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LIBOR Might Cease in 2021, are Insurers Ready?

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The London Interbank Offered Rate (LIBOR) will possibly cease to exist at the end of 2021, as regulators will no longer compel banks to provide quotes. This will create the largest challenge in the financial markets today. LIBOR is embedded in \$350 trillion of contracts, including OTC and exchange-traded derivatives, structured products, floating rate notes, syndicated and business loans, mortgages and other instruments.

Globally, the Financial Stability Board noticed the decline of liquidity on the interbank short-term funding and the structural risk of relying on a benchmark based on limited transactions. That led to the creation of a working group in each jurisdiction composed of regulators and market participants. Each jurisdiction identified alternative reference rates (ARRs) that are compliant with the International Organization of Securities Commission's (IOSCO's) standards for each currency.

In the U.S., the secured overnight financing rate (SOFR) was identified as the replacement of USD LIBOR and was launched in April 2018; the volume has been increasing since its launch. As of April month-end, there were 130+ participants in the futures market, with a total outstanding open interest of \$431 billion, more than \$64 billion in outstanding notional in cleared swaps and more than \$86 billion in outstanding cash issuances. (See Table 1)

Table 1
Overview of Replacement Rates in UK, US, Eurozone: Replacement in the US Market Is SOFR

Working groups in each jurisdiction have recommended robust, alternative ARR to transition away from existing IBORs. The RFR benchmarks are overnight whereas current use of IBORs is largely in term rates.					
Jurisdiction					
IBORs	GBP LIBOR	USD LIBOR	EURIBOR, Euro LIBOR	CHF LIBOR	JPY LIBOR, JPY TIBOR, EUROYENTIBOR
Working Group	Working Group on Sterling Risk-Free Reference Rates	Alternative Reference Rates Committee	Working Group on Euro Risk-Free Rates	The National Working Group on Swiss Franc Reference Rate	Study Group on Risk-Free Reference Rates
Alternative RFR	Reformed Sterling overnight index average (SONIA)	Secured overnight financing rate (SOFR)	Euro short-term rate (ESTER)	Swiss average rate overnight (SARON)	Tokyo overnight average rate (TONA)
Description	<ul style="list-style-type: none"> Unsecured Fully transaction-based Encompasses a robust underlying market Overnight, nearly risk-free reference rate Includes a volume-weighted trimmed mean Sub-groups on term rates, SONIA futures, pension funds 	<ul style="list-style-type: none"> Secured Fully transaction-based Robust underlying market Overnight, nearly risk-free reference rate that correlates closely with other money market rates Sub-groups on cash products (loans, CLOs, FRNs, mtgs, other) and outreach 	<ul style="list-style-type: none"> Unsecured Fully-transaction based Based on daily money market rates from 52 largest euro area banks Will start publishing by October 2019 Sub-groups on term rates, contract robustness, cash and derivatives products, risk management and communications 	<ul style="list-style-type: none"> Secured Became the reference interbank overnight repo on Aug. 25, 2009 Secured rate that reflects interest paid on interbank overnight repo Sub-groups on loan and deposit markets and capital markets and derivatives 	<ul style="list-style-type: none"> Unsecured, transaction-based benchmark for the robust uncollateralized overnight call rate market The Bank of Japan calculates and publishes the rate on a daily basis using information provided by money market brokers known as Tanshi As an average, weighted by the volume of transactions corresponding to the rate
Rate administrator	Bank of England	Federal Reserve Bank of New York	European Central Bank	SIX Swiss Exchange	Bank of Japan
Transition plan published	No ¹	Yes	No	No	No

¹ The Working Group's preference for a potential plan has been indicated, but a plan has not been published (Source: Bank of England Official Website).

SELECTED ACRONYMS

ARRC—Alternative Reference Rates Committee. U.S. national working committee.

ARR—Alternative reference rate. Rate that has been proposed by the ARRC to substitute for LIBOR.

LIBOR—London Interbank Offered Rate.

SOFR—Secured overnight financing rate. The ARR proposed by the ARRC.

