Fallback language

Addressing the legal and contractual challenges of IBOR transition

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The legal remediation strategy associated with the transition will influence firms' client outreach and communication approach; operational readiness; and, ultimately, product transition strategy.

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Executive summary

The London Interbank Offered Rate (LIBOR)[1] has been used extensively as a reference rate in a range of financial products and instruments for more than 40 years – exposure to LIBOR is estimated to be more than $400 trillion.[2] The Financial Conduct Authority (FCA) announced that it would not compel banks to submit LIBOR quotations after 2021.[3] With the heightened risk of imminent discontinuation of LIBOR, financial market participants are accelerating their efforts to transition from LIBOR to Alternate Reference Rates (ARRs). This transition is expected to be one of the most significant changes for the financial services industry. The unprecedented scale of this industry-wide transition will pose considerable challenges, including potential financial, legal, operational, conduct and reputation risk.

This article provides an overview of legal and contractual challenges, including fallback language, its relevance in Interbank Offered Rate (IBOR) transition, and what firms can do to address this as the date approaches.

What is fallback language and why is it important for the IBOR transition?

Fallback language refers to the contractual provisions that lay out the process through which a replacement rate can be identified if a benchmark (e.g., USD LIBOR) is not available. In other words, the fallback language within a contract acts as a how-to guide for identifying replacement rates (hereafter referred to as benchmark replacements or replacement rates) should the original benchmark be unavailable.

Fallback language comprises three key components: fallback trigger event, benchmark replacement and benchmark replacement adjustment. In addition to the fallback language, firms will need to consider other key contractual features that may impact the IBOR transition, including maturity date, firm's role in the contract, benchmark use, amendment and consent provision, governing law and jurisdiction and force majeure provisions.

Robust fallback language is required in financial contracts to enable a smooth transition in the event of a benchmark cessation event. By robust, we mean language that offers an unambiguous and actionable path to benchmark replacement, which is likely not the language found in most contracts today.

We see many challenges with historical fallback language. Typically, it was written to provide an interim solution should a rate be temporarily unavailable, rather than considering a permanent benchmark cessation. Even more concerning, fallback language often lacks clarity in selecting replacement rates and can result in economically undesirable outcomes and conduct and legal risk.

Language also varies between derivatives and cash products and, even further, between different cash products. This variation drives uncertainty, so firms may be faced with a contract-level review to determine how to remediate impacted transactions.

To address this, industry bodies are working to develop robust fallback provisions for IBOR-referencing transactions. For over-the-counter (OTC) derivatives, the International Swaps and Derivatives Association (ISDA) plans to amend the ISDA 2006 Definitions – or all new transactions once implemented. ISDA will also provide a protocol for counterparties to implement robust fallback language for legacy transactions. For cash products, national working groups, such as the US Alternative Reference Rates Committee (ARRC), have published proposed fallback language to implement in new transactions referencing IBOR.

IBOR transition strategy across new products and legacy transactions

The IBOR transition strategy can be segregated into (1) the readiness to offer new products, instruments and services referencing ARRs, such as the secured overnight financing rate (SOFR) for USD LIBOR, and (2) the remediation of legacy transactions referencing IBORs that mature after 2021.

First, to facilitate a smooth and orderly transition and proactively manage business and competitive risks, firms should be able to offer new products, instruments and services referencing ARRs in a timely manner and in line with evolving market conventions. Robust fallback language should also be introduced into new transactions referencing ARRs at the outset to ensure that these transactions are not exposed to the same benchmark cessation risks in the future.

Second, for all legacy transactions or contracts with references to IBORs that mature after 2021, firms should define a clear transition strategy and road map. Depending on the transaction, client segment, contract type and provisions, transition strategies may include sale or exit, repricing (modifying the benchmark rate from an IBOR to an ARR, with an appropriate spread adjustment), amendment of fallback language or no action.

Third, robust fallback language must be introduced for all new transactions referencing IBORs to cap the potential legal and conduct risk that continues to be introduced with each new IBOR-based transaction.

And, finally, firms should systematically capture and store fallback language for all legacy and new transactions and confirm that the fallback language can be used by operational systems in the event of a cessation event (referred to as operationalizing fallback language).

Based on our analysis, a Global Systemically Important Bank (GSIB) may have more than 250,000 contracts with references to IBORs that are likely to mature post-2021, in addition to several thousand other contracts with indirect IBOR exposure (e.g., a penalty clause in supplier agreements).[4] The volume of documents can increase significantly when considering activities such as servicing, where firms may not have direct financial exposure but play an important operational role in IBOR contracts. It is estimated that legal and contract remediation for IBOR transition may cost more than $50 million and would require enterprise-wide contract discovery, digitization, term extraction, repapering, client outreach and communication capabilities.

Document intelligence solutions may offer a means of conducting this extensive review and cataloguing of contracts in an automated or semi-automated manner via technology such as optical character recognition (OCR) and artificial intelligence/machine learning (AI/ML). Solutions can be deployed to digitize vast numbers of contracts into machine-readable formats, extract relevant terms via customizable business logic and interpret those terms into a structured data set for consumption. When faced with thousands or hundreds of thousands of impacted contracts, document intelligence solutions can significantly reduce document review and processing time, resulting in cost savings for firms.

Moreover, capturing and operationalizing fallback language may require changes across more than 200 internal and vendor applications.

The legal remediation strategy associated with the transition will influence firms' client outreach and communication approach; operational readiness; and, ultimately, product transition strategy. The inability to address contractual challenges may result in adverse consequences for financial market participants, including financial, legal, conduct and reputation risk.

What can firms do now?

1. Actively monitor and participate in fallback language consultations and product conventions led by national and industry working groups

2. Implement robust fallback language (transition event, benchmark rate and spread adjustment) in all new cash transactions referencing IBORs and ARRs

3. Verify readiness to implement robust fallback language for derivatives based on ISDA's Benchmark Supplement (EU BMR) and IBOR fallback amendment to the 2006 ISDA Definitions (expected Q4 2019)

4. Identify all impacted contracts, develop an inventory of those referencing IBORs and consolidate impacted contracts to one or more contract repositories for analysis, remediation and repapering (if needed)

5. Source a representative sample of contracts referencing IBORs and assess the strength of fallback language in legacy transactions by contract type, product and client segment – assessment should help prioritize remediation efforts

6. Assess potential financial, legal and conduct risk due to permanent cessation of IBORs, including non-adherence to the ISDA protocol by specific client segments and the impact of differences in fallback language between cash and derivatives

7. Assess the feasibility of leveraging technology solutions to digitize and extract fallback language for all legacy transactions referencing IBORs, thus reducing manual effort up to 75%

