

Applying IFRS

Accounting by holders of
crypto assets

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Building a better
working world

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What you need to know

- ▶ Crypto-assets have diverse terms and conditions. The purpose for holding crypto-assets also differs among the entities, and even among business models within the same entities, that hold them. Hence, the accounting treatment will depend on the particular facts and circumstances and the relevant analysis could be complex:
 - ▶ In order to be considered cash, a crypto-asset would need to be generally accepted as a medium of exchange and considered a suitable basis on which a holder could measure and recognise all transactions in its financial statements.
 - ▶ Some contractual crypto-assets could meet the definition of a financial asset if: they entitle the holder to cash, another financial instrument, or the right to trade financial instruments under favourable terms; or they are, in effect, electronic share certificates that entitle the holder to the net assets of a particular entity.
 - ▶ Some contracts to trade crypto-assets are accounted for as derivatives, if the contract can be settled net or if the underlying crypto-asset is readily convertible to cash, despite the crypto-asset itself not being a financial instrument, provided that certain criteria are met.
 - ▶ Many crypto-assets would meet the relatively wide definition of an intangible asset. However, not all crypto-assets that meet the definition of an intangible asset are within the scope of IAS 38 *Intangible Assets*, as the standard is clear that it does not apply to items that are in the scope of another standard. For example, some entities could hold crypto-assets for sale in the ordinary course of business and, as such, would be able to recognise these as inventory. Commodity broker-traders, who acquire and sell crypto-assets principally to generate profit from fluctuations in price or broker-traders' margin, also have the option of measuring their crypto-asset inventory at fair value less costs to sell.
- ▶ The holder of crypto-assets will need to consider the general disclosures required by IAS 1 *Presentation of Financial Statements* when compliance with the specific requirements of the relevant IFRS is insufficient to enable users of financial statements to understand the impact of crypto-assets on the entity's financial position and financial performance.
- ▶ The IFRS Interpretations Committee (IFRS IC) issued an agenda decision on the accounting for cryptocurrencies (a subset of crypto-assets) in June 2019, indicating they are not financial assets but intangible assets in the scope of IAS 2 *Inventories* or IAS 38 *Intangible Assets*. The agenda decision also provided guidance on relevant disclosure requirements.
- ▶ While the International Accounting Standards Board (IASB or the Board) has not added crypto-assets to its standard-setting agenda at this stage, it is continuing to monitor the development of crypto-assets and their significance for IFRS reporters.

1. Introduction

Money has been used for centuries to facilitate the trade of goods and services. The form of money has varied between cultures, but, essentially, there are three types: commodity money; representative money; and fiat money. Commodity money has value in and of itself (intrinsic value) as well as value in its use as money (e.g., coins from precious metals, salt, tobacco, coffee and wheat). Representative money has little or no intrinsic value, but embodies a right to an underlying item of value (e.g., gold certificates and depository notes that may be swapped against a certain amount of gold or silver). Fiat money is declared to be money by a government and, therefore, derives value from being legal tender.¹

In more recent times, bitcoin was launched as a crypto-currency. Subsequently, numerous other cryptocurrencies, crypto-coins and crypto-tokens have been launched with varying purposes and levels of adoption. The European Central Bank (ECB) defines a virtual currency as “a digital representation of value, not issued by a central bank, credit institution or e-money institution, which, in some circumstances, can be used as an alternative to money”.²

Cryptocurrencies

The IFRS IC defined a cryptocurrency as a crypto-asset with all of the following characteristics: “a) a digital or virtual currency recorded on a distributed ledger that uses cryptography for security, b) not issued by a jurisdictional authority or other party, and c) does not give rise to a contract between the holder and another party”.³ Bitcoin, for example, would meet this definition. Cryptocurrencies represent a subset of crypto-assets.

As crypto-assets are still evolving, this publication will simply refer to crypto-assets when discussing the various permutations of cryptocurrencies, crypto-coins and crypto-tokens. This publication aims to provide guidance on the accounting under International Financial Reporting Standard (IFRS)⁴ by the general holders of crypto-assets, but it does not address the accounting for crypto-assets held by the original issuer. Moreover, the specific issues related to miners, crypto-exchanges (other than custodian considerations) and those resulting from initial coin offerings (ICOs) are not addressed here.

This publication also highlights observations from the IFRS IC agenda decision in June 2019 on the accounting for cryptocurrencies under existing IFRS standards.

¹ *What is money*, European Central Bank website, www.ecb.europa.eu/explainers/tell-me-more/html/what_is_money.en.html, accessed on 19 September 2019.

² *Virtual currency schemes – a further analysis*, European Central Bank website, www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf, accessed on 19 September 2019.

³ IFRIC Update June 2019 IASB website, <https://www.ifrs.org/news-and-events/updates/ifric-updates/june-2019/>, accessed on 19 September 2019.

⁴ This publication only considers IFRS and is not intended for other accounting frameworks (e.g., US GAAP).

At the time of writing, over 12,000 different cryptocurrencies, crypto-coins and crypto-tokens were traded or listed on various crypto-exchanges.

2. Overview of crypto-asset classification

At the time of writing, more than 12,000 different cryptocurrencies, crypto-coins and crypto-tokens were traded or listed on various crypto-exchanges.⁵ The terms and application of these crypto-assets vary widely and could change over time. It is important to re-evaluate the accounting as terms and conditions change.

Some crypto-assets entitle the holder to an underlying good or service from an identifiable counterparty. For example, some crypto-assets entitle the holder to a fixed weight of gold from a custodian bank. In those cases, the holder is able to obtain economic benefits by redeeming the crypto-asset for the underlying. While not money as such, these crypto-assets share many characteristics with representative money.

Other crypto-assets (e.g., bitcoin) do not entitle the holder to an underlying good or service and have no identifiable counterparty. The holder of such a crypto-asset has to find a willing buyer that will accept the crypto-asset in exchange for cash, goods or services in order to realise any economic benefits from the crypto-asset.

While an entity can directly hold its crypto-assets in its own 'wallet', it is also possible that an entity's crypto-assets are comingled in a joint or shared wallet. By directly holding a crypto-asset in its own wallet, the entity has legal ownership of the crypto-asset.

However, where a custodian (e.g., a crypto-asset broker) holds an entity's crypto-assets, or where the exchange comingles crypto-assets into one or more shared wallets, the legal ownership could rest with another party. In that case, the holder would not have exclusive title to the crypto-assets and the accounting would depend on the rights and obligations associated with the manner in which the crypto-assets are held. For example, an entity holding an economic interest in crypto-assets in the shared wallet of a crypto-asset exchange may have an indirect holding of the crypto-assets through a claim on the exchange. In this case, in addition to the underlying crypto-asset volatility, the holder would also be exposed to counterparty performance risk (i.e., the possibility that the exchange is not holding sufficient crypto-assets to cover all customer claims). Furthermore, some exchanges may restrict the holder's ability to transfer the crypto-asset to another exchange or the holder's own crypto-asset wallet. These limitations could alter the rights of the holder as they could effectively limit the holder's control over the underlying crypto-assets and the crypto-assets' potential to produce economic benefits. The holder would need to analyse carefully, among other things, its claim on the crypto-exchange in order to evaluate the nature of the assets held in order to determine the appropriate accounting treatment.

This publication is written in the context of a direct holding of crypto-assets. However, many aspects of the discussion, especially those related to financial instruments (section 3.3), prepayments (section 3.5) and intangible assets (section 3.6), are also relevant for indirect holdings of crypto-assets and rights

⁵ *Crypto Currency Market Capitalisation*, CoinMarketCap website, www.coinmarketcap.com, accessed on 24 September 2021.

to a future issuance of crypto-assets (e.g., rights under a standard agreement for future token issuance, commonly referred to as SAFT).

Some of the accounting considerations for fair value measurement and entities holding crypto-assets in a custodian arrangement are discussed in sections 3.8 and 3.10, respectively.