IOSCO—International Organization of Securities Commission. The IOSCO set up the standards for acceptable financial markets benchmarks. New ARR must meet those standards. (<https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>).

SOFR is a secured overnight rate. As an overnight rate, when compared with term rates like LIBOR three months, it has a higher volatility. (See Figure 1.) SOFR is correlated to Treasury issuance and money market flows (month/quarter/year-end activity). However, the SOFR three-month term rate would be considerably less volatile than the overnight rate.

Term Rates

The ARRs are overnight rates and do not have term rates like LIBOR has. Some market participants, especially in the cash market, would prefer that term rates exist to facilitate a transition for cash products. There are several approaches on how to calculate terms rates, and it is possible that term rates might differ from cash instruments and derivatives, giving rise to some basis risk between the cash and derivatives term rates.

The preliminary results of the International Swaps and Derivatives Association’s (ISDA’s) consultation on Fallbacks for Derivatives Contracts indicate “compounded setting in arrears rate” to be the preferred choice of calculating term reference rates using historical ARR data.

However, the benchmark administrator, an affiliate of Intercontinental Exchange (ICE) has launched the ICE term risk-free rates portal that provides forward-looking term rates based on the futures and swaps markets. Forward-looking term rates appear to be the preference for cash products. (See Table 2, pg 16)

DIFFERENCES BETWEEN USD LIBOR AND SOFR

The ARRs do not contain the same credit premium as LIBOR, which had embedded the credit spread of banks in unsecured lending. It is a primary focus of the industry groups to drive consensus on the credit spread for each ARR and how it should be calculated.