8. Define a legal remediation, product transition and client outreach and communication strategy based on fallback language and consent provisions, product type and client segment for all legacy transactions maturing post-2021

9. Systemically extract and store fallback language at the point of inception (new client or contract) for all new transactions in a legal data repository

10. Identify impacted systems (internal and third party) and develop detailed business requirements for system updates to operationalize fallback language in the event of an IBOR cessation
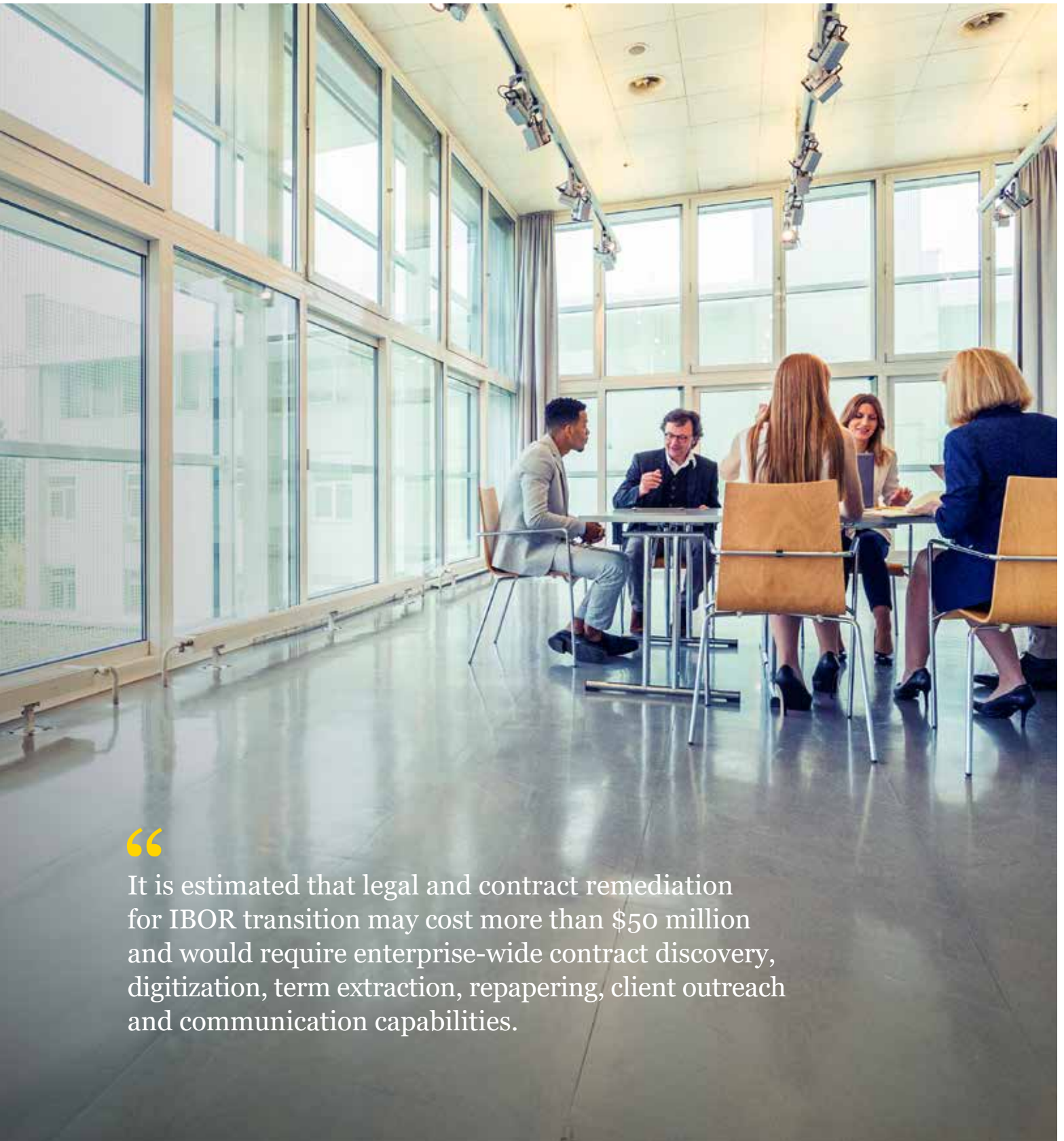
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It is estimated that legal and contract remediation for IBOR transition may cost more than $50 million and would require enterprise-wide contract discovery, digitization, term extraction, repapering, client outreach and communication capabilities.

What is fallback language and why is it important for the IBOR transition?

Fallback language definition

As previously highlighted, fallback language refers to the contractual provisions that lay out the process through which a replacement rate can be identified if a benchmark is not available.

Fallback language comprises three key components

Fallback trigger event: outlines the circumstances that enact the need for benchmark replacement (e.g., LIBOR is not available)

Benchmark replacement: outlines the path to identifying the replacement rate

Benchmark replacement adjustment: identifies any spread adjustment to account for differences between the original rate and the replacement rate (e.g., to account for differences between term IBOR rates and overnight ARRs and to account for the fact that IBORs include bank credit risk premiums whereas ARRs do not)

Robust fallback language is required in financial contracts to ensure a smooth transition in the event of a benchmark cessation event.

Key contractual provisions relevant for interpreting fallback language

In addition to the fallback language itself, firms will need to consider other key contract features that may have an impact for the IBOR transition:[5]

Maturity date: contractual maturity date, which will be integral to narrowing the population of IBOR-impacted contracts to those that mature post-2021.

Role: firm's role in the contract (e.g., issuer, servicer, lender, counterparty, calculation agent, note holder), which will determine rights and responsibilities with regard to fallback language and amendments. For example, the calculation agent may be responsible for executing the terms of the fallback language, whereas a note holder may have voting privileges with regard to contractual amendments.

Benchmark use: how the benchmark is used in the contract (e.g., interest payment and prepayment penalty).

Amendment/consent provisions: provisions outlining the process by which an agreement may be amended, including relevant parties and any associated timelines. For example: "such [replacement rate] amendment shall become effective so long as [Agent] shall not have received, within five (5) Business Days, written notice that [Lender] objects to such amendment."

Governing law and jurisdiction: the governing law of the agreement (e.g., English Law) and jurisdiction and venue in which the counterparties have agreed to settle disputes.

Force majeure provisions: provisions describing any unforeseeable circumstances that would prevent parties from fulfilling contractual obligations.

