Hedging</i> |
| ASC 820 | FASB ASC Topic 820, <i>Fair Value Measurement</i> |
| ASC 825 | FASB ASC Topic 825, <i>Financial Instruments</i> |
| ASC 830 | FASB ASC Topic 830, <i>Foreign Currency Matters</i> |
| ASC 835 | FASB ASC Topic 835, <i>Interest</i> |
| ASC 842 | FASB ASC Topic 842, <i>Leases</i> |
| ASC 845 | FASB ASC Topic 845, <i>Nonmonetary Transactions</i> |
| ASC 848 | FASB ASC Topic 848, <i>Reference rate Reform</i> |
| ASC 860 | FASB ASC Topic 860, <i>Transfers and Servicing</i> |
| ASC 940 | FASB ASC Topic 940, <i>Financial Services – Brokers and Dealers</i> |
| ASC 942 | FASB ASC Topic 942, <i>Financial Services – Depository and Lending</i> |
| ASC 944 | FASB ASC Topic 944, <i>Financial Services – Insurance</i> |
| ASC 946 | FASB ASC Topic 946, <i>Financial Services – Investment Companies</i> |
| ASC 948 | FASB ASC Topic 948, <i>Financial Services – Mortgage Banking</i> |
| ASC 954 | FASB ASC Topic 954, <i>Health Care Entities</i> |
| ASC 960 | FASB ASC Topic 960, <i>Plan Accounting – Defined Benefit Pension Plans</i> |
| ASC 962 | FASB ASC Topic 962, <i>Plan Accounting – Defined Contribution Pension Plans</i> |
| ASC 965 | FASB ASC Topic 965, <i>Plan Accounting – Health and Welfare Benefit Plans</i> |

| Abbreviation | Full title of guidance reference |
|---------------------|---|
| ASU 2014-03 | FASB ASU 2014-03, <i>Derivatives and Hedging (Topic 815): Accounting for Certain Receivable-Variable, Pay-Fixed Interest Rate Swaps – Simplified Hedge Accounting Approach</i> |
| ASU 2016-01 | FASB ASU 2016-01, <i>Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities</i> |
| ASU 2016-02 | FASB ASU 2016-02, <i>Leases (Topic 842)</i> |
| ASU 2016-03 | FASB ASU 2016-03, <i>Intangibles – Goodwill and Other (Topic 350); Business Combinations (Topic 805); Consolidation (Topic 810); Derivatives and Hedging (Topic 815): Effective Date and Transition Guidance (a Consensus of the Private Company Council)</i> |
| ASU 2016-05 | FASB ASU 2016-05, <i>Derivatives and Hedging (Topic 815): Effect of Derivative Contract Novations on Existing Hedge Accounting Relationship (a consensus of the FASB Emerging Issues Task Force)</i> |
| ASU 2016-13 | FASB ASU 2016-13, <i>Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments</i> |
| ASU 2017-12 | FASB ASU 2017-12, <i>Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities</i> |
| ASU 2018-12 | FASB ASU 2018-12, <i>Financial Services – Insurance (Topic 944): Targeted Improvements to the Accounting for Long-Duration Contracts</i> |
| ASU 2019-04 | FASB ASU 2019-04, <i>Codification Improvements to Topic 326, Financial Instruments – Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments</i> |
| ASU 2020-05 | FASB ASU 2020-05, <i>Revenue from Contracts with Customers (Topic 606) and Leases (Topic 842): Effective Dates for Certain Entities</i> |
| ASU 2020-06 | FASB ASU 2020-06, <i>Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity’s Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity’s Own Equity</i> |
| ASU 2020-11 | FASB ASU 2020-11, <i>Financial Services – Insurance (Topic 944): Effective Date and Early Application</i> |
| ASU 2022-01 | FASB ASU 2022-01, <i>Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method</i> |
| Issue B31 | Derivative Implementation Group Issue B31, <i>Accounting for Purchases of Life Insurance</i> |
| Issue E22 | Derivative Implementation Group Issue E22, <i>Hedging – General: Accounting for the Discontinuance of Hedging Relationships Arising from Changes in Consolidation Practices Related to Applying FASB Interpretation No. 46 or 46(R)</i> |
| Issue H17 | Draft Derivative Implementation Group Issue H17, <i>Foreign Currency Hedges: Hedging Functional-Currency-Equivalent Proceeds to Be Received from a Forecasted Foreign-Currency-Denominated Debt Issuance</i> |
| EITF 03-11 | EITF Issue No. 03-11, <i>Reporting Realized Gains and Losses on Derivative Instruments That Are Subject to FASB Statement No. 133 and Not “Held for Trading Purposes” as Defined in Issue No. 02-3</i> |
| FIN 46 | FASB Interpretation No. 46, <i>Consolidation of Variable Interest Entities, an interpretation of ARB No. 151</i> |
| FIN 46(R) | FASB Interpretation No. 46 (revised December 2003), <i>Consolidation of Variable Interest Entities, an interpretation of ARB No. 151</i> |
| Item 305 | Securities and Exchange Commission Regulation S-K, Item 305, <i>Quantitative and qualitative disclosures about market risk</i> |
| Item 10(e) | Securities and Exchange Commission Regulation S-K, Item 10(e), <i>Use of non-GAAP financial measures in Commission filings</i> |