Figure 1
Historical Data of Overnight SOFR Versus Three-Month LIBOR

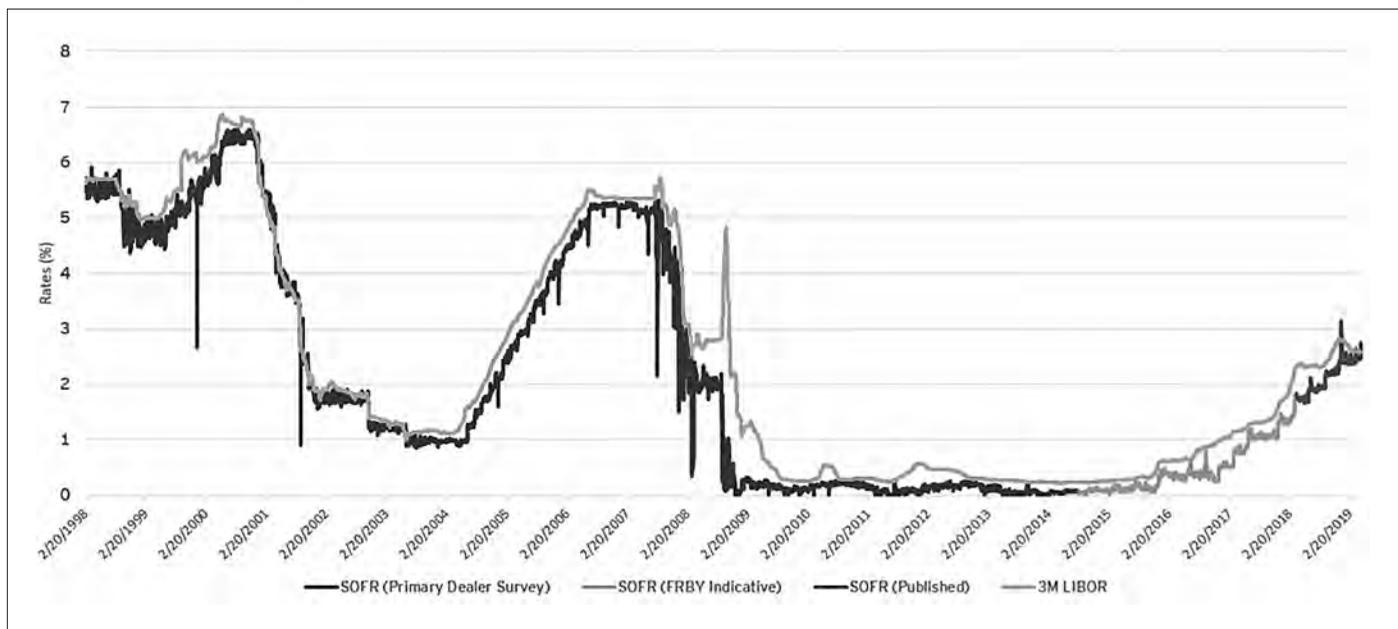


Table 2
Overview of Potential Term Rate Calculations for ARRs

Term Reference Rate Calculation Method	Backward Looking	Forward Looking
ISDA—Compounded setting in arrears rate	✓	
IBA—Simple Average	✓	
IBA—Compounded in Arrears	✓	
IBA—Futures Method		✓
IBA—Swaps Method		✓

LIBOR TRANSITION SCENARIOS AND TIMELINES

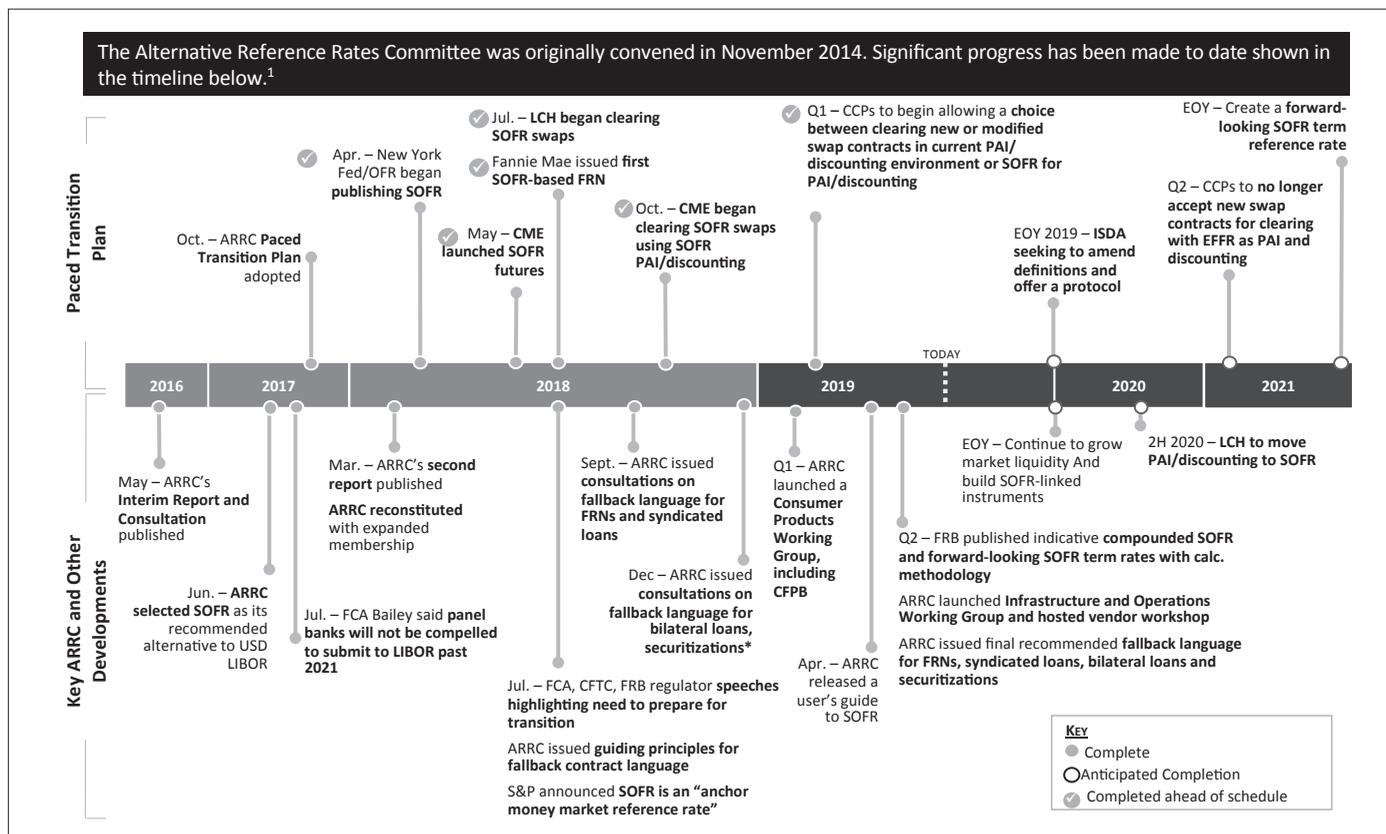
The Alternative Reference Rates Committee (ARRC) has worked on developing a transition timeline from USD LIBOR to SOFR. Figure 2 shows the major transition milestones.

