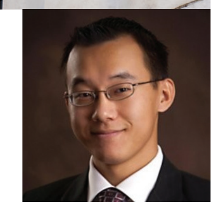

From LIBOR to SOFR: What Financial Institutions Need to Know

By Bob Wang
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Although LIBOR won't be completely phased out until the end of 2021, it's not too early for financial institutions to begin preparing for the change.

The United Kingdom's Financial Conduct Authority – the regulatory body that oversees the London Interbank Offered Rate (LIBOR) – announced plans several years ago to phase out its support of LIBOR, and U.S. financial regulatory bodies have been preparing for that change.

A committee of regulatory agencies and financial institutions in the U.S. known as the Alternative Reference Rates Committee (ARRC) selected the Secured Overnight Financing Rate (SOFR) as the alterative reference rate for U.S. dollar derivatives and other financial contracts instead of LIBOR. The committee is working to keep financial institutions informed so that they can make the necessary preparations for the change.

While most banks use a reference index for pricing, smaller community banks such as those that are members of the Federal Home Loan Bank (FHLB) System, typically use the prime rate, which generally moves in parallel with the federal funds rate set by the Federal Open Market Committee of the Federal Reserve.

Still, this change affects nearly everyone to some degree as LIBOR is an international index that has been used for decades by large global financial institutions for pricing short- and long-term loans. In addition, most of the interest-rate derivatives market is based on LIBOR, a $200 trillion market.

"Taking this away is a huge deal. You have to substitute it with another liquid index," said Bill Patterson, managing director at Commerce Street Capital, an investment banking firm that specializes in representing middle-market financial institutions.

"We've phased out of indexes before, and the world didn't stop, but not one that is tied to this many banks all around the world," Mr. Patterson said.

Because community and smaller regional financial institutions likely do not use LIBOR in transactions with their customers, the impact of the LIBOR phase-out may be muted for them, while larger financial institutions may be pricing transactions in LIBOR on a daily basis.

Even if a community bank ties all of its loans to the prime rate, the changeover will still affect them to some extent, Mr. Patterson said. There is an indirect impact because the balance sheets of Federal Home Loan Banks are tied to LIBOR. Member community financial institutions that borrow wholesale funds whether from FHLB Dallas or another source will be doing so in transactions that are typically indexed to LIBOR.

"Chances are most of their counterparties use LIBOR as an index, so it will apply to them indirectly," he said.

An institution's exposure to LIBOR is usually driven by its size and the complexity of its balance sheet, so there may be insignificant exposures for some financial institutions and larger exposures for others.

What to Do Now

It is a good idea for smaller financial institutions that do not use LIBOR for loans to their customers to conduct due diligence on their counterparties that use LIBOR in order to make sure that their counterparties are addressing the changeover properly, but these smaller institutions may not need to go through the step of forming a committee to prepare, said Mr. Patterson.

While access to funds from a Federal Home Loan Bank or the Federal Reserve should not be an issue with the changeover to SOFR, banks that rely significantly on wholesale funding will want to review their other wholesale funding sources, he said. This is something banks with a heavy reliance on wholesale funding should be doing already as part of sound financial business practices, Mr. Patterson added.

Larger banks, credit unions and insurance companies that index lending to LIBOR and have significant exposure to LIBOR should consider forming a committee to prepare for the transition.

Internally, financial institutions will want to have a good understanding of what the LIBOR phase-out will mean to their interest-rate risk position and will want to eventually simulate basis risk stress tests to determine if SOFR will behave differently than LIBOR. That type of testing will not occur, however, until banks see what the five-year SOFR looks like.

They will also need to figure out how to best communicate the move from LIBOR to SOFR to their customers. It will not be effective to inform customers of the change now, and then go quiet for two years before delivering revised loan documents for signature, according to Mr. Patterson. Some documents may already include a fallback mechanism for determining a replacement reference rate.