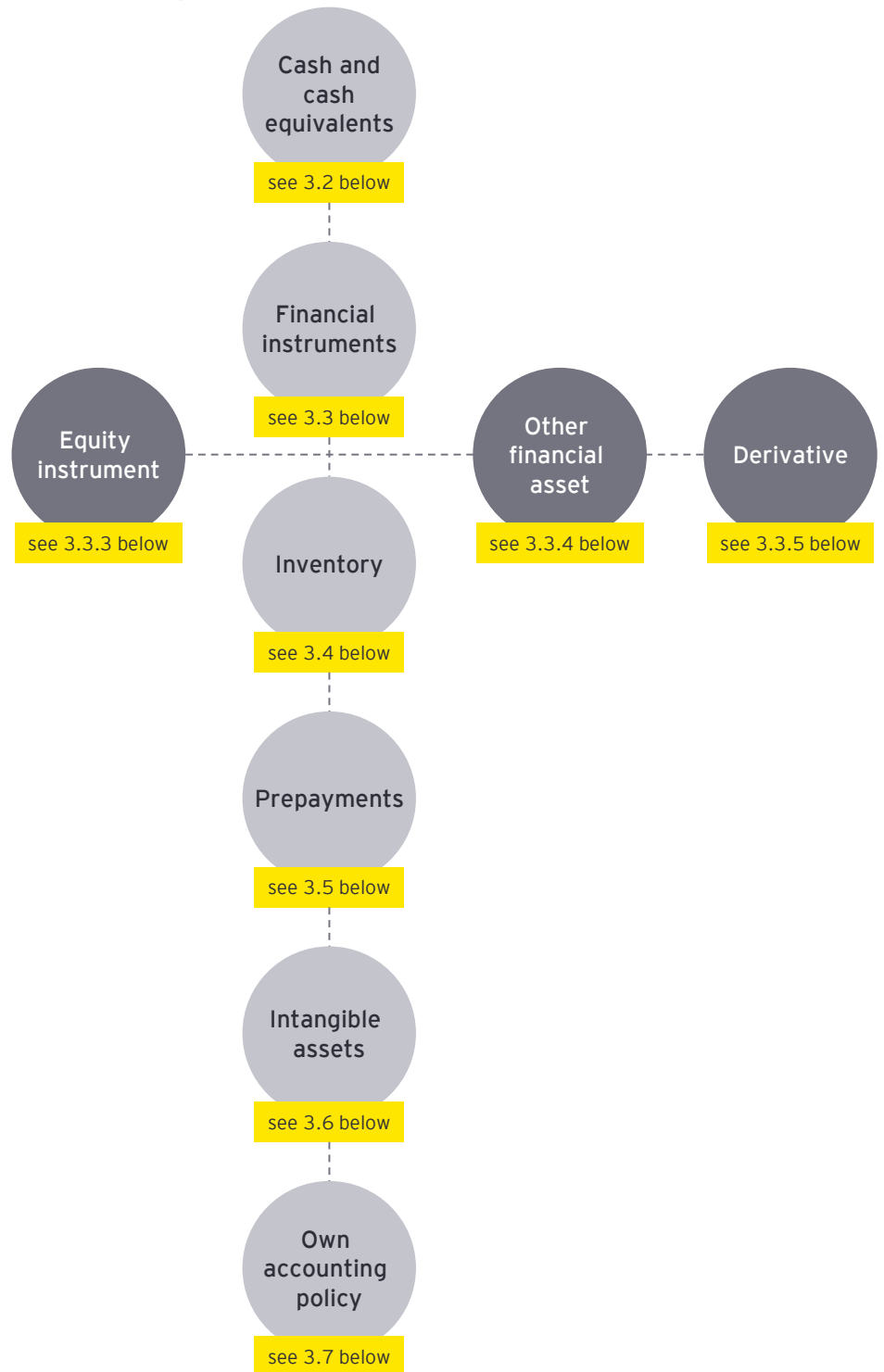
How we see it

Crypto-assets often have very different terms and conditions. The holder needs to evaluate their individual terms and conditions carefully in order to determine which IFRS applies. Depending on the standard that applies, the holder may also need to assess its business model in determining the appropriate accounting.

Determining ownership of a crypto-asset when it is held through a custodian or a crypto-exchange may present additional challenges and could impact the determination of the appropriate accounting. In addition, the rights contained in an agreement for a future token issuance could differ significantly from the benefits that a holder of the token would be entitled to if a token is ultimately issued (e.g., some SAFTs include a provision for the return of the residual capital invested if the token platform is not developed by a specified date while the token itself entails no contingent right to cash).

The diagram below aims to provide an overview of the possible classifications under current IFRS that a holder of crypto-assets should consider. Each circle in the diagram corresponds to a section in this publication that provides a detailed analysis of the relevant IFRS requirements and other considerations and is set out in the order in which we discuss the different possible accounting classifications.

Overview of crypto-asset classification



3. Considerations under IFRS

3.1 Classification and measurement

Crypto-assets have diverse terms and conditions, and the purpose for holding them also differs among holders. Hence, holders of a crypto-asset will need to evaluate their own facts and circumstances in order to determine which accounting classification and measurement under current IFRS should be applied. Depending on the standard, the holder may also need to assess its business model in order to determine the appropriate classification and measurement.

The sections below consider the definitions and other requirements for being within the scope of the various accounting standards that could apply to a crypto-asset held and the respective measurement requirements.

An inherent characteristic of a crypto-asset is that it is a digital representation and, hence, intangible by nature. The following accounting standards only apply to tangible assets and, therefore, do not apply to crypto-assets:

- ▶ IAS 16 *Property Plant and Equipment* applies to tangible items⁶
- ▶ IAS 40 *Investment Property* applies to land, a building (or part thereof), or both⁷
- ▶ IAS 41 *Agriculture* applies to most biological assets (i.e., living animals or plants) related to agricultural activity⁸

In addition, IFRS 6 *Exploration for and Evaluation of Mineral Resources* applies to exploration and evaluation expenditures incurred in the search for mineral resources (minerals, oil, natural gas and similar non-regenerative resources).⁹ Although some crypto-assets are created by a process called 'mining', IFRS 6 only applies to exploration and evaluation expenditure in connection with the search for mineral resources before extraction. Therefore, an entity should not apply IFRS 6 in accounting for crypto-assets.

This leaves the following accounting treatments to be considered for crypto-assets

- ▶ Cash and cash equivalents (see 3.2 below)
- ▶ IFRS 9 *Financial instruments* (see 3.3 below)
- ▶ IAS 2 *Inventories* (see 3.4 below)
- ▶ Prepayment assets (see 3.5 below)
- ▶ IAS 38 *Intangible Assets* (see 3.6 below)
- ▶ Developing an accounting policy under IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* (see 3.7 below)

We believe the overview in section 2 above provides a helpful roadmap for an entity to assess the classification, measurement, presentation and disclosure requirements related to crypto-assets.

⁶ IAS 16.6.

⁷ IAS 40.5.

⁸ IAS 41.5.

⁹ IFRS 6 - Appendix A, Defined terms.

3.1.1 Practical challenges

Evaluating the enforceable rights associated with the holding of a crypto-asset may present challenges. For example, the terms and conditions of a crypto-asset are generally included in the ICO document. As the offering may take place in an unregulated market, the enforceable rights associated with the holding of the crypto-asset may not be clearly explained in the ICO document. In other cases, the issuer of the crypto-assets may have wide discretion in changing those terms and conditions after their issuance without the consent of the holder. Therefore, it may be necessary to seek professional legal advice to ascertain the enforceable rights as a holder of crypto-assets.

3.2 Cash and cash equivalents

3.2.1 Cash

IFRS definition

IAS 7 *Statement of Cash Flows* defines cash as 'cash on hand and demand deposits' but IFRS does not define these terms in any further detail. IAS 32 *Financial Instruments: Presentation* notes that 'cash' is a financial asset that represents the medium of exchange. Therefore, it is the basis on which all transactions are measured and recognised in financial statements, while demand deposits generally represent deposits that can be withdrawn on demand, without prior notice or penalty.¹⁰

IAS 32 uses cash and currency interchangeably. In practice, currency is synonymous with the money, both physical and electronic, in circulation in a particular jurisdiction.

Economic definition

The ECB, International Monetary Fund and US Federal Reserve note that money has three different functions, as follows:

- ▶ Medium of exchange
- ▶ Unit of account
- ▶ Store of value¹¹

Cash, as currently presented in the financial statements, tends to be the physical holdings and demand deposits of fiat currencies issued, or supported, by the governments of various jurisdictions. Fiat currencies have little or no intrinsic value, but are generally accepted as a medium of exchange in a jurisdiction because they are supported by government and recognised as legal tender in their respective jurisdictions.

¹⁰ IAS 32.AG3.

¹¹ *What is money*, European Central Bank website, www.ecb.europa.eu/explainers/tell-me-more/html/what_is_money.en.html, accessed on 19 September 2019.

The International Use of Currencies: The U.S. Dollar and the Euro, International Monetary Fund website, www.imf.org/external/pubs/ft/fandd/1998/06/tavias.htm, accessed on 19 September 2019.

The Location of U.S. Currency: How Much Is Abroad?, The Federal Reserve System website, www.federalreserve.gov/pubs/bulletin/1996/1096lead.pdf, accessed on 19 September 2019.

Legal tender status

Legal tender status is conferred by law in a jurisdiction and is typically reserved for notes and coins issued by a central bank or an organisation authorised by the government. According to the Bank of England, legal tender has a very narrow and technical meaning: the debtor cannot be sued for non-payment if the debtor offers full payment of his or her debt in legal tender.¹² In addition, what is classified as legal tender is typically a matter of law in the specific jurisdiction. Therefore, while a crypto-asset may be accepted for payment by certain entities within a jurisdiction, it does not automatically become legal tender in that jurisdiction.

While some governments are reported to be considering issuing their own crypto-assets or supporting a crypto-asset issued by another party, at the time of writing, El Salvador is the only country that has passed legislation that treats bitcoin as legal tender (alongside US dollars).¹³

Private issuers of crypto-assets lack the authority to confer legal tender status.