However, we have observed several institutions considering different scenarios of how transition might occur to develop appropriate plans. Following are three potential scenarios we

have developed and used to understand the potential LIBOR transition implications.

1. Smooth and timely transition. The majority of legacy contracts maturing post-2021 have been transitioned to ARRs; all new transactions are based on ARRs. Liquidity has migrated from LIBOR to ARR for all products. A full suite of derivatives instruments are available across the entire term structure to hedge.
2. Partial transition. Some legacy contracts have been transitioned to ARRs. All new transactions are based on ARRs. LIBORs continue to be published and are pretimed for use with legacy transactions. Liquidity is bifurcated across LIBOR and ARR products; liquid basis markets are available to hedge LIBOR-ARR basis risk.
3. Disruptive transition. A significant volume of legacy transactions with weak fallback language remain at the point of discontinuation. A permanent cessation of LIBOR occurs post-2021. Market liquidity and adoption of ARRs is weak; term rates are not available for all ARRs. There is significant disruption and litigation risk in financial markets.

Figure 2
Timeline of US Transition From LIBOR to SOFR



¹ As published by the ARRC on Jan. 31, 2019: <https://www.newyorkfed.org/arrc/sofr-transition#pacedtransition>.

IMPLICATIONS FOR INSURERS

Insurers have the most exposure on their investments portfolio. Based on our experience, more than 95 percent of the exposure on insurers is in the investment portfolio and hedging program. A large part of the hedging is associated with the hedging of variable annuities and fixed index annuities, but other financial products with intensive hedging activity include guaranteed investment certificates (GICs) and medium-term notes.

However, the insurance products could experience a secondary impact. While the volume of insurance liabilities indexed to LIBOR is limited, the main impact could be on its fair value due to changes in the discount curve. This might not materialize in the short term but might have an impact when ARR, including SOFR, become the market-preferred rate. A new discount curve build using ARR data points could be lower than a LIBOR-based curve and result in an increase of the liabilities value. An increase in the value of the liabilities could impact insurers' capital and reserves. This is a mainly an issue for insurers based or operating in Europe that follow Solvency II, where the discount curve is a function of LIBOR provided by the European Insurance and Occupational Pensions Authority.

In the United States, where some insurers use economic capital measures, the value of certain liabilities may be assessed through replicating portfolios. For many of these economic frameworks, LIBOR may be an input. The use of LIBOR could result in a valuation impact during transition as well as potential changes in sensitivities to interest rate movements.

Liquidity in Long-Dated Financial Products

Development of liquidity for long-dated ARR-linked products in both the cash and derivatives is critical for insurers. Insurers tend to invest in long-dated instruments—like, for example, liability-driven investing—where pension funds hold long-dated swaps, many of which are based on LIBOR, to hedge long-dated interest rate risk. So far, the SOFR-linked products are occurring on the short end of the curve, with cash instruments going out up to 24 months. This liquidity will take time, but participation of insurers in the market will be essential to the development of long-dated products.