Additional considerations beyond contractual provisions

Firms need to have a strong understanding of the above contractual provisions to assess the legal implications of the IBOR transition on their portfolios. In addition to contractual provisions, firms should also consider the following:

Scope of document types: Firms often have strict definitions of what is considered to be a legal contract. For example, a derivative trade confirmation – although a binding agreement between counterparties – may not fall within a narrow definition of a legal contract and may not be stored in a document repository, in contrast to an ISDA master agreement governing trades between two parties.

For the purposes of the IBOR transition, firms should consider a broad definition of IBOR contracts, including, but not limited to:

▸ Documents governing transactions that directly reference IBORs

▸ Documents that reference IBORs in any other contractual provisions (e.g., penalty clause)

▸ Documents governing intercompany transactions that may be linked to IBORs

▸ Documents governing services that may be linked to IBORs (e.g., servicing of IBOR-referencing assets)

Note that throughout this document, contract is defined broadly as any document that governs an IBOR-referencing transaction or otherwise contains IBOR provisions.

Linked contracts: firms will need to consider relationships between linked contracts, such as contracts within a document set, contracts associated through linked products (e.g., hedging) and amendments:

▸ Document sets: contracts that are linked as part of a document set (e.g., an ISDA master agreement, credit support annex and derivative trade confirmations) are important to understand and identify as it may be the case that an amendment to the master agreement will supersede provisions in other ancillary agreements thereby remediating the document set.

▸ Linked products: identifying and assessing contracts that are linked due to a financial arrangement (e.g., hedging relationship) will be crucial to enabling a harmonized transition, as mismatches in remediation strategy and timing between the contracts could lead to hedge ineffectiveness or basis risk for the client or financial institution.

▸ Amendments: the ability to link amendments to original contracts is critical to understanding which contractual provisions take precedence and limiting duplication of efforts (e.g., reducing the possibility that an original and amended contract both be reviewed for the same transaction).

What is fallback language and why is it important for the IBOR transition?

Figure 1: Fallback language example

Extract of fallback language
Three-month LIBOR means the rate (expressed as a percentage per annum) for deposits in US dollars for a three-month period commencing on the first day of a Dividend Period that appears on the Reuters Screen LIBOR01 Page as of 11:00 a.m. (London time) on the LIBOR Determination Date for that Dividend Period. If such rate does not appear on Reuters Screen LIBOR01 Page, Three-month LIBOR will be determined on the basis of the rates at which deposits in United States dollars for a three-month period … are offered to prime banks in the London interbank market by four major banks in the London interbank market selected by the Calculation Agent … If at least two such quotations are provided, Three-month LIBOR with respect to that Dividend Period will be the arithmetic mean … of such quotations. If fewer than two quotations are provided, Three-month LIBOR with respect to that Dividend Period will be the arithmetic mean … of the rates quoted by three major banks in New York City selected by the Calculation Agent … However, if fewer than three banks selected by the Calculation Agent to provide quotations are quoting as described above, three-month LIBOR for that Dividend Period will be the same three-month LIBOR as determined for the previous Dividend Period.

Breakdown of language
The fallback language referenced above is representative of two key themes across historical fallback language – namely, (1) the language does not consider a permanent cessation of the benchmark and (2) there is uncertainty in the benchmark replacement.

The fallback language can be broken down as follows. Note that this excerpt does not contain a benchmark spread adjustment.

	Extract	Explanation
Benchmark replacement waterfall	If such rate does not appear on Reuters Screen LIBOR01 Page	**Trigger event 1:** LIBOR is not available on the designated source (e.g., Bloomberg screen).
	LIBOR will be determined on the basis of the rates at which deposits in United States dollars for a three-month period … are offered to prime banks in the London interbank market by four major banks in the London interbank market selected by the Calculation Agent	**Benchmark replacement 1:** Agent requests that four major banks in the London interbank market provide quotes. In the event of LIBOR cessation, panel banks may not be willing to provide LIBOR quotations, which would render this fallback ineffective and trigger the next benchmark replacement waterfall.
	If fewer than two quotations are provided	**Trigger event 2:** Agent is unable to obtain sufficient quotes from major banks in the London interbank market.
	Three-month LIBOR with respect to that Dividend Period will be the arithmetic mean … of the rates quoted by three major banks in New York City selected by the Calculation Agent	**Benchmark replacement 2:** Agent requests the same of three banks in New York City. In the event of LIBOR cessation, panel banks may not be willing to provide LIBOR quotations, which would render this fallback ineffective and trigger the next benchmark replacement waterfall.
	if fewer than three banks selected by the Calculation Agent to provide quotations are quoting as described above	**Trigger event 3:** Agent is unable to obtain sufficient quotes from major banks in New York City.
	Three-month LIBOR for that Dividend Period will be the same Three-month LIBOR as determined for the previous Dividend Period	**Benchmark replacement 3:** LIBOR remains fixed at the previous period's rate. In the event of LIBOR cessation, this benchmark replacement logic would result in the contract converting from a floating to a fixed rate instrument, as it would continue to reference the last available LIBOR (i.e., one fixed rate period over period).
It is important to note that not all contracts contain fallback language – and those that do may not offer clear guidance or may lead to adverse economic impacts, legal uncertainty and operational impediments to payments and settlements, as discussed in the following section.		

What are the key challenges associated with fallback language today?

Overarching challenges with historical fallback language

There is a high likelihood that LIBOR will no longer be an eligible benchmark post-2021, though the exact timing is unclear. As the transition approaches, continued origination of IBOR-referencing contracts without robust fallback language that provides a clear path to benchmark replacement will increase firms' legal risk. Overarching challenges with existing fallback language include the following:

1. Fallback language was not written to contemplate permanent benchmark cessation; rather, it was written to provide an interim path forward should a rate be temporarily unavailable (e.g., technology outage).

2. Language often lacks clarity in benchmark replacement selection, particularly in the event of a permanent benchmark cessation, and can result in economically undesirable outcomes for one or more parties to the contract.

3. Fallback language differs between derivatives and cash products and, further, between different types of cash products. Inconsistency across products and the industry leads to further uncertainty and may necessitate detailed contract-level analysis to understand the appropriate transition strategy.

4. Fallback triggers also vary widely across products, which will most likely lead to mismatches in the timing of transition from a benchmark to its replacement rate.

5. Fallback language is not systematically captured in systems, meaning that the language cannot be readily found and operationalized without directly reviewing the contract itself.

6. Enacting or amending fallback language may not be easily feasible for contracts with multiple parties and consent provisions. For example, selection of a replacement rate for a floating rate note may require majority or unanimous consent from note holders – which is likely not attainable in practice.

Notwithstanding the above, it is worth noting that some clients may wish to rely on current fallback language, if they feel it is reasonable or beneficial (e.g., allowing a contract to convert to a fixed rate). In these instances, firms will need to consider the implications of enacting existing fallbacks to the risk profile of the client and transaction.