Is a crypto-asset cash?

Cash is expected to be used as a medium of exchange and as the monetary unit in pricing goods or services to such an extent that it would be the basis on which all transactions are measured and recognised in financial statements (i.e., it could act as the functional currency of an entity).

IAS 32 indicates that cash represents the medium of exchange and is, therefore, the basis on which all transactions are measured and recognised in the financial statements. The description of cash in IAS 32 suggests that cash is expected to be used as a medium of exchange (i.e., used in exchange for goods or services) and as the monetary unit in pricing goods or services to such an extent that it would be the basis on which all transactions are measured and recognised in financial statements (i.e., it could act as the functional currency of an entity). Currently, it is unlikely that any crypto-asset would be considered a suitable basis for measuring and recognising all the items in an entity's financial statements.

The volume of transactions in which crypto-assets are used as a medium of exchange is currently quite low and some crypto-assets are not used as a medium of exchange at all at this stage. There are some jurisdictions where payments in bitcoin, for example, are accepted, but, currently, the acceptance of a crypto assets by a merchant is not mandated in most jurisdictions.

The price of crypto-assets is highly volatile when compared to a basket of fiat currencies. Hence, it is not surprising that there is currently little evidence of economic actors storing their wealth in crypto-assets, as opposed to speculative investments, at any significant scale.

¹² What is legal tender? The Bank of England KnowledgeBank website, <http://edu.bankofengland.co.uk/knowledgebank/what-is-legal-tender/>, accessed on 19 September 2019.
BBC News website, <https://www.bbc.co.uk/news/world-latin-america-57398274> (accessed 6 August 2021).

How we see it

We are not aware of any crypto-asset that would currently be considered cash.

If, in future periods, a crypto-asset attains such a high level of acceptance and stability that it exhibits the characteristics of cash, a holder would need to consider whether that crypto-asset represents a medium of exchange and unit of account to such an extent that it could act as the basis on which the holder recognises and measures all transactions in its financial statements (i.e., it could act as the functional currency of an entity).

3.2.2 Cash equivalents

IAS 7 defines cash equivalents as short-term, highly liquid investments that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value. IAS 7 goes on to indicate that cash equivalents are held for the purpose of meeting short-term cash commitments rather than for investment or other purposes and that an investment normally qualifies as a cash equivalent only when it has a short maturity of, say, three months or less from the date of acquisition.

Cash equivalents is a presentational category and does not dictate the recognition or measurement of the asset. Therefore, a crypto-asset would need to be classified and measured under the applicable accounting standard before it could be considered as a cash equivalent for presentation purposes.

The IFRS IC confirmed, in 2009,¹⁴ that the amount of cash that will be received must be known at the time of the initial investment in order for an instrument to meet the definition of cash equivalents.

Accordingly, crypto-assets cannot be considered cash equivalents unless they are held for meeting short-term cash commitments, have a short maturity, are subject to an insignificant risk in change of value, and the amount of cash that will be received on maturity is already known when the crypto-asset is initially acquired.

How we see it

Crypto-assets currently do not meet the definition of cash equivalents because they are generally, among others, not convertible to known amounts of cash, nor are they subject to an insignificant risk of change in value.

3.2.3 Presentation and disclosure

If, in the future, a crypto-asset were to meet the definition of cash or a cash equivalent, the holder would need to consider the presentation and disclosure requirements of IAS 7 and include the movements in its statement of cash flows.

The statement of cash flows excludes movements between items that constitute cash and cash equivalents because these are components of an entity's cash management, rather than part of its operating, investing and financing activities. Therefore, if a crypto-asset is considered a component

¹⁴ IFRIC Update July 2009 IASB website, <https://www.ifrs.org/content/dam/ifrs/supporting-implementation/agenda-decisions/ias-7-july-2009.pdf>, accessed on 19 September 2019.

of cash or a cash equivalent, movements between other cash balances and the crypto-assets will not form part of the cash flow activities.¹⁵

However, cash transactions relating to crypto-assets that are not considered cash or cash equivalents will be presented as operating, investing or financing activities in the statement of cash flows, depending on their nature.

A holder would also be required to disclose significant non-cash transactions where crypto-assets are used in payment for other goods or services.¹⁶

3.3 Financial instruments

IAS 32 defines a financial instrument as any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

3.3.1 Contractual right

The first part of the definition of a financial instrument requires the existence of a contract or contractual relationship between parties. This is emphasised in the application guidance of IAS 32, which notes assets or liabilities that originate from statutory requirements (e.g., income taxes) are not financial instruments. Similarly, whilst highly liquid, gold bullion is not a financial instrument as it does not convey a contractual right to receive cash or another financial asset.

A contract is defined by IAS 32 as an agreement between two or more parties that has clear economic consequences which the parties have little, if any, discretion to avoid, usually because the agreement is enforceable by law.¹⁷ Contracts may take a variety of forms and need not be in writing.

The use of blockchain or distributed ledger technology does not automatically give rise to a contractual relationship between parties. On the one hand, crypto-assets that entitle the holder to underlying goods, services or financial instruments provided by an identifiable counterparty could meet the definition of a contract. On the other hand, crypto-assets that do not entitle the holder to underlying goods, services or financial instruments and have no identifiable counterparty would not meet the definition of a contract. For example, the individual parties involved in the bitcoin blockchain do not have a contractual relationship with any other participant in the bitcoin blockchain. That is, by virtue of owning a bitcoin, the holder does not have an enforceable claim on bitcoin miners, exchanges, holders or any other party. Such holders need to find a willing buyer in order to realise economic benefits from holding their bitcoin.

Crypto-assets that are not contractual themselves could still be the subject of a contract, for example, a binding agreement to buy bitcoin from a certain counterparty would constitute a contract, even though the bitcoin itself does not represent a contractual relationship. Therefore, agreements entered into 'off the chain' to buy or sell crypto-assets could be contracts as defined above.

Crypto-assets, that are not contractual themselves, could still be the subject of a contract between parties entered into 'off the chain'.

¹⁵ IAS 7.9.

¹⁶ IAS 7.43.

¹⁷ IAS 32.13.

How we see it

Holders of crypto-assets need to consider carefully whether the terms and conditions of their crypto-assets give rise to a contract. In the absence of a contract, a crypto-asset is not a financial instrument.

3.3.2 *Financial asset or prepayment?*

The second part of the definition of a financial instrument requires that a financial instrument gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity. So in order to be a financial instrument, a crypto-asset will need to represent a financial asset for the holder.

IAS 32 defines a financial asset as any asset that is:

- ▶ Cash;
- ▶ An equity instrument of another entity;
- ▶ A contractual right:
 - ▶ To receive cash or another financial asset from another entity; or
 - ▶ To exchange financial assets or financial liabilities with another entity under conditions that are potentially favourable to the entity;

Or

- ▶ A contract that will or may be settled in the entity's own equity instruments when certain other criteria are met.¹⁸

In the context of crypto-assets, a financial asset could be: cash (see 3.2 above); an equity instrument of another entity; a contractual right to cash or other financial assets; or a right to trade financial instruments on potentially favourable terms (e.g., a derivative).

The sections below analyse whether a crypto-asset might meet the definition of a financial asset, other than cash, by considering each of these options in turn.

Crypto-assets that entitle the holder to underlying goods or services provided by an identifiable counterparty, despite being contractual, would not meet the definition of financial assets as the future economic benefit is obtained from the receipt of a good or services rather than the right to cash or another financial asset.¹⁹ For example, a crypto-asset that entitles the holder to cloud computing services, even if contractual, would not be a financial asset as the future benefit is a service rather than the right to a financial asset. Holders of such crypto-assets should evaluate the appropriate accounting based on the relevant IFRS standard. The discussion related to prepayments (section 3.5 below) and intangible assets (section 3.6 below) could also be relevant.

Whether a contractual right exists for the holder of the crypto-asset to receive underlying goods and services may require a careful examination of the specific facts and circumstances and the enforceability of the contract.

¹⁸ Refer to IAS 32.11(d) for further details.

¹⁹ IAS 32.AG11

Although the value of a crypto-asset may correlate to the popularity of an underlying platform on which it is used, that, by itself, does not represent a contractual right to a residual interest in the net assets of the platform.

3.3.3 Equity instrument

IFRS defines an equity instrument as any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Hence, a crypto-asset that conveys such contractual rights would, in substance, be an electronic share certificate and as a result a financial asset.

Even if a crypto-asset gave rise to a variable stream of cash flows, that would not automatically mean that it met the definition of an equity instrument. For example, a crypto-asset that entitles the holder to a share of the gross royalty stream on an intangible asset (e.g., an online game) would not be an equity instrument. Additionally, a constructive obligation on the part of the issuer of a crypto-asset does not give rise to a contractual right to a residual interest that qualifies as an equity instrument for the holder. Finally, although the value of a crypto-asset may be correlated to the popularity of an underlying platform on which it is used, that by itself does not represent a contractual right to a residual interest in the net assets of the underlying platform (i.e., it is not an equity instrument).