"This isn't just impacting interest-rate risk and liquidity risk, it's also impacting other sectors such as compliance risk and

ESTIMATED USD LIBOR MARKET FOOTPRINT BY ASSET CLASS[1]

Broad Category	Product Category	Volume (trillions of USD)	Share Maturing by end of 2021
Over-the-Counter Derivatives	Interest rate swaps	81	66%
	Forward rate agreements	34	100%
	Interest rate options	12	65%
	Cross currency swaps	18	88%
Exchange Traded Derivatives	Interest rate options	34	99%
	Interest rate futures	11	99%
Total Derivatives Exposure		190	
Bonds	Floating/Variable Rate Notes	1.8	84%
Securitizations	Mortgage-Backed Securities (include CMOs)	1	57%
	Collateralized loan obligations	0.4	26%
	Asset-backed securities	0.2	55%
	Collateralized debt obligations	0.2	48%
Business Loans[2]	Syndicated loans	1.5	83%
	Nonsyndicated business loans	0.8	86%
	Nonsyndicated CRE/Commercial mortgages	1.1	83%
Consumer Loans	Retail mortgages[3]	1.2	57%
	Other consumer loans	0.1	82%
Total USD LIBOR Exposure		199	82%

[1] Source: Federal Reserve staff calculations, BIS, Bloomberg, CME, OTCC, Federal Reserve Financial Accounts of the United States, G.19, Shared National Credit, V-14 data, and JPMorgan Chase. Data are gross national exposures as of year-end 2016. [2] The figures for syndicated and corporate business loans do not include undrawn lines. Nonsyndicated business loans exclude commercial real estate (CRE)/commercial mortgage loans. [3] Estimated maturities are based on historical prepayment rates.

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credit risk," Mr. Patterson said. "From a compliance perspective, you can't just run around changing loan documents and say 'here you go' to your customers."

Anything that will require a change in the loan document or an addendum to the loan agreement should be drafted by an attorney and reviewed by both credit and compliance departments, he says.

Numerous investment banks, accounting firms and others have started to publish primers on the LIBOR phase-out. Below are some tips to help financial institutions prepare:

1. **Depending on an entity's LIBOR exposure, consider creating a committee to oversee the transition.**
2. **Inventory existing LIBOR transactions.**
3. **Review existing contract provisions and amend language as necessary.**
4. **Develop language for new contracts to facilitate a smooth transition to SOFR.**
5. **Review potential implications in accounting, tax, compliance and other areas.**
6. **Develop a communication plan to inform affected parties about the changes and make sure communication is timely.**
7. **Stay informed in order to follow best practices for SOFR implementation.**

"They are still printing LIBOR financing every day," Mr. Patterson said. "There have been some SOFR bond issuances, but it is still pretty early in the process."

The FHLB System offered three SOFR-linked debt issuances in 2018. In December 2018, FHLB Dallas discontinued offering members new LIBOR-based floating-rate advances with maturities beyond December 31, 2021. During 2019, members will receive additional member communications and/or product enhancements related to the LIBOR-SOFR transition.

For more information, contact Member Solutions at 844.FHL.BANK.

A Brief History of ARRC and the Move to SOFR

1 Major reference rates, such as LIBOR, are widely used in the global financial system as benchmarks for a broad range of financial products and contracts.

2 In response to concerns regarding the reliability of LIBOR and alleged misconduct by financial institutions related to its use, the United Kingdom government recommended in 2012 that changes be made in the administration and oversight of LIBOR. The U.S. Financial Stability Oversight Council and Financial Stability Board in 2013 also pointed out issues with LIBOR and called for the development of alternative interest rate benchmarks.

3 In 2014, the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York convened the Alternative Reference Rates Committee (ARRC) to identify best practices for alternative reference rates and to create an implementation plan for an alternative reference rate. The Federal Home Loan Bank (FHLB) system, through FHLB New York, is a member of ARRC.

4 In 2016, ARRC identified the Secured Overnight Financing Rate (SOFR) as the rate that represents best practice for use in certain new U.S. dollar derivatives and other financial contracts.

5 ARRC was reconstituted in 2018 to help ensure the successful implementation of its "Paced Transition Plan" and to serve as a forum to coordinate and track planning across cash and derivatives products and market participants currently using U.S. dollar LIBOR.

6 ARRC will deliver recommendations for addressing risks in contract language, orderly transitions on a voluntary basis, and actions that would facilitate such transitions to SOFR as it deems appropriate.

7 LIBOR is expected to be phased out by the end of 2021.

Sources: ARRC, Mayer-Brown