Current state fallback language for derivatives

Over-the-counter derivatives

Fallback language for over-the-counter derivatives today typically falls under (1) a version of the ISDA Definitions (e.g., 2006 ISDA Definitions), via reference in an ISDA master agreement, or (2) a regional master agreement.[6] As ISDA is currently leading industry efforts toward derivative fallback language reform, the below will focus on ISDA's current language.

The ISDA Definitions consist of hundreds of benchmark rate definitions. Existing fallback language, as shown in Figure 2, does not consider a permanent benchmark discontinuation event and does not identify a non-IBOR benchmark replacement, but rather calls for a poll of reference banks to determine a substitute IBOR quotation.

As ISDA has summarized: "If an IBOR has been permanently discontinued, it is likely that major dealers would be unwilling and/or unable to give such quotations. Even if quotations were available in the near-term after the permanent discontinuation, it is unlikely that they would be available for each future reset date over the remaining tenor of long dated contracts. It is also likely that quotations could vary materially across the market."[7]

Figure 2: ISDA derivative fallback example for USD-LIBOR-BBA

Extract of fallback language
"USD-LIBOR-BBA" means that the rate for a Reset Date will be the rate for deposits in US dollars for a period of the Designated Maturity which appears on the Telerate Page 3750 Page … If such rate does not appear on the Telerate Page 3750 Page, the rate for that Reset Date will be determined as if the parties had specified "USD-LIBOR-Reference Banks" as the applicable Floating Rate Option.
"USD-LIBOR-Reference Banks" means that the rate for a Reset Date will be determined on the basis of the rates at which deposits in U.S. Dollars are offered by the Reference Banks … to prime banks in the London interbank market for a period of the Designated Maturity commencing on that Reset Date and in a Representative Amount (as defined in the ISDA Definitions). The LIBOR Calculation Agent will request the principal London office of each of the Reference Banks to provide a quotation of its rate. If at least two such quotations are provided, the rate for that Reset Date will be the arithmetic mean of the quotations. If fewer than two quotations are provided as requested, the rate for that Reset Date will be the arithmetic mean of the rates quoted by major banks in New York City.

Cleared derivatives

Under the current rule book of the London Clearing House (LCH), benchmarks are determined as laid out in the 2000 or 2006 ISDA Definitions, as applicable. However, the LCH's current fallback language differs in that it is permitted, at its sole discretion, to determine a replacement rate should a benchmark cease to be available.[8]

The Chicago Mercantile Exchange (CME) Group has also noted that should standard fallback language be exhausted, the exchange would be empowered to "establish a final settlement price that reflects the true market value at the time of final settlement" (likely in line with industry-accepted fallback language at that time).[9]

Current state fallback language for cash products

Current fallback language for cash products varies significantly based on product type, contract originator and even origination date, as industry practices have evolved over time. Below are common types of language aligned to product types, with commentary outlining key challenges.

Figure 3: Illustrative fallback language across product types

Product type	Illustrative fallback language	Explanation and challenges
Bilateral business loan	[If LIBOR is] no longer provided by Bloomberg LP ... such rate as shall be determined in good faith by the Holder from such sources as it shall determine to be comparable to Bloomberg LP (or any successor)	Lender consults an alternative source to obtain LIBOR. If LIBOR cannot be ascertained, fallback language does not offer further guidance, which may result in contract frustration.
Residential mortgage	If the Index is no longer available, the Note Holder will choose a new index which is based upon comparable information	Mortgage Note Holder has unilateral discretion to select a replacement rate. Although this discretion would allow for a smoother identification of replacement rates, there is a risk that borrowers will contest the new rate.
Syndicated loan	[If] the LIBO Rate cannot be determined ... any pending request for a borrowing of, conversion to or continuation of LIBO Rate Loans ... will be deemed to have converted ... into a request for [an Alternate Base Rate] Loan	Agent determines that LIBOR cannot be ascertained and converts outstanding borrowings to an alternate base rate (non-LIBOR) loan (e.g., the higher of prime and federal funds rates). While this language results in an unambiguous, non-LIBOR replacement rate, the replacement rate may be unfavorable to impacted parties.

As with derivatives, fallback language for cash products was historically written to address a temporary unavailability of the benchmark. The degree of variability and uncertainty in benchmark replacement selection means that market participants could face significant risk of payment delays or contract frustration operating under existing language.

Further, there may be inherent litigation risk associated with those contracts that either (1) allow for one party's discretion in determining replacement rates or (2) result in a replacement rate that is unfavorable to one or more parties.

Relying on ambiguous or economically unfavorable fallback language can open firms up to litigation or conduct risk.

The way ahead for fallback language

Industry momentum

Due to the challenges outlined in the previous section, global regulatory bodies, led by the Financial Stability Board (FSB), have highlighted the need for fallback language enhancements under the broader movement of interest rate benchmark reform. This push can be seen in publications such as the IOSCO Principles for Financial Benchmarks (2013) and EU Benchmark Regulation (BMR) (2016), which provide additional impetus for fallback language reform.[10]

The EU BMR has specifically required in-scope entities to include robust fallback language outlining actions to be taken if a benchmark materially changes or ceases to exist. In response to this, ISDA published the ISDA Benchmark Supplement[11] in September 2018, giving firms the ability to improve the contractual robustness of derivatives that reference interest rate, foreign exchange, equity and commodities benchmarks. As of June 2019, 55 parties have adhered to the Benchmark Supplement; however, in-scope entities have not proactively reached out to their clients and counterparties to exchange the questionnaires that are required for the amendments to be effective.

For the IBOR transition specifically, industry associations have mobilized around IBOR fallback language reform, with ISDA leading efforts for derivatives and national working groups exploring similar enhancements for cash products (most prominently led by the ARRC).

Industry progress — fallback language for derivatives

Progress to date

In 2016, the FSB's Official Sector Steering Group requested that ISDA lead industry efforts to develop and implement robust fallbacks for IBOR-referencing derivative contracts.

ISDA's enhanced fallback language will be an amendment to the 2006 ISDA Definitions and will apply to new IBOR trades once implemented.[12] ISDA will also publish a protocol that will allow market participants to opt in to the amended fallback language for legacy contracts.