How we see it

A crypto-asset is only an equity instrument under IFRS if it embodies a contractual right to a residual interest in the net assets of a particular entity.

Equity instruments held are initially recorded at fair value, without adjusting for transaction fees, and, subsequently, measured as at fair value through profit or loss under IFRS 9. However, the holder of equity instruments that also meet the definition of equity from the perspective of the issuer, but are not held for trading, may make an irrevocable election, on initial recognition, to present subsequent fair value changes in other comprehensive income, without recycling. In such a case, the fair value on initial recognition is adjusted for attributable transaction fees.²⁰

3.3.4 Contractual right to cash or another financial asset

A crypto-asset, that is not an equity instrument (see 3.3.3 above) or a derivative (see 3.3.5 below) would still meet the definition of a financial asset if it is both contractual and embodies a right to receive cash or another financial asset. For example, a crypto-asset that entitles the holder to a cash payment, or the delivery of bonds or shares would meet the definition of a financial asset. In such cases, the crypto-asset would, in effect, be akin to a digital deposit slip, which exposes the holder to the economic risk on the underlying financial asset as well as counterparty risk.

Such a crypto-asset will be subject to the IFRS 9 classification and measurement requirements. All financial assets are initially recorded at fair value plus attributable transaction costs, apart from those subsequently measured at fair value through profit or loss, in which case, the transaction costs should be expensed as incurred.

Subsequent measurement depends on the cash flow characteristics of the asset and the business model in which it is held. Financial assets, aside from equity instruments (discussed at 3.3.3 above), which fail the solely payment of

²⁰ This election is not available for contingent consideration recognised by an acquirer in a business combination under IFRS 3 *Business Combinations*.

principal and interest (SPPI) cash flow characteristics test, as well as those held for trading, are measured at fair value through profit or loss. The business model in which they are held drives the measurement of financial assets that do meet the SPPI test. Those in a 'held to collect' business model are measured at amortised cost under IFRS 9. While those in a 'held to collect and sell' business model are measured at fair value through other comprehensive income, with subsequent recycling to profit or loss on derecognition. IFRS 9, however, allows a holder to designate a financial asset, despite meeting the SPPI cash flow characteristics test, as at fair value through profit or loss, on initial recognition, if doing so reduces or eliminates an accounting mismatch.

3.3.5 *Derivative*

IFRS 9 defines a derivative as a financial instrument or other contract within the scope of IFRS 9 with all three of the following characteristics:

- ▶ Its value changes in response to the change in a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index of prices or rates, credit rating or credit index, or other variable, provided that, in the case of a non-financial variable, the variable (sometimes called the 'underlying') is not specific to a party to the contract
- ▶ It 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
- ▶ It is settled at a future date

Therefore, a derivative can originate from either a financial instrument or another contract, provided that contract is in the scope of IFRS 9. These other contracts are discussed below.

Some contractual rights to buy or sell non-financial items that can be settled net in cash, or for which the non-financial items are readily convertible to cash, are accounted for as if they were financial instruments (i.e., a derivative). This does not apply to 'own-use'²¹ contracts, unless these are designated as at fair value through profit or loss on initial recognition in accordance with paragraph 2.5 of IFRS 9. The holder of such a right should consider whether it meets all three of the characteristics of a derivative, discussed above, and, if so, account for that right as a derivative.

A contractual right to buy or sell crypto-assets (e.g., a bitcoin forward entered into with an investment bank) could be a derivative even if the crypto-asset itself is not a financial instrument, provided the crypto-asset is readily convertible to cash or the contract can be settled net in cash. This is similar to the accounting for commodity contracts that are held in a trading business model (e.g., forward oil contracts may fall within the scope of IFRS 9, although oil itself is not a financial instrument).

Measurement

Derivatives are initially recorded at fair value and subsequently measured at fair value through profit or loss, without any deduction for sale or disposal costs. However, for a derivative designated as a hedging instrument in a cash flow hedge, the fair value movements relating to the effective hedge

²¹ This refers to those contracts that were entered into and continue to be held for the purpose of the receipt or delivery of a non-financial item in accordance with the entity's expected purchase, sale or usage requirements as discussed in IFRS 9.2.4.

portion are recorded in other comprehensive income until the hedged item affects profit or loss.

How we see it

An entity will need to evaluate a contractual right to buy or sell crypto-assets that can be settled net or where the underlying crypto-asset is readily convertible into cash, to determine whether the contract is within the scope of IFRS 9 and, therefore, should be accounted for as a derivative.

However, a gross-settled contract to buy or sell a non-financial crypto-asset, which is not traded in an active market, would not be in the scope of IFRS 9 as the crypto-asset would not be readily convertible into cash.

3.3.6 *Presentation and disclosure*

Holders of crypto-assets that qualify as financial instruments (e.g., financial assets, equity instruments or derivatives) will need to comply with the requirements of IFRS 7 *Financial Instruments: Disclosures*, including the risk disclosures and the disclosures required by IFRS 13 *Fair Value Measurement* for recurring fair value measurements.

3.4 Inventory

Although it is often assumed to be the case, IAS 2 does not require inventory to be tangible. The standard defines inventory as an asset:

- ▶ Held for sale in the ordinary course of business;
- ▶ In the process of production for such sale; or
- ▶ In the form of materials or supplies to be consumed in the production process or in the rendering of services.

Crypto-assets could be held for sale in the ordinary course of business, for example, by a commodity broker-trader. Whether crypto-assets are held for sale in the ordinary course of business would depend on the specific facts and circumstances of the holder. In practice, crypto-assets are generally not used in the production of inventory and, thus, would not be considered materials and supplies to be consumed in the production process.

IAS 2 does not apply to financial instruments (see section 3.3). Thus, where a crypto-asset meets the definition of a financial instrument, it should be accounted for as such under IFRS 9, rather than as inventory under IAS 2.

Normally, IAS 2 requires measurement at the lower of cost and net realisable value. However, commodity broker-traders who acquire and sell crypto-assets principally to generate profit from fluctuations in price or broker-traders' margin have the choice to measure their crypto-asset inventories at fair value less costs to sell.

3.4.1 *Cost or lower net realisable value*

The costs of purchased crypto-asset inventories would typically comprise the purchase price, irrecoverable taxes and other costs directly attributable to the acquisition of the inventory (e.g., blockchain processing fees). Other costs are included in the cost of inventories only to the extent that they are incurred in bringing the crypto-asset inventories to their present location and condition. The cost of inventory excludes anticipated selling costs as well as storage expenses (e.g., costs of holding a wallet or other crypto-account), unless

storage between production stages is necessary in the production process, which is unlikely to apply to crypto-assets.

Net realisable value is defined in IAS 2 as the estimated selling price in the ordinary course of business less the estimated cost of completion and the estimated cost necessary to make the sale.

The cost of crypto-assets recorded as inventory may not be recoverable if those crypto-assets have become wholly or partially obsolete (due to a declining interest in the crypto-asset or its application) or if their selling prices have declined. Similarly, the cost of crypto-asset inventory may not be fully recoverable if the estimated costs to sell them have increased.

An entity holding crypto-asset inventory will need to estimate the net realisable value at each reporting period. Where this is below cost, the inventory should be written down to its net realisable value with the write-down being recorded in profit or loss. A previous write-down of inventory is reversed when circumstances have improved, but the reversal is limited to the amount previously written down so that the carrying amount never exceeds the original cost.

How we see it

Estimating the selling costs for crypto-assets classified as inventory may present challenges for a holder as these selling costs can fluctuate significantly depending on the current demand for processing on the particular blockchain.

This can be illustrated by reference to the bitcoin blockchain, where the average transaction fee in December 2017 was above US\$ 55 compared with an average of just below US\$ 2.4 at the time of writing.

A broker-trader that measures its inventory at fair value less costs to sell should include any changes in the recognised amount in profit or loss for the period.

3.4.2 Fair value less costs to sell

As noted above, commodity broker-traders may also measure their commodity inventories at fair value less costs to sell. Broker-traders are those who buy or sell commodities for others or on their own account. When these commodities are principally acquired with the purpose of selling in the near future and generating a profit from fluctuations in price or broker-traders' margin, they can be classified as commodity inventory at fair value less costs to sell.

DigitalX Limited, in its consolidated financial statements for the year ended 30 June 2020, explained its accounting policies for digital assets under the inventory methodology. AASB 102 *Inventory* is the equivalent of IAS 2 in Australia.

Extract from DigitalX Limited's 2020 annual report

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 30 JUNE 2020 (Extract)

D. CAPITAL & RISK MANAGEMENT (Extract)

D4 - DIGITAL ASSETS (Extract)

Digital Assets - Accounted for using inventory methodology

For digital assets that meet the criteria of AASB102: Inventory, the Group measures digital assets at its fair value less costs to sell, with any change in fair value less costs to sell being recognised in profit or loss in the period of the change. Amounts are derecognised when the Group has transferred substantially all the risks and rewards of ownership. As a result of the various blockchain protocols, costs to sell are immaterial in the current period and no allowance is made for such costs.