Value Transfer

There is a risk of an adverse profit and loss impact due to lack of explicit bank credit premium in ARRs. The spread and behavior differences between LIBOR and SOFR can result in value transfer during transition and, in turn, impact value of investments, funds net asset value and performance fees. The potential value transfer is contingent on the transition scenarios discussed in the previous section; one of the primary objectives of the fallback consultations is to develop a consensus among

market participants on how to calculate an appropriate spread that reduces value transfer.

Fiduciary Duties

Fiduciary risk is a top priority for money managers; transition poses a high potential for reputational and litigation risk if the transition negatively impacts clients. Organizations should make sure they have necessary representation from legal as part of their LIBOR transition program to manage the risk.

Hedging

The differences in the behavior between LIBOR and SOFR and potential differences in term rate calculations between cash and derivatives can cause some basis between the hedges and the instruments hedge. That basis might have an economic impact.

From a hedge accounting perspective, the FASB is considering providing relief for hedge accounting. Key potential impacts include:

1. The modification of a derivative to include an ARR may be considered a change in critical terms requiring de-designation.
2. The modification of a hedged cash product to include an ARR may be deemed an extinguishment from an accounting perspective requiring de-designation.
3. Difficulty in asserting that forecast cash flows are still probable when LIBOR may not exist post-2021.
4. Limited availability of historical data for ARRs, including discount curves, when assessing hedge effectiveness.
5. The need to update the modeling of hedged items given the change in hedged risk and associated impacts to hedge effectiveness.
6. Mismatches in timing of the hedging instrument and hedged item's transition to an ARR.
7. The ability to continue to assert hedge effectiveness qualitatively when either the hedging instrument or hedged item transitions.

Inconsistent Fallback Terms for Contracts Tied to LIBOR

Currently the fallback language across asset classes or even within the same asset class is varied. Generally, the most important terms are related to triggers that would require the move to another benchmark, replacement benchmarks and the spread that would have to be added. New fallbacks proposed by the ARRC and industry associations like ISDA try to bring consistency of fallback for contracts moving forward. (See Table 3, pg 18)

Table 3
Fallback Language Consultation Summary

Consultations by industry working groups have outlined enhanced fallback provisions that address challenges related to triggers, successor rates and spread adjustments for new, and in some cases legacy, products which are summarized in this table.

Products	Triggers	Benchmark Replacement Waterfall	Benchmark Replacement Adjustment	Consultation Stage	Industry Working Group
OTC Derivatives ¹	• Benchmark discontinuance event	1. Compounded setting in arrears rate	• Historical mean/median approach	Finalized	ISDA
Floating Rate Notes	• Permanent cessation trigger • Pre-cessation trigger	1. Forward-looking term SOFR + adjustment 2. Compounded OR simple average SOFR + adjustment 3. Relevant governmental body (e.g., ARRC) selected rate + adjustment 4. ISDA fallback rate + adjustment 5. Issuer (or designee) selected rate + adjustment	• ARRC selected adjustment • ISDA fallback adjustment • Issuer (or designee) selected adjustment	Finalized	ARRC Floating Rate Notes Working Group
Syndicated Loans	Amendment Approach	• Permanent cessation trigger • Pre-cessation trigger • Early “opt-in” trigger	1. Agreed between borrower and administrative agent	Finalized	ARRC Business Loans & CLOs Working Group
	Hardwired Approach	• Permanent cessation trigger • Pre-cessation trigger • Early “opt-in” trigger	1. Forward-looking OR next available term SOFR + adjustment 2. Compounded OR simple average SOFR + adjustment 3. Borrower and administrative agent selected rate + adjustment		
Bilateral Loans	Amendment Approach	• Benchmark discontinuance event • Determination by agent or required lenders	1. Agreed between borrower and lender	Finalized	ARRC Business Loans Working Group
	Hardwired Approach	• Benchmark discontinuance event • At least two syndicated loans are priced over term SOFR plus benchmark spread	1. Forward-looking OR next available term SOFR + adjustment 2. Compounded OR Simple average SOFR + adjustment 3. Lender selected rate + adjustment		
Securitizations	• Benchmark discontinuance event • Pre-cessation trigger events	1. Forward-looking term SOFR + adjustment 2. Compounded or simple average SOFR + adjustment 3. Relevant governmental body (e.g., ARRC) selected rate + adjustment 4. ISDA fallback rate + adjustment 5. Transaction-specific fallback rate + adjustment	• ARRC selected adjustment • ISDA fallback adjustment • Designated transaction representative selected adjustment	Finalized	ARRC Securitizations Working Group