In July 2018, ISDA conducted an initial fallback consultation for over-the-counter derivative contracts referencing select IBORs (British pound (GBP) LIBOR, Japanese yen (JPY) LIBOR, Euroyen LIBOR, Euroyen Tokyo Interbank Offered Rate (TIBOR) and Bank Bill Swap Rate (BBSW)). In December 2018, ISDA published a summary of the results of that initial consultation, which indicated that participants favored the following adjustments:

Fallback component	Adjustment
Benchmark rate adjustment (to account for difference between term IBORs and overnight ARRs)	Daily compounded ARR observed over the IBOR tenor period (in arrears) taking into account daily interest rate movements during the relevant period
Benchmark spread adjustment (to account for the bank credit premium, which is not inherent in ARRs)	Historical mean/median approach, based on the mean or median spot spread between the IBOR and ARR over a 5- or 10-year historical look-back period going into effect after a one-year transitional period after the fallback rate takes effect

In May 2019, ISDA launched two further consultations on benchmark fallbacks.[13] The first expands the scope of the July 2018 consultation to other reference rates, including USD LIBOR, Canadian Dollar Offered Rate (CDOR) and Hong Kong Interbank Offered Rate (HIBOR). It also proposes a benchmark replacement rate for the Singapore Dollar Swap Offered Rate (SOR), as USD LIBOR is currently used as an input into Singapore's rate.[14]

The second consultation addresses the concept of pre-cessation triggers. Pre-cessation triggers refer to events that may occur in advance of a true benchmark discontinuance (e.g., a regulatory announcement that LIBOR is no longer representative of its underlying market). Pre-cessation triggers were not included in ISDA's initial July 2018 consultation, but have been proposed by the ARRC in language for cash products. ISDA has published this follow-on consultation to determine whether pre-cessation triggers should be included, which would better align language across products.

For cleared derivatives, CME Group has announced that it intends to update its rulebook to align with ISDA to include revised fallback language, reserving the right to make any necessary adjustments based on consultations with its clients.[15] LCH has also announced its intentions to align with ISDA's amended definitions for new transactions entered on or after the date of publication. LCH also specified that outstanding legacy transactions will be amended to incorporate the corresponding revised definition.[16]

Expected timeline and outlook

ISDA aims to publish the finalized amendments to the 2006 ISDA Definitions for key IBORs by year-end 2019. Once finalized, the new language will supersede all ISDA Definitions and will apply to new transactions by default. ISDA also plans to publish the protocol to amend legacy transactions by year-end, with an expected effective date of March 2020.

ISDA will launch a separate consultation for Euro Interbank Offered Rate (EURIBOR) and Euro LIBOR (EUR LIBOR) after the Euro short-term rate (€STR) is published and traded, beginning on 2 October 2019.[17]

Industry progress – fallback language for cash products

Progress to date

In July 2018, the ARRC published a set of guiding principles for the development of IBOR fallback language for cash products:

Figure 4: ARRC guiding principles for fallback language

Principle 1: Contract Language Evolution and Moving from Discretion to Specificity	Principle 3: Feasibility and Fairness of Implementation
Market participants cannot wait for the industry to identify the "absolutely most robust [fallback] language possible." To minimize risks, firms should look to incorporate more robust language as soon as possible, understanding the language may need to change over time as industry standards evolve. If flexibility or discretion are incorporated, this should be done in the most limited manner to minimize disputes.	Fallback mechanics should be operationally feasible (i.e., spread adjustments and term structures must be able to be implemented practically in systems). Proposed language should incorporate feedback from a range of market participants to ensure it is "feasible and fair" and does not advantage any participant to the disadvantage of another. Fallback language should also seek to minimize value transfer and litigation, judicial and regulatory risks.
Principle 2: Consistency between Asset Classes as Appropriate	**Principle 4: Rate, Spread and Term Structure Adoption**
Fallback language "should bear resemblance to contract language in other asset classes and liabilities" as feasible and appropriate. Driving consistency of language will help align outcomes and minimize basis risk between related products (e.g., between a loan and its derivative hedge). Alignment across jurisdictions would similarly minimize value transfer in multicurrency facilities.	Fallback language should "explicitly allow for a spread adjustment to minimize valuation changes" and provide adequate protections to any party responsible for making spread adjustment determinations (e.g., administrative agent). Language should include clearly defined fallback triggers and effectively communicate the fallback rate and mechanics (e.g., spread, timing).

To assess fallback language for contracts referencing USD LIBOR, the ARRC has segmented IBOR-impacted products into business loans, floating rate notes, securitizations and consumer products.

In April 2019, the ARRC endorsed language for floating rate notes and syndicated loans. In May, the working group published language for bilateral business loans and securitizations. The ARRC also released a set of specific guiding principles for consumer loan products in July 2019, as well as an initial consultation on fallback language for adjustable rate mortgage (ARM) loans.[18]

The tables that follow provide a high-level overview of the ARRC's proposed language by product:

Figure 5.1: Comparison of ARRC fallback triggers

Trigger description		FRNs	Bilateral business loans	Syndicated loans	Securitizations	ARMs (proposed)
Permanent cessation	Benchmark administrator issues public statement that it has or will cease to publish the benchmark.	Yes	Yes	Yes	Yes	Yes
	Regulatory supervisor for the administrator or relevant authority issues public statement announcing the administrator has or will cease to publish the benchmark.	Yes	Yes	Yes	Yes	Yes
Pre-cessation	Regulatory supervisor for the administrator announces the rate is no longer representative.	Yes	Yes	Yes	Yes	Yes
	Percentage of underlying assets have been converted to the replacement benchmark or replaced by assets based on the replacement benchmark.				Yes	
	Federal or state laws or regulations prohibit the use of the rate.					Yes
Early opt-in	Hardwired: Borrower, agent or lender determines term SOFR is being used in (five) USD-denominated credit facilities.		Yes	Yes		
	Amendment: Lender declares an early opt-in election has occurred and provides notice to borrower.		Yes			
	Amendment: Administrative agent or required lenders determine USD syndicated credit facilities have adopted a benchmark replacement.			Yes		

Figure 5.2: Comparison of ARRC benchmark replacement waterfalls

Benchmark replacement waterfall		FRNs	Bilateral business loans	Syndicated loans	Securitizations	ARMs (proposed)
1	Forward-looking term SOFR + adjustment	Yes	Yes	Yes	Yes	
	Next available term SOFR + adjustment (longest tenor as can be determined that is shorter than the original benchmark)		Yes	Yes		
2	Compounded SOFR + adjustment (compounded average of daily SOFR over the relevant tenor) or simple average SOFR + adjustment	Yes	Yes	Yes	Yes	
3	Relevant selected rate + adjustment (rate selected by the relevant governmental body, lender, borrower/administrative. agent)	Yes	Yes	Yes	Yes	Yes
4	Relevant ISDA fallback rate + adjustment	Yes			Yes	
5	Issuer or designee selected rate + adjustment (given due consideration to industry-accepted rate for FRNs)	Yes				
	Note holder selected rate + adjustment					Yes
	Transaction specific rate + adjustment				Yes	