Digital assets are derecognised when the Group disposes of the inventory through its trading activities or when the Group otherwise loses control and, therefore, access to the economic benefits associated with ownership of the digital asset.

When a broker-trader measures its inventory at fair value less costs to sell, any changes in the recognised amount should be included in profit or loss for the period.²² A broker-trader holder of a crypto-asset will need to estimate the costs to sell the crypto-asset at each reporting date, taking into consideration the transaction cost on the relevant blockchain and other fees required in order to convert the crypto-asset into cash. These fees could fluctuate significantly from period to period, depending on the current demand for processing on the relevant blockchain.

Measuring fair value without an active market could be challenging for a crypto-asset that does not entitle the holder to an underlying good or service from an identifiable counterparty. As the crypto-asset is only able to generate cash flows through a sale to a third party, an entity may need not be able to use a market approach and may need to use less observable inputs if there is no active market. See further discussion on fair value consideration in section 3.8.

3.4.3 *Presentation and disclosure*

Entities that classify crypto-assets as inventory would need to disclose: the carrying amount by class; the entity's accounting policy for measuring inventory; the amount of inventory recognised as an expense in the period, any write-downs and reversal of write downs to net realisable value that were recognised in profit or loss; and the reason for the reversal.²³

Commodity broker-traders holding crypto-assets as inventory at fair value less costs to sell will need to disclose the carrying amount of such inventories carried at fair value less costs to sell, in addition to the general IAS 2 requirements. The disclosure requirements under IFRS 13 would also apply.

²² IAS 2.3(b).

²³ IAS 2.36-39.

3.5 Prepayments

A prepayment is an asset recorded where an entity has paid for goods or services before delivery of those goods or services.²⁴ As prepayments entitle an entity to future goods or services rather than a right to cash, financial assets or a right to trade financial instruments on favourable terms, they are not financial assets. However, where a crypto-asset entitles the holder to buy or sell an underlying asset that is readily convertible to cash, the derivative guidance (section 3.3.5 above) could be relevant.

A crypto-asset that entitles the holder to a future good is more akin to an electronic voucher. An entity's intention, and business model, would be relevant in determining the appropriate accounting for such a 'voucher'. If the entity does not intend to hold on to the crypto-asset in order to take delivery of the underlying good, accounting for it as a prepayment would generally not be appropriate and the intangible asset guidance (section 3.6 below) should be considered.

Measurement

There is very limited guidance in IFRS on accounting for prepayments. In practice, prepayments are often recognised at cost and are subject to impairment testing under IAS 36 *Impairment of Assets*.

Given the limited guidance in IFRS, an entity will need to develop an accounting policy and apply it consistently to similar items and across reporting periods (see section 3.7).

How we see it

If the only feasible way of realising the economic benefits of a crypto-asset is by accepting subsequent delivery of the underlying goods or services, the holder could account for it as a prepayment. However, if the holder could also realise economic benefits by trading the crypto-asset, the holder should evaluate its business model. If an entity intends to trade the crypto-asset, it would generally not be appropriate to account for it as a prepayment.

3.5.1 Presentation and disclosure

There are no specific disclosure requirements for prepayments in IFRS. The holder of crypto-assets classified as prepayments should look to the general guidance provided in IAS 1 in order to determine the appropriate level of disclosure that would be required in the circumstances.

3.6 Intangible assets

IAS 38 defines an asset as "a resource controlled by an entity as a result of past events; and from which future economic benefits are expected to flow to the entity". Intangible assets form a sub-section of this group and are further defined as "an identifiable non-monetary asset without physical substance".²⁵

IAS 21 *The Effects of Changes in Foreign Exchange Rates* states that "the essential feature of a non-monetary item is the absence of a right to receive (or an obligation to deliver) a fixed or determinable number of units of

²⁴ IAS 38.70.

²⁵ IAS 38.8.

currency". A crypto-asset that does not meet the definition of cash or a financial instrument would generally be a non-monetary asset.

3.6.1 Definition of intangible asset

The IASB considers that the essential characteristics of intangible assets are that they:

- ▶ Are controlled by the entity
- ▶ Will give rise to future economic benefits for the entity
- ▶ Lack physical substance
- ▶ Are identifiable

An item with these characteristics is classified as an intangible asset regardless of the reason why an entity holds that asset.²⁶

Control - Control is the power to obtain the future economic benefits of an item while restricting the access of others to those benefits. Control is normally evidenced by legal rights, but IAS 38 is clear that they are not required where the entity is able to control access to the economic benefits in another way. IAS 38 notes that, in the absence of legal rights, the existence of exchange transactions for similar non-contractual items can provide evidence that the entity is nonetheless able to control the future economic benefits expected.²⁷

Future economic benefits - Many crypto-assets do not provide a contractual right to economic benefits. Instead, economic benefits are likely to result from a future sale, to a willing buyer, or by exchanging the crypto-asset for goods or services.

Lacks physical substance - As crypto-assets are digital representations, they are by nature without physical substance.

Identifiable - In order to be identifiable, an intangible asset needs to be separable (capable of being sold or transferred separately from the holder) or result from contractual or other legal rights. As most crypto-assets can be freely transferred to a willing buyer, they would generally be considered separable. Similarly, crypto-assets that result from contractual rights would generally be considered separable.

How we see it

Crypto-assets generally meet the relatively wide definition of an intangible asset, as they are identifiable, lack physical substance, are controlled by the holder and give rise to future economic benefits for the holder.

Intangible assets should be accounted for under IAS 38, except when they are within the scope of another standard.

3.6.2 Scope of IAS 38

Intangible assets should be accounted for under IAS 38, except when they are within the scope of another standard (e.g., crypto-assets that meet the definition of a financial asset under IAS 32 or crypto-assets held for sale in the ordinary course of business under IAS 2). The accounting for crypto-assets outside the scope of IAS 38 is discussed in sections 3.2 to 3.6 above.

²⁶ IAS 38.BC5.

²⁷ IAS 38.16.

IAS 38 notes that exclusions from its scope may occur if activities or transactions are so specialised that they give rise to accounting issues that may need to be dealt with in a different way. The standard goes on to state that it does not apply to the accounting for expenditure on the exploration for, or development and extraction of, oil, gas and mineral deposits in extractive industries and the accounting for insurance contracts.

However, this exclusion is generally restricted to extractive activities and insurance contracts. Therefore, without further standard setter guidance, a holder should not assume these specific exclusions extend to crypto-assets.

3.6.3 Recognition requirements

An intangible asset is only recognised if it is probable that future economic benefits will flow to the entity and its cost can be measured reliably. Separately acquired intangible assets will normally be recognised as IAS 38 assumes that the acquisition price reflects the expectation of future economic benefits. Thus, an entity always expects future economic benefits, for these intangibles, even if there is uncertainty about the timing or amount.

3.6.4 Initial measurement

Intangible assets are initially measured at cost. The cost of acquiring crypto-assets would typically include the purchase price (after deducting trade discounts and rebates, if any) and the related transaction costs, which could include blockchain processing fees. Where an intangible asset is acquired in exchange for another non-monetary asset, the cost is measured at fair value, unless the transaction lacks commercial substance or the fair value of neither the asset acquired nor the asset given up can be measured reliably. In such instances, the cost of the intangible asset is measured as the carrying amount of the asset given up.

3.6.5 Subsequent measurement requirements

There are two subsequent measurement approaches under IAS 38 that can be applied as an accounting policy choice to each class of intangible asset, namely:

- ▶ Cost model
- ▶ Revaluation model (subject to criteria as discussed below)

An entity that holds different types of crypto-assets would need to assess whether they constitute different classes of intangible assets as the rights and underlying economics of different crypto-assets vary widely.

3.6.5.1 Cost model

The cost method under IAS 38 entails subsequent measurement at cost less any amortisation and impairment.

Useful life and amortisation

Many crypto-assets such as bitcoin do not have an expiry date, and there appears to be no foreseeable limit to the period over which they could be exchanged with a willing counterparty for cash or other goods or services.

A holder will therefore need to consider if there is a foreseeable limit to the period over which such a crypto-asset is expected to generate net cash inflows for the entity. If there is no foreseeable limit, such a crypto-asset could be

considered to have an indefinite²⁸ useful life and, as a result, no amortisation is required. However, indefinite useful life intangible assets need to be tested for impairment at least annually and whenever there is an indication of impairment.

Where there is a foreseeable limit to the period over which a crypto-asset is expected to generate net cash inflows for the holder, a useful life should be estimated and the cost of the crypto-asset, less any residual value, should be amortised on a systematic basis over this useful life. In addition, such a crypto-asset is also subject to IAS 36 impairment testing whenever there is an indication of impairment.