| Abbreviation | Full title of guidance reference |
|---------------------|--|
| Rule 144 | Securities and Exchange Commission Rule 144, <i>Selling Restricted and Control Securities</i> |
| Rule 4-08(n) | Securities and Exchange Commission Regulation S-X Rule 4-08 (n), <i>Accounting policies for certain derivative instruments</i> |
| Rule 15c6-1(a) | Securities and Exchange Commission Rule 15c6-1(a), <i>Securities Transaction Settlement Cycle</i> |
| Statement 52 | FASB Statement of Financial Accounting Standards No. 52, <i>Foreign Currency Translation</i> |
| Statement 80 | FASB Statement of Financial Accounting Standards No. 80, <i>Accounting for Futures Contracts</i> |
| Statement 133 | FASB Statement of Financial Accounting Standards No. 133, <i>Accounting for Derivative Instruments and Hedging Activities</i> |
| Statement 138 | FASB Statement of Financial Accounting Standards No. 138, <i>Accounting for Certain Derivate Instruments and Certain Hedging Activities</i> |
| Statement 149 | FASB Statement of Financial Accounting Standards No. 149, <i>Amendment of Statement 133 on Derivative Instruments and Hedging Activities</i> |
| Statement 155 | FASB Statement of Financial Accounting Standards No. 155, <i>Accounting for Certain Hybrid Financial Instruments</i> |
| SAB 109 | SEC Staff Accounting Bulletin No. 109, <i>Written Loan Commitments Recorded at Fair Value Through Earnings</i> |

E Summary of important changes

The following highlights important changes to this FRD since the September 2022 edition. In addition to the changes identified below, this publication was updated to replace references to LIBOR in our interpretive guidance and examples. However, references to LIBOR in quotations and examples that come directly from the Codification have not been replaced as this guidance has not yet been updated by the FASB.

We have also removed the effective date and transition guidance related to ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*, and ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments – Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, because these ASUs have now been adopted by all entities.

Chapter 2: Scope and definition

- ▶ Section 2.4 was amended to add interpretive guidance on the definition of a derivative.
- ▶ Section 2.5.2.2 was amended to clarify our interpretive guidance related to the requirement that a contract must physically settle in order to qualify for the NPNS scope exception from derivative accounting.
- ▶ Section 2.6.2 was amended to clarify our interpretive guidance on derivative considerations for wash sales.
- ▶ Section 2.6.3 was amended to remove detailed interpretive guidance on accounting for overallotment provisions since this guidance is included in our FRDs, *Issuer's accounting for debt and equity financings (before the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)* and *Issuer's accounting for debt and equity financings (after the adoption of ASU 2020-06, Accounting for Convertible Instruments and Contracts in an Entity's Own Equity)*.

Chapter 3: Embedded and compound derivatives

- ▶ Section 3.4 was updated for the issuance of ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*.

Chapter 4: Hedge criteria and hedge effectiveness

- ▶ Sections 4.4.3, 4.6.6, 4.6.9.2 and 4.8.2 were updated for the issuance of ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*.
- ▶ Section 4.6.4.1 was amended to clarify our interpretive guidance related to hedging benchmark interest rates.
- ▶ Section 4.6.9.1.1 was updated to address the guidance in ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, which was previously discussed in Appendix E.
- ▶ Section 4.6.9.2 was amended to update our interpretive guidance on cash flow portfolio hedges.
- ▶ Section 4.8.2.1 was amended to update our interpretive guidance on considerations for assuming perfect hedge effectiveness.
- ▶ Section 4.8.3.7 was deleted to remove interpretive guidance that is no longer deemed relevant.

Chapter 5: Fair value hedges

- ▶ Section 5.3.1 was updated for the issuance of ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*.
- ▶ Section 5.3.4A was added to address the guidance in ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, within the body of this publication. The discussion of this guidance was previously included as an appendix to this publication.
- ▶ Section 5.5 was amended to update our interpretive guidance in Example 3: Partial-term fair value hedge of fixed-rate debt using an interest rate swap designated after the issuance of the debt instrument (perfect offset).

Chapter 6: Cash flow hedges

- ▶ Section 6.4.2.2 was amended to update our interpretive guidance on hedging a contractually specified component of a nonfinancial item.
- ▶ Section 6.4.3 was amended to update our interpretive guidance regarding changes to hedged risk.
- ▶ Section 6.5 was updated for the issuance of ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*.

Chapter 7: Foreign currency hedges

- ▶ Section 7.11.3 was amended to update our interpretive guidance on net investment hedges.
- ▶ Section 7.11.4.1 was updated for the issuance of ASU 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*.
- ▶ Section 7.12 was updated to clarify our interpretive guidance related to Example 11: Accounting for a hedge of a net investment using a fixed-rate-for-fixed-rate cross-currency interest rate swap and assessing effectiveness using the spot method.

Chapter 8: Disclosures and financial statement presentation

- ▶ Sections 8.5.1.1A and 8.13.4 were added to address the guidance in ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, which was previously discussed in Appendix E.

Chapter 9: ASU 2022-01 effective date and transition

- ▶ This chapter was amended to add the effective date and transition guidance related to ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, which was previously included in Appendix E.

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