Figure 5.3: Comparison of ARRC benchmark replacement adjustments

Benchmark replacement adjustment		FRNs	Bilateral business loans	Syndicated loans	Securitizations	ARMs (proposed)
Hardwired	ARRC selected adjustment	Yes	Yes	Yes	Yes	Yes
	ISDA selected adjustment	Yes	Yes	Yes	Yes	
	Other selected adjustment	Issuer/ designee	Lender	Borrower/ administrative agent	Designated transaction representative	Note holder
Amendment	Following trigger event, agreement may be amended to a successor rate + adjustment		Yes	Yes		
	Subject to negative consent rights of required lenders (affirmative consent rights for early opt-in triggers)			Yes		
	May be subject to negative consent rights of the borrower		Yes			

Outside of the US, in January 2019, the ECB published its own set of fallback language principles for euro-denominated cash products. These principles generally align with the ARRCs, specifically covering (1) need for a permanent fallback trigger, (2) preference for the use of the ARR, (3) consideration of a spread adjustment, (4) introducing flexibility to facilitate future amendments and (5) consistency between products.[19]

The National Working Group on Swiss Franc Reference Rates indicated in February 2019 that it is working toward proposed fallback language for Swiss Average Rate Overnight (SARON) floating rate notes.

Expected timeline and outlook

The ARRC will assess benchmark replacement spread adjustment methodologies for use in cash products throughout the second half of 2019. The ARRC has also launched a working group to assess the use of SOFR for consumer products, as well as to consult on proposed fallback language.

Key considerations for proposed fallback language

1. Derivative and cash product fallback language misalignment

Proposed language for cash products includes "pre-cessation triggers" whereas ISDA's initial consultation did not. Note that in response to this issue, ISDA has launched a consultation regarding pre-cessation triggers.

Benchmark replacements also differ in current proposed language, with cash products first falling back to a term ARR and derivatives to a compounded overnight ARR.

Misalignment in the timing of transition and in benchmark replacement rates themselves could result in hedge ineffectiveness and basis risk, and may require clients to rebook hedges.

2. ISDA protocol adherence

ISDA's amendments will only apply to legacy transactions where participants have adhered to the protocol. Historically, protocol adherence has proven difficult to achieve — in particular, from noninstitutional clients and for the Asia-Pacific region.

Firms may need to be prepared to encourage protocol adherence or enter bilateral negotiations if adherence is not feasible. Firms should assess their current counterparties, product types and associated net exposure to prioritize outreach.

3. Legacy cash product amendment

Certain cash products will be very difficult, and often impossible, to amend. In particular, floating rate notes and securitizations may be difficult to modify given consent rights of impacted parties (e.g., requiring 100% note holder consent for amendments).

Where amendment is not feasible, contracts may be forced to rely on existing fallback language — in many cases, rendering the contract to a fixed rate.

The ARRC has sought to address this challenge in its proposed fallback language for floating rate notes and securitizations with the inclusion of several additional levels of the benchmark replacement waterfall to "ensure that a rate can be determined under any contingency."[20]

4. New ARR transactions

Current industry-proposed fallback language is written to address an IBOR cessation event, triggering a fallback to ARRs. In other words, the language is not a one-size-fits-all solution for contracts referencing other benchmark rates (e.g., new transactions referencing ARRs). Firms will need to develop or modify fallback language for use in new ARR-referencing contracts.

What does fallback language reform mean for firms?

Assessing the back book of IBOR contracts

In the Executive summary section of this paper, we cited that approximately $400 trillion worth of financial contracts reference LIBOR in one of the major currencies. To facilitate a smooth and timely transition away from IBORs by 2022, firms will need to understand their population of impacted contracts and determine appropriate remediation actions.

Understanding financial exposure

A typical global bank may have more than 250,000 contracts with references to IBORs that are likely to mature post-2021, in addition to several thousand other contracts with indirect IBOR exposure.

Firms must consider both on- and off-balance sheet exposures to localize IBOR impacts. While IBOR-referencing transactions may be identified via systems of record, this data may not be sufficient to cover all legal exposures.

For example, undrawn commitments or contracts with rate optionality will often not be picked up or flagged by systems of record as IBOR impacted. A detailed review of the contracts themselves may be required to truly scope impacted positions.

Understanding nonfinancial exposure

Beyond direct IBOR product exposure, firms should also consider impacts to their suite of service offerings. Namely, any servicing, administrative or trustee activity may convey IBOR transition risks and exposures.

The servicer, administrator or trustee of a given portfolio is often identified in contractual fallback language as the party responsible for determining replacement rates. Although the firm itself may hold only an administrative role in the contract (i.e., does not hold a stake in the given benchmark rate), it may find itself responsible for determining replacement rates and notifying impacted parties.

As such, for each IBOR-impacted contract, firms must assess the role (or roles) played as a party to the contract and understand those implications.

Inventorying impacted contracts and assessing fallback language

Firms must understand current fallback language for impacted contracts to assess appropriate remediation strategies. For example, understanding whether a given contract may be remediated via ISDA protocol adherence vs. bilateral negotiation will directly impact client outreach and prioritization.

It is important to note that for most firms, there is no systematic way to identify IBOR-impacted contracts and assess fallback language.

Historically, transactions in systems of record have not been linked directly to their associated legal contracts. Document repositories housing electronic copies of contracts have limited search functionality. Further, impacted contracts may be housed on local drives or via physical copies in secure locations.

Contractual language itself is typically variable and unstructured and therefore difficult to translate into a structured data set that can be analyzed efficiently.

Developing robust fallback language

Firms must assess industry-endorsed fallback language for inclusion in IBOR-referencing contracts, including new IBOR originations, and determine any modifications that are appropriate for the given product or client segment.

Firms must also develop robust fallback language for new ARR-referencing contracts, which may leverage industry-endorsed IBOR fallback language as a guidepost.

Leveraging document intelligence capabilities

Firms have a sizable body of legal work ahead of 2022 – first, to identify and assess impacted contracts, and second, to set a strategy for repapering and renegotiation where needed. This lengthy and resource-consuming process is often done manually by expensive, skilled lawyers or paralegals.

Firms can significantly accelerate IBOR contract review and remediation using a range of document intelligence technologies, which allow for the automated ingestion and digitization of large volumes of contracts, extraction of key structured and unstructured data, and partial or complete automation of contract repapering.

How does document intelligence work?

Document intelligence solutions are built on a set of advanced core technologies, including natural language processing (NLP), natural language generation (NLG), ML, OCR, process automation and data visualization.