Impairment and impairment reversal

When impairment testing determines that an intangible asset is impaired, the holder is required to write down the carrying amount of the intangible asset to its recoverable amount and to record the write-down in profit or loss for the period.

In later periods, the holder would need to evaluate whether there is an indication that an impairment loss may no longer exist (or that the loss may have decreased) and if so, determine the recoverable amount. IAS 36 allows the holder to record an impairment reversal provided the updated carrying amount does not exceed the asset's original cost less the amortisation that would have been recorded had no previous impairment been recognised.

3.6.5.2 Revaluation model

An entity can only apply the revaluation model if the fair value can be determined by reference to an active market, which is defined by IFRS 13 as "a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis."

There are no provisions in IAS 38 that allow for the fair value of an intangible asset to be determined indirectly,²⁹ for example, by using valuation techniques and financial models with less observable inputs such as those applied to estimate the fair value of intangible assets acquired in a business combination. Consequently, if no observable price in an active market for an identical asset exists (i.e., a Level 1 price under IFRS 13), the holder will need to apply the cost method to crypto-assets held.

There are no provisions in IAS 38 that allow for the fair value of an intangible asset to be determined indirectly. If no Level 1 price exists, the holder will need to apply the cost method to the crypto-asset held.

How we see it

Entities need to consider the guidance in IFRS 13 to determine whether the market is active for their crypto-assets. Many trades on crypto-exchanges are non-cash transactions in which one crypto-asset is exchanged for another and the holder may find it difficult to convert the crypto-asset into cash (see section 3.8).

Under the revaluation model, intangible assets are measured at their fair value on the date of revaluation less any subsequent amortisation and impairment losses.

The net increase in fair value over the initial cost of the intangible asset is recorded in the revaluation reserve via other comprehensive income. A net

²⁸ Not to be confused with an infinite useful life (IAS 38.91).

²⁹ IAS 38.75 and IAS 38.81-82

decrease below cost is recorded in profit or loss. The cumulative revaluation reserve may be transferred directly to retained earnings upon derecognition, and possibly by transferring the additional amortisation on the revalued amount to retained earnings as the asset is used, but IAS 38 does not allow the revaluation reserve to be transferred via profit or loss.

3.6.6 Presentation and disclosure

Holders of crypto-assets classified as intangible assets under IAS 38 will need to disclose, by class, a reconciliation between the opening and closing carrying amounts, whether the useful life is assessed as indefinite, and, if so, the reasons supporting the indefinite useful life assessment, and a description of individually material holdings.³⁰

Entities that measure intangibles under the revaluation model will also need to disclose, by class, the effective date of the revaluation, a reconciliation of the opening and closing balance of the related revaluation surplus and the carrying amount that would have been recognised had the cost model been applied.³¹ As the revaluation model requires a recurring fair value measurement, the relevant disclosure requirements of IFRS 13 would also apply.³²

3.7 Own accounting policy

IAS 8 requires that when an IFRS specifically applies to a transaction, other event or condition, the accounting policy applied to that item should be determined by applying that IFRS and considering any relevant implementation guidance issued by the IASB.³³ For example, if a crypto-asset has been appropriately assessed to be an intangible asset subject to IAS 38, the holder is required to apply IAS 38 in accounting for that crypto-asset. In such cases, it would generally not be appropriate to analogise to another standard such as IAS 40 or the financial instruments literature under IFRS 9.

However, in the absence of a standard that specifically applies to a transaction, event or condition, the accounting hierarchy in IAS 8 allows an entity to use its judgement in developing an accounting policy that results in information that is:

- ▶ Relevant to the economic decision-making needs of users
- ▶ Reliable, in that the financial statements:
 - ▶ Represent faithfully the financial position, financial performance and cash flows of the entity
 - ▶ Reflect the economic substance of transactions, other events and conditions, and not merely the legal form
 - ▶ Are neutral, i.e., free from bias
 - ▶ Are prudent
 - ▶ Are complete in all material respects³⁴

In making this judgement, management is required to consider the following sources in descending order:

³⁰ IAS 38.118-123.

³¹ IAS 38.124-125.

³² IFRS 13.81-99.

³³ IAS 8.7.

³⁴ IAS 8.10.

- ▶ The requirements and guidance in IFRS dealing with similar and related issues
- ▶ The definitions, recognition criteria and measurement concepts for assets, liabilities, income and expenses in the *Conceptual Framework for Financial Reporting* within IFRS³⁵

Management may also consider the most recent pronouncements of other standard-setting bodies that use a similar conceptual framework to develop accounting standards, other accounting literature and accepted industry practices, to the extent that these do not conflict with the sources above.³⁶

How we see it

Where no other standard applies and an entity develops its own accounting policy for a crypto-asset held under the IAS 8 hierarchy, the entity needs to consider if the guidance in IFRS dealing with similar and related issues and the relevant definitions and recognition criteria in the Conceptual Framework would preclude it from being recognised as an asset. In that case, the cost incurred in obtaining the crypto-asset should be expensed as incurred.

3.8 Fair value consideration

As discussed elsewhere in this publication, some crypto-assets are measured at fair value or measured based on fair value (e.g., fair value less costs to sell). Under IFRS 13, a fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date in current market conditions. It also assumes that the transaction to sell the asset or transfer the liability takes place in the principal market for the asset or liability or, in the absence of a principal market, in the most advantageous market for the asset or liability.³⁷ The principal market is the one with the greatest volume and level of activity for the asset or liability, while the most advantageous market is one that maximises the amount that would be received to sell the asset or minimise the amount that would be paid to transfer the liability, after taking into account transaction costs and transport costs.³⁸ An entity need not undertake an exhaustive search of all possible markets to identify the principal market or, in the absence of a principal market, the most advantageous market, but it is required to take into account all information that is reasonably available.³⁹

Measurement of the fair value of crypto-assets presents a number of challenges. Crypto-assets trade on many crypto-exchanges including platforms that are not regulated exchanges. The quality of information on the transaction volume and price varies widely across markets. Another challenge is that some crypto-exchanges focus on exchanging different types of crypto-assets for one another, rather than the sale or purchase of crypto-assets with cash consideration as these cash transactions are illiquid. It is not always clear to what extent such transactions have commercial substance. Therefore, it may be more difficult for an entity to determine the principal (or most advantageous) market and assess whether transactions are orderly. Another issue is that

³⁵ IAS 8.11.

³⁶ IAS 8.12.

³⁷ IFRS 13.15 and 16.

³⁸ IFRS 13. Appendix A.

³⁹ IFRS 13.17.

prices for crypto-assets are volatile and may fluctuate considerably. It is important for entities to understand how an exchange determines the quoted price, which may omit transactions that are considered anomalous or otherwise irregular, in order to appropriately assess whether or not such a quoted price is consistent with the concept of fair value under IFRS 13.

How we see it

When an entity measures its crypto-assets at fair value (or based on fair value), it needs to carefully evaluate the comprehensive guidance under IFRS 13, including that related to the definition of fair value, application of valuation techniques and inputs to valuation techniques.

3.9 Events after the reporting period

IAS 10 requires an entity to disclose details of any material non-adjusting events, including information about the nature of the event and an estimate of its financial effect (or a statement that such an estimate cannot be made).⁴⁰ For example, an entity holding crypto-assets would consider whether subsequent changes in the fair value of those holdings are so significant that lack of disclosure could influence the economic decisions that users of financial statements make on the basis of the financial statements.

3.10 Crypto-assets held by a custodian

Crypto exchanges and other institutions regularly hold crypto-assets in a custodian capacity. This raises the question of whether the client should recognise the crypto-assets or a right to receive the crypto-assets (or the related benefits from the crypto-assets) from the custodian in its financial statements under IFRS. Similarly, the custodian needs to evaluate whether the crypto-assets should be recognised in its financial statements.

The terms and conditions for such arrangements can vary widely. For example, some exchanges retain all client crypto-assets in central wallets and only allow for clients to realise their crypto holdings through sale in exchange for a fiat currency. While some custodian service providers keep the client's crypto-assets in a unique cold storage wallet for which the entity retains the private key. Yet certain crypto-wallet providers may simply facilitate movement of crypto-assets between clients' wallets and the private key for each client is retained on the client's device. Given the variety of arrangements, it is impossible to generalise as to the appropriate accounting treatment.

The evaluation of whether the client or custodian recognises the crypto-assets in its statement of financial position can be complex and will depend on the facts and circumstance of each situation. Similar to the more traditional custodians of client money, the assessment should focus on whether the custodian is subject to substantial risks and rewards incidental to ownership of the assets under its control. The assessment requires careful consideration of the terms of a custodian's agreement with its clients, the laws governing the jurisdiction(s) in which the custodian operates and how the custodian manages and stores the crypto-assets.

⁴⁰ IAS 10.21.