Considerations

- ISDA’s supplement of enhanced fallback provisions for OTC derivatives will be applicable to all new trades once issued.
- ARRC’s guiding principles indicate that it is completely voluntary for market participants to implement or adopt any suggested contract language.

¹ LCH will update rulebooks consistent with the updated ISDA definitions to mirror the triggers, waterfalls, and spread adjustments defined.

WHAT TO DO TO PREPARE FOR TRANSITION

Moving from LIBOR to the ARRs is a massive undertaking that requires coordination in both the market and each organization. Development of liquidity in the SOFR-linked products will be important, but there are many activities that insurers can undertake today.

Governance

The key to an effective transition will be a robust governance structure that oversees the design and implementation of LIBOR transition efforts. Governance should be under the auspices of the board and is typically led by Treasury, risk, markets/ investments or special projects groups. The objectives are:

- Establish a robust program governance to oversee the successful transition, including regular reporting to senior management.
- Allocate budget and confirm staffing needs to execute impact assessment and implementation.

- Implement a workstream structure, including reporting to monitor exposure to LIBOR throughout the transition period.

Conduct Impact Assessment

Exposure to LIBOR

Assess a product inventory of LIBOR-linked products based on exposure and maturity profile. Validate assessment with the core business lines.

Contracts

Determine the need for fallback language amendments, repapering and client outreach.

Models

Assess the volume of models that use LIBOR as an input and new models needed to price and risk SOFR-linked products. Assess both quantitative and qualitative impacts.

Technology

Perform a detailed assessment across the enterprise technology landscape. Assessment will be required across documents,

platforms, metadata, codes and data to determine in-house and third-party solutions impacted.

Based on the results of the assessment, insurers should develop an IBOR transition road map for the enterprise as well as product-specific transition plans. The road map will provide a strategic view of the key priorities and timing organized by product design and pricing, legal contracts, models, internal and external communications, technology and operations, risk and finance. We compel insurers to both complete an impact assessment and develop a road map as soon as possible to be ready for a LIBOR cessation.

In our experience, legal contracts, models and technology are the areas that require the most effort to implement. We would like to highlight some considerations contract management. The problem can be divided into two parts: new contracts underwritten using LIBOR and legacy contracts. For new contracts, the priority is to incorporate the enhanced fallback language early to avoid increasing LIBOR exposures that are ill equipped to transition away in an event of a LIBOR cessation. For legacy contracts, the first step is to identify those contracts with inadequate fallback terms. Then prepare to do a client or counterparty outreach to repaper contractual terms, including triggers, rate fallback and spreads. Contracts can be divided into:

- **Client contracts.** The investments team should prepare to engage with the client to initiate the repapering process.
- **Counterparty contracts.** Sell-side counterparties are more likely to start the outreach and repapering process.
- **Contracts with limited probability to successfully renegotiate terms.** There are contracts of certain asset classes that might not have adequate fallback terms and do not have a clear path to change the fallback terms. Changing terms would require certain approvals that are not practical. For example, some structured products might require majority bondholder approval (e.g., MBS, ABS) to change deal terms; obtaining bondholder approvals might not be feasible, as bondholders might be unknown and bondholder incentives might vary depending on what tranche the investor holds. For those contracts, organizations are making business decisions to handle those contracts.

In closing, we expect LIBOR transition to gain additional momentum in the coming months; probably when the ISDA releases its protocol for OTC derivatives later this year, it will



increase the level of attention paid by clients and the users of financial instruments.

Finally, we encourage the insurers to actively participate in public consultations, follow ARRC and trade association guidance and developments, and develop transition plans and allocate resources. ■



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