These solutions allow for the ingestion and digitization of documents and extraction of structured and unstructured data. Extracted data (e.g., agreement name, document type, IBOR benchmark rate and fallback language) can then be normalized through business rules and structured into a data set that can be consumed by downstream systems and users.

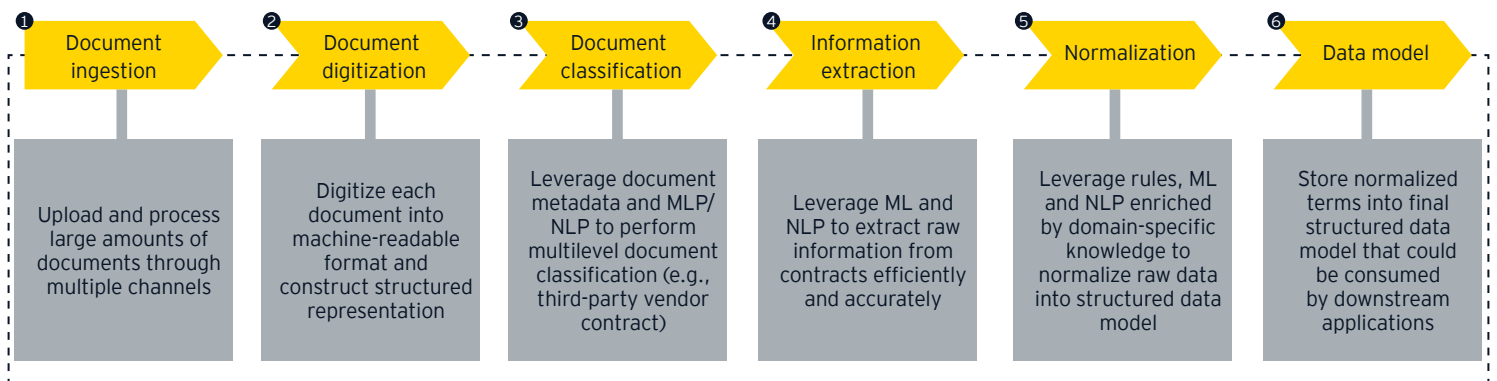The document intelligence process encompasses six core steps:

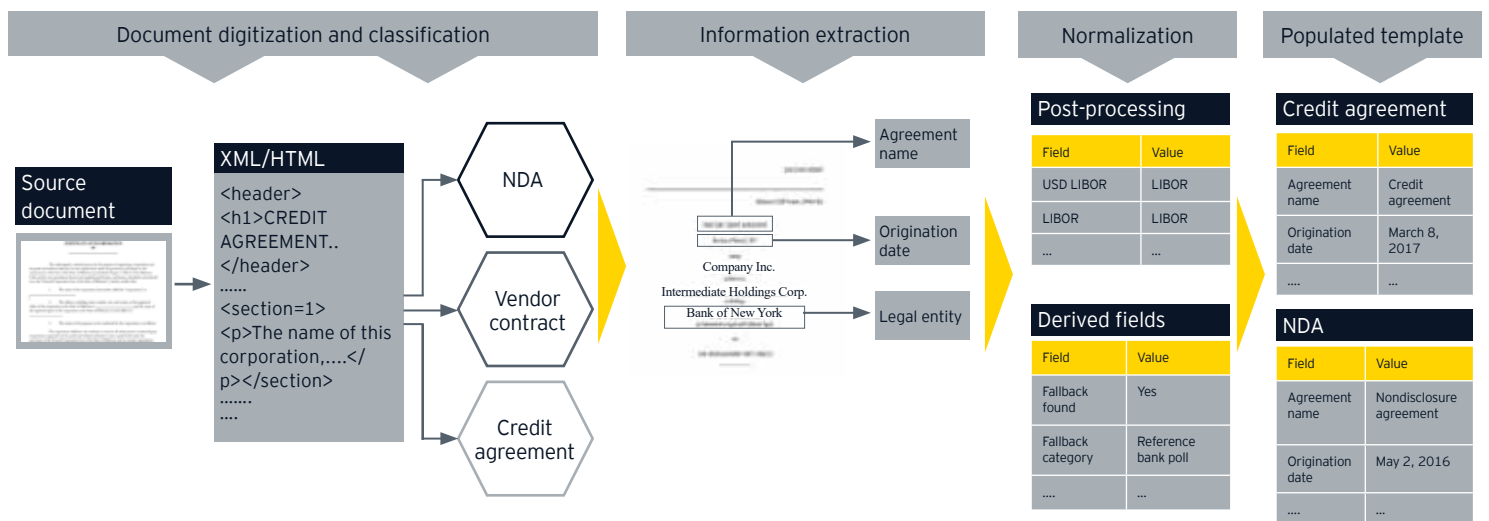| Step	Explanation
1. Document ingestion	Unstructured text (e.g., contracts, emails), structured data (e.g., forms, tables) and spreadsheets are sourced from multiple channels and processed into the tool.
2. Document digitization	Non-searchable files (e.g., PDFs, JPEGs) undergo preprocessing and OCR to become searchable/machine readable. Files are converted into a standardized representation with text and positional/layout features to construct a structural representation of the document for analysis.
3. Document classification	Documents are classified or tagged using a combination of metadata and machine learning/NLP. For example, to classify a document as a "Credit Agreement," text recognition models may be trained to search for the text "Credit Agreement."
4. Information extraction	Raw data is extracted from documents using ML and NLP modeling.
5. Normalization	Extracted raw data is normalized into the structured data model based on business logic. For example, "British (Bankers' Association (BBA)) LIBOR" and "LIBOR" may be normalized into "IBOR."
6. Data model	Normalized data is mapped into the final structured data model. For example, "Credit Agreement" is extracted into the "Agreement Name" field, whereas " '1-year LIBOR' means the rate …" would be extracted into the "Reference Rate Definition" field.

To demonstrate these steps visually, below is an illustrative example of the document intelligence process:

Figure 6: Document intelligence process flow

❶ Document ingestion	❷ Document digitization	❸ Document classification	❹ Information extraction	❺ Normalization	❻ Data model
Upload and process large amounts of documents through multiple channels	Digitize each document into machine-readable format and construct structured representation	Leverage document metadata and MLP/NLP to perform multilevel document classification (e.g., third-party vendor contract)	Leverage ML and NLP to extract raw information from contracts efficiently and accurately	Leverage rules, ML and NLP enriched by domain-specific knowledge to normalize raw data into structured data model	Store normalized terms into final structured data model that could be consumed by downstream applications

Illustrative example

Document digitization and classification

Source document

XML/HTML
```
<header>
<h1>CREDIT
AGREEMENT..
</header>
......
<section=1>
<p>The name of this
corporation,....</
p></section>
.......
....
```

NDA / Vendor contract / Credit agreement

Information extraction

Agreement name / Origination date / Legal entity

Company Inc.
Intermediate Holdings Corp.
Bank of New York

Normalization

Post-processing

Credit agreement

Field	Value
USD LIBOR	LIBOR
LIBOR	LIBOR
...	...