The following factors should be considered when determining the appropriate accounting treatment:

- ▶ Local laws and regulations
- ▶ Analysis of which party has legal title to the crypto-assets
- ▶ The status of the crypto-assets in the event of the custodian's insolvency (i.e., are the crypto-assets available to general claims from the custodian's creditors in the event of bankruptcy)
- ▶ The contractual limitations on the use and transfer of the crypto-assets by the custodian, including whether the custodian is required to keep matching holdings of crypto-assets at all times
- ▶ Whether the arrangement allows for comingling of client and custodian crypto-assets (i.e., Is the custodian required to keep its clients' crypto-assets into a different digital wallet from its own crypto-assets)
- ▶ Whether there are requirements imposed on the custodian regarding appropriate record keeping and internal controls (e.g., the custodian is required to maintain separate records of transactions and holdings of crypto-assets for each depositor)
- ▶ Whether the agreement with the client makes it clear that the custodian is holding the crypto-assets in the capacity of an agent
- ▶ Whether the access to clients' crypto-assets require a multi-signature authorisation by both the client and the custodian
- ▶ whether the custodian bears the security risk (i.e., is the custodian obligated to reimburse the client for any crypto-assets lost in a security breach)
- ▶ Which party is entitled to the benefit in the case of a hard fork (e.g., when Bitcoin cash split off from the main bitcoin blockchain)

How we see it

A custodian will need to carefully consider the terms and conditions of the arrangement with its clients that controls access to the crypto-asset holdings, as well as the legal and regulatory environment in which the custodian operates, to determine the appropriate accounting for the client crypto-assets held.

Disclosure by holders of crypto-assets will be driven by the disclosure requirements of the IFRS standards that are applied in accounting for them. The general disclosure requirements in IAS 1 and the events after the reporting period disclosures in IAS 10 could also be relevant.

3.11 Presentation and disclosure

Disclosure by holders of crypto-assets will be driven by the disclosure requirements of the IFRS standards that are applied in accounting for them. The sections above illustrate selected disclosure requirements specific to each classification and measurement in more detail. Below, the general IAS 1 requirements that could be relevant to the holder of crypto-assets are discussed. Our *International GAAP® Disclosure Checklist* assists preparers in complying with the presentation and disclosure requirements of IFRS in their interim and year-end IFRS financial statements. Refer to the latest edition of this tool on EY's *IFRS Core Tools* webpage for the comprehensive list of presentation and disclosure requirements under IFRS.⁴¹ Holders of crypto-

⁴¹ EY's Core Tools are available on https://www.ey.com/en_gl/ifrs-technical-resources/igaap-disclosure-checklist-for-annual-financial-statements-ifrs-in-issue-at-31-august-2021.

assets need to consider materiality when determining what disclosures are required in their specific circumstances, as well as when to aggregate amounts on the face of the financial statements and in the notes. An entity should not obscure material information with immaterial information or aggregate material items that have different natures or functions as this will reduce the understandability of the financial statements.⁴²

3.11.1 Additional general disclosures

In addition to the disclosure requirements of the IFRS standard applied for classification and measurement, the holder of crypto-assets will need to consider the general requirements of IAS 1. A holder of crypto-assets must provide additional disclosures when compliance with the specific requirements of the relevant IFRS is insufficient to enable users to understand the impact of crypto-assets on the entity's financial position and financial performance.

Paragraph 29 of IAS 1, for example, would require material balances of crypto-assets to be presented separately on the face of the statement of financial position and material gains or losses from transactions in, or revaluation of, such assets to be presented separately in the statement of comprehensive income.⁴³

Due to the unique features and characteristics of crypto-assets, a holder will need to disclose the accounting policies applied and the key judgements made in accounting for different classes of crypto-assets.⁴⁴

Other relevant disclosures that could be useful in evaluating the impact of crypto-assets on the financial performance and financial position of an entity include: the description and quantity of the various crypto-assets held; their historical volatility; and the entity's reason for holding those particular crypto-assets.

It is worth noting that an entity cannot rectify inappropriate accounting policies by disclosure. For example, an entity would not be able to justify measuring an intangible asset at fair value through profit or loss by disclosing this as their accounting policy and providing additional notes and explanatory material.⁴⁵

How we see it

Holders need to use judgement in providing sufficiently detailed quantitative and qualitative disclosures to enable users of financial statements to understand the impact of holding crypto-assets on their financial position, financial performance and cash flows.

⁴² IAS 1.30A.

⁴³ IAS 1.55, IAS 1.85 and IAS 1.97.

⁴⁴ IAS 1.117-122.

⁴⁵ IAS 1.18.

4 Application of IFRS to various categories of crypto-assets

As there are currently more than 12,000 types of crypto-assets in issue with a wide variety of terms and conditions, it is necessary to carefully evaluate how each feature of a crypto-asset affects the accounting by the holder. Sections 4.1 and 4.2 below discuss the accounting for holding cryptocurrencies and stablecoins, two major categories of crypto-assets, with specific features.

4.1 Cryptocurrencies

The IFRS IC published an agenda decision in June 2019 on the application of IFRS standards to a holding of cryptocurrencies. The IFRS IC noted in its agenda decision that it is not aware of any cryptocurrency that is used as a medium of exchange or as the monetary unit in pricing goods or services to such an extent that it would be the basis for which all transactions are measured and recognised in financial statements. Consequently, a holding of cryptocurrency is not cash because cryptocurrencies do not currently have the characteristics of cash.

The IFRS IC concluded that cryptocurrencies are not financial assets and they meet the definition of an intangible asset and are, therefore, in the scope of IAS 38, or IAS 2, if held for sale in the ordinary course of business.

The IFRS IC observed that a holding of cryptocurrency meets the definition of an intangible asset under IAS 38 as it is capable of being separated from the holder and sold or transferred individually, and is not a monetary asset (i.e., it does not give the holder a right to receive a fixed or determinable number of units of currency). The IFRS IC concluded that holdings of cryptocurrencies should be accounted for under IAS 38 unless they are held for sale in the ordinary course of business, in which case, IAS 2 would apply. A commodity broker trader of cryptocurrencies would be able to measure its cryptocurrency inventories at fair value less costs to sell. The agenda decision also provides guidance on the disclosure requirements within existing IFRS standards that would be relevant to holdings of cryptocurrencies.⁴⁶

Refer to section 5 on the standard-setting activity carried out by the IASB.

Wisdom Tree Issuer X Limited, in its annual financial statements for the period from inception to 31 December 2020 disclosed its accounting policy on the accounting for digital assets, as shown below:

⁴⁶ *IFRIC Update, June 2019*, IFRS Foundation website, www.ifrs.org/news-and-events/updates/ifric-updates/june-2019, accessed on 19 September 2019.

Notes to the financial statements

1. General information

...

Currently the Company is offering securities that provide exposure to Bitcoin (through holdings of Bitcoin), however the Prospectus also includes securities providing exposure to Ethereum which may be launched at a later date.

...

2. Accounting policies

Digital Assets

The Company holds Digital Assets equal to the amount due to holders of Digital Securities solely for the purposes of meeting its obligations under the Digital Securities.

Whilst the IFRS Interpretation Committee issued an agenda decision on the accounting for cryptocurrencies in June 2019, there is no one standard under IFRS which details how digital currencies are to be accounted for. Following a review of the facts and circumstances, the directors have determined that the Digital Assets fall within the scope of IAS 38 Intangible Assets. Furthermore the directors have determined to account for Digital Assets under the IAS 38 revaluation model being it's fair value on the basis there is an active market for the transfer and sale of the Digital Assets that the Company holds. The Digital Assets are held to provide the security holders with the exposure to changes in the fair value of Digital Assets and therefore the Directors consider that carrying the Digital Assets at fair value reflects the objectives and the purpose of holding the asset.

Digital Assets are priced on a daily basis based on the amount of the Digital Assets held using the relevant Quoted Price, and is considered to be the fair value of the Digital Assets. Also on a daily basis an amount is reclassified to Digital Assets held in respect of the Management Fee.

Issue and Redemption

Upon initial recognition and the receipt of Digital Assets, they are recorded at fair value using the Quoted Price.

Upon redemption of Digital Securities and the transfer out of Digital Assets, the attributable cost shall be calculated in accordance with the average cost methodology, and the overall cost reduced accordingly to represent the de-recognition of the Digital Assets. Any previously recognised gains on the Digital Assets de-recognised as a result of the transfer are reclassified to retained earnings.

Extract from WisdomTree Issuer X Limited's audited annual financial report for the period from inception to 31 December 2020 (cont'd)

Subsequent Measurement

An increase in fair value is recorded first through Profit or Loss in respect of any previous impairment recognised being reversed, with any further gains being recognised through Other Comprehensive Income.

A decrease in fair value is recorded first through Other Comprehensive Income in respect of any previous gains recognised being reversed, with any further impairment being recognised through Profit or Loss.

The main difference between a stablecoin and a cryptocurrency is the mechanism designed to minimise price volatility by linking the value of the stablecoin to that of a more traditional asset such as fiat currency.

4.2 Stablecoins

Stablecoins are typically cryptocurrencies that are pegged to a reference asset.⁴⁷ The main difference between a stablecoin and a cryptocurrency is the mechanism designed to minimise price volatility by linking the value of the stablecoin to that of a more traditional asset such as fiat currency.⁴⁸ The appropriate accounting for stablecoins depends on the specific rights and obligations associated with the holding of the crypto-asset, especially any potential redemption rights held by the holder.

Example 1- Accounting for stablecoins with redemption rights

Fact pattern:

Company A issues S-coins to third party investors. S-coins are similar to cryptocurrencies except that each S-coin is backed by an ounce of physical gold. Any S-coins are redeemable any time at the option of the holder for cash at the prevailing market price of the gold.

Analysis:

A contract exists between Company A and any holder of S-coins as there is an enforceable agreement between the parties on the rights and obligations associated with the stablecoins. A holder of S-coins is contractually entitled to receive cash at the prevailing market price of the gold from Company A by exercising the redemption right. Therefore, S-coins meet the definition of a financial asset under IAS 32 from the holder's perspective and are accounted for as a financial instrument under IFRS 9 (see section 3.3.4).

The above example reflects the simple scenario with the full collateralisation of the stablecoins with physical gold. The accounting for the stablecoins would be different, for example, if the collateral were another type of cryptocurrency or it were only partially collateralised such that there is no cash redemption option (or no redemption option) for the holder. In practice, when analysing the terms

⁴⁷ *Stablecoins and the Future of Money*. Harvard Business Review website, <https://hbr.org/2021/08/stablecoins-and-the-future-of-money>, accessed on 12 August 2021).

⁴⁸ *Accounting for and auditing of digital assets*. Association of International Certified Professional Accountants website, <https://www.aicpa.org/content/dam/aicpa/interestareas/informationtechnology/downloadable/ocuments/accounting-for-and-auditing-of-digital-assets.pdf>, accessed on 13 August 2021.

and conditions associated with stablecoins, attention should also be paid to situations where only some holders (e.g., qualified financial institutions or holders in certain jurisdictions) are eligible for redemption or the issuer may refuse redemption requests under specific circumstances. If the redemption is at the sole discretion of the issuer, then the stablecoin does not embody a right to receive cash or another financial asset and, thus, may not meet the definition of a financial asset.

How we see it

The terms and conditions related to the redemption rights of stablecoins could be complex and the white paper prepared for the ICO could be vague in this area. An evaluation of such features may require a thorough understanding of the legal positions of the parties involved.

5 IASB activity

Various standard setters are monitoring the development of crypto-assets and the related accounting practices by holders. Some standard setters have undertaken research into the accounting for crypto-assets, while some have expressed a view on what they consider to be appropriate accounting. This section considers the activity of the IASB.

The Accounting Standards Advisory Forum (ASAF) of the IASB discussed the topic of 'digital currencies' in December 2016 based on a paper prepared by the Australian Accounting Standards Board. The paper indicates a need for standard setting activity that addresses the use of 'digital currencies'. It notes that the possible classification of digital currencies is currently limited to inventory and intangible assets and that, aside from the commodity inventory of broker-traders, current IFRS requirements do not permit digital currencies to be measured at fair value through profit or loss which, in their view, would provide the most relevant and useful information.⁴⁹ Some members of the ASAF voiced their support for a wider project to address the issue of measuring certain intangibles at fair value through profit or loss. However, it was suggested that, while the IASB should monitor the development of digital currencies, the Board should not add the topic to its agenda at this stage.⁵⁰

At the January 2018 IASB meeting, the Board discussed some transactions involving specific types of commodities, digital currencies and emissions allowances that might form part of its research agenda. Specifically, the Board considered the fact that these transactions typically involve items held for investment purposes or used in a similar way to cash.⁵¹

In April 2018, the ASAF, among others, discussed the prevalence of digital currencies in ASAF members' jurisdictions and provided advice to the IASB on the potential standard-setting projects to consider.⁵²

In July 2018, the IASB decided to ask the IFRS IC to consider how an entity might apply existing IFRS standards in determining its accounting for holdings of cryptocurrencies and ICOs.⁵³

In September 2018, the IFRS IC discussed the application of current IFRS standards to the holdings of cryptocurrencies and ICOs as well as the possibility of standard setting activity by the IASB.⁵⁴

In November 2018, the Board decided not to add a project on holdings of cryptocurrencies or ICOs to its work plan, but instead, that it would monitor

⁴⁹ *Digital currency - A case for standard setting activity*, The Australian Accounting Standards Board website, https://www.aasb.gov.au/admin/file/content102/c3/AASB_ASAF_DigitalCurrency.pdf, accessed on 19 September 2019.

⁵⁰ *Summary note of the Accounting Standards Advisory Forum meeting, December 2016*, IFRS Foundation archive website, <http://archive.ifrs.org/Meetings/Pages/ASAF-meeting-December-2016.aspx>, accessed on 19 September 2019.

⁵¹ *IASB Update, January 2018*, IFRS Foundation website, www.ifrs.org/news-and-events/updates/iasb-updates/january-2018, accessed on 19 September 2019.

⁵² *Summary note of the Accounting Standards Advisory Forum meeting, April 2018*, IFRS Foundation website, www.ifrs.org/-/media/feature/meetings/2018/april/asaf/asaf-summary-april-2018.pdf, accessed on 19 September 2019.

⁵³ *IASB Update, July 2018*, IFRS Foundation website, www.ifrs.org/news-and-events/updates/iasb-updates/july-2018, accessed on 19 September 2019.

⁵⁴ *IFRIC Update, September 2018*, IFRS Foundation website, www.ifrs.org/news-and-events/updates/ifric-updates/september-2018, accessed on 19 September 2019.

the development of crypto-assets. The Board asked the IFRS IC to consider publishing an agenda decision on how entities apply existing IFRS standards to holdings of cryptocurrencies.⁵⁵

After further discussions, the IFRS IC issued an agenda decision in June 2019 on how an IFRS reporter should apply existing IFRS standards to its holdings of cryptocurrencies, a subset of crypto assets. The Committee observed that a holding of cryptocurrency meets the definition of an intangible asset under IAS 38 as it is capable of being separated from the holder and sold or transferred individually, and is not a monetary asset (i.e., does not give the holder a right to receive a fixed or determinable number of units of currency). The IFRS IC concluded that holdings of cryptocurrencies should be accounted for under IAS 38 unless they are held for sale in the ordinary course of business, in which case, IAS 2 would apply. A commodity broker trader of cryptocurrencies would be able to measure its cryptocurrency inventories at fair value less costs to sell.

In March 2021, the IASB released its *Third Agenda Consultation*. The objective of the agenda consultation is to gather views on: (a) the strategic direction and balance of the Board's activities; (b) the criteria for assessing the priority of financial reporting issues that could be added to the work plan; and (c) new financial reporting issues that could be given priority in the Board's work plan. Prior to the release of the document, the IASB performed an outreach, in which stakeholders raised further concerns that the accounting required by IAS 38 for cryptocurrencies may not provide useful information, because the economic characteristics of cryptocurrencies are similar to cash or other financial instruments, rather than to intangible assets and, therefore, cryptocurrencies should be measured in fair value. The agenda decision published by IFRS IC in June 2019 may be too narrow in scope and some stakeholders suggested that the Board develops educational materials or amends IFRS standards to provide specific requirements for direct holdings of cryptocurrencies as well as other related transactions, such as indirect holdings of cryptocurrencies or ICOs.⁵⁶ Cryptocurrencies and related transactions have been included in the consultation document as one of the financial reporting issues that could be addressed in a potential project.

Cryptocurrencies and related transactions have been included in the consultation document as one of the financial reporting issues that could be addressed in a potential project.

Next steps

As the development of crypto-assets is still at an early stage, holders should continue to monitor the standard setter activities, as well as the guidance issued by regulators in order to ensure they are appropriately accounting for the crypto-assets held under IFRS.

⁵⁵ IASB Update, November 2018, IFRS Foundation website, www.ifrs.org/news-and-events/updates/iasb-updates/november-2018, accessed on 19 September 2019. *Third Agenda Consultation*. IFRS Foundation website, <https://www.ifrs.org/content/dam/ifrs/project/third-agenda-consultation/rfi-third-agenda-consultation-2021.pdf>, accessed on 10 September 2021.

Appendix: Summary of important changes to this publication

We have made important changes to this publication since the September 2019 edition, to address evolving issues and expand our discussion of certain topics. The list below summarises the most significant changes we made in this September 2021 update.

Section 3 Considerations under IFRS

- ▶ Expanded discussion on the practical challenges to evaluate the enforceable rights to the holder
- ▶ Presentation and discussion considerations now accompany each subsection of the accounting topic where appropriate
- ▶ Expanded discussion on fair value consideration

Section 4 Application of IFRS to various categories to crypto-assets

- ▶ Illustrations of application of IFRS to cryptocurrencies and stablecoins

Section 5 IASB activity

- ▶ Focus on the standard-setting development by the IASB on crypto-assets

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