Derived fields

Field	Value
Fallback found	Yes
Fallback category	Reference bank poll
....	...

Populated template

Credit agreement

Field	Value
Agreement name	Credit agreement
Origination date	March 8, 2017
....	...

NDA

Field	Value
Agreement name	Nondisclosure agreement
Origination date	May 2, 2016
....	...

Document intelligence solutions can also be paired with workflow and contract repapering tools to further automate the remediation process.

How document intelligence solutions can facilitate the IBOR transition

Document intelligence solutions provide businesses with the capability to process and react to a wide range of documents more quickly, consistently, accurately and cost effectively, enabling skilled legal resources to focus on the highest value activities.

For the IBOR transition, firms can leverage document intelligence solutions to:

‣ Digitize large volumes of contracts and transform unstructured legal text into a structured data model for interpretation without direct manual review of each document

‣ Systematically assess and categorize current fallback language based on language strength and risk attributes, which will accelerate review of impacts and remediation strategies, reducing time and effort required from legal teams

‣ Automate components of the contact repapering process, including generating proposed amendment clauses based on contract language and facilitating workflow between documentation/operations, legal teams and impacted clients

Leveraging document intelligence solutions has the potential to significantly reduce document review and processing time, resulting in cost savings for firms.

Summary

The inability to address contractual challenges may result in adverse consequences for financial market participants, including financial, legal, conduct and reputation risk. Firms should take action now to assess their exposure and determine a legal remediation strategy with consideration of client outreach and communication approach, operational readiness and product transition strategies.

Authors: John Boyle, Janina Polo, Kerry O'Brien

Contact: John Boyle, john.boyle1@ey.com
Janina Polo, janina.polo@ey.com

Footnotes

[1] LIBOR, administered by ICE Benchmark Administration, is published daily for five major currencies (USD, GBP, EUR, JPY and CHF) across seven tenor buckets (35 unique rates for each currency and tenor pair) based on submissions by no more than 16 panel banks. Similar to LIBOR, IBORs are published for a number of other currencies — for example, Hong Kong Interbank Offered Rate (HIBOR) is the benchmark interest rate for Hong Kong dollars and administered by the Treasury Markets Association (TMA).

[2] Andreas Schrimpf, Vladyslav Sushko, "Beyond LIBOR: a primer on the new reference rates," BIS Quarterly Review, March 2019.

[3] The FCA announced that it would not compel panel banks to submit LIBOR quotations after 2021. As LIBOR is not guaranteed beyond this date, firms will need to review and potentially remediate any contracts associated with IBOR-referencing transactions that mature post-2021.

[4] Number of contracts referencing LIBOR that are likely to be impacted is significantly higher for firms with significant exposure to LIBOR in consumer and commercial lending, corporate trust and asset servicing activities. In addition, in some instances firms cannot identify which contracts have references to LIBOR without assessing the entirety of their contract population; this is primarily a result of unclear metadata associated with each contract.

[5] List of contract features is not comprehensive and will vary by product and contract type.

[6] Examples of regional master agreements include the German Master Agreement for Financial Derivatives Transactions (DRV), Swiss Master Agreement and Federation Bancaire Francais (FBF) Master Agreement. These master agreements are executed between counterparties to govern derivative transactions within the relevant jurisdiction, similar to an ISDA Master Agreement.

[7] Interbank Offered Rate (IBOR) Fallbacks for 2006 ISDA Definitions: Supplemental Consultation on Spread and Term Adjustments for Fallbacks in Derivatives Referencing USD LIBOR, CDOR and HIBOR and Certain Aspects of Fallbacks for Derivatives Referencing SOR, International Swaps and Derivatives Association, Inc., May 16, 2019.

[8] LCH Limited Procedures Section 2C SwapClear Clearing Service, LCH Limited, September 2018.

[9] "What's Next for LIBOR and Eurodollar Futures?," www.CMEgroup.com, https://www.cmegroup.com/education/articles-and-reports/whats-next-for-libor-eurodollar-futures.html, accessed July 8, 2019.

[10] Principle 13 of the IOSCO Principles calls for administrators to have clear policies and procedures to address benchmark cessation, and that these bodies should encourage users to implement fallback provisions.

[11] "ISDA 2018 Benchmarks Supplement Protocol: Adhering Parties," www.isda.org, https://www.isda.org/protocol/isda-2018-benchmarks-supplement-protocol/adhering-parties, accessed July 1, 2019.

[12] Amendment to the 2006 ISDA Definitions will also apply to all previous definitional booklets (e.g., 2000 ISDA Definitions).

[13] "ISDA Publishes Two Consultations on Benchmark Fallbacks," www.isda.org, https://www.isda.org/2019/05/16/isda-publishes-two-consultations-on-benchmark-fallbacks/, accessed July 1, 2019.

[14] The consultation proposes the use of an "adjusted SOR," which would be calculated using the USD LIBOR benchmark replacement (i.e., adjusted SOFR plus a spread) if USD LIBOR ceases.

[15] "CME Group Supports ISDA's LIBOR Fallback Provisions," www.CMEgroup.com, https://www.cmegroup.com/education/articles-and-reports/cme-group-supports-isda-s-libor-fallback-provisions.html, accessed July 8, 2019.

[16] "LCH's position in respect of ISDA's recommended Benchmark Fallback Approaches," www.lch.com, https://www.lch.com/membership/ltd-membership/ltd-member-updates/lchs-position-respect-isdas-recommended-benchmark, accessed July 8, 2019.

[17] The European Money Markets Institute (EMMI) has been working to enhance EURIBOR in the hopes that the revised "hybrid" methodology will meet EU BMR standards. If the methodology is approved, EURIBOR may continue post-2021.

[18] Responses to the July 12, 2019, consultation on fallback language for ARM loans are due by September 10, 2019. ARRC Consultation Regarding More Robust LIBOR Fallback Contract Language for New Closed-End, Residential Adjustable Rate Mortgages, The Alternative Reference Rates Committee, July 12, 2019.

[19] Guiding principles for fallback provisions in new contracts for euro-denominated cash products, Working Group on Euro Risk Free Rates, January 2019.

[20] ARRC Recommendations Regarding More Robust Fallback Language for New Issuance of LIBOR Floating Rate Notes, The Alternative Reference Rates Committee, April 25, 2019.

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