The Transition from LIBOR to SOFR: What Members Need to Know

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Why do we need to transition from LIBOR?

- Total volume in unsecured term interbank funding transactions has fallen to roughly $500 million per day. These transactions make up the basis for LIBOR submissions, which are used to calculate the reference rate.

- Approximately $200 trillion of U.S. Dollar financial contracts are tied to LIBOR. This is roughly 10 times U.S. Nominal Gross Domestic Product. Most of these contracts (95%) are derivatives, but LIBOR is also referenced in business loans, floating rate debt, securitizations, and retail mortgage loans.

- Many banks who contribute rates for calculating LIBOR were found to be manipulating their contribution to produce a favorable LIBOR rate.

- In July of 2017, the head of the Financial Conduct Authority (FCA), the entity that is responsible for regulating LIBOR, agreed that panel banks would no longer be required to submit LIBOR indications after December 31, 2021. The FCA has the power to discontinue LIBOR prior to or after this date.

- The Federal Reserve tasked the Alternative Reference Rate Committee (ARRC) with developing a new transparent reference rate based on market transactions. This would reduce the risk of manipulation that plagued LIBOR.

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What is global LIBOR exposure?

$200 Trillion of USD LIBOR-Based Contracts

Priced off of $500 million or less of underlying daily transactions

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Who is driving the transition from LIBOR?

With the Financial Conduct Authority (FCA) indicating that LIBOR production is not guaranteed beyond 2021, the ARRC expanded membership to help facilitate the implementation of a successful transition plan, coordinate and track planning across cash and derivative markets, and develop a term reference rate.

ARRC Members				
AXA	CME Group	Freddie Mac	FHLBanks	Deutsche Bank
Bank of America	LCH	GE Capital	The ICBA	FNMA
BlackRock	MetLife	Goldman Sachs	Wells Fargo	PIMCO
Citigroup	Morgan Stanley	HSBC	SIFMA	TD Bank
JP Morgan Chase & Co.	National Association of Corporate Treasurers	Government Finance Officers Association	The Loan Syndications and Trading Association	Intercontinental Exchange
World Bank Group			ISDA	
Ex Officio Members				
Board of Governors of the Federal Reserve	Federal Reserve Bank of New York	Federal Deposit Insurance Corporation	Securities and Exchange Commission	Commodity Futures Trading Commission
Bureau of Consumer Finance Protection	Office of Financial Research	Federal Housing Finance Agency	Treasury Department	Office of the Comptroller of the Currency

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What could replace LIBOR?

- In June 2017 the ARRC recommended the Secured Overnight Financing Rate (SOFR) as the rate that represents best practices for use in U.S. Dollar derivative and financial contracts.
- In April of 2018, the Federal Reserve Bank of New York began publishing the Secured Overnight Financing Rate (SOFR).
- In May, the CME Group launched a SOFR referenced futures contract. Trading has commenced at a faster pace than either Eurodollar Futures and Fed Funds Futures.
- Average daily volume is robust with nearly 600,000 contracts trading with a notional value of $1.3 trillion. But, in comparison to the LIBOR market the volume represents only 1% of LIBOR trading and SOFR futures remain illiquid.
- Currently there are more transactions underlying SOFR futures on a daily basis than underlie LIBOR.

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What is SOFR?

- The Secured Overnight Financing Rate, SOFR, has strong support from Prudential Regulators such as the Federal Reserve Board (FRB), The Federal Deposit Insurance Corporation (FDIC), and the Office of the Comptroller of the Currency (OCC) through the Alternative Rate Reference Committee (ARRC) of the Federal Reserve System.
- SOFR is a broad measure of the cost to borrow cash overnight, secured by Treasury Securities.
- SOFR is calculated daily based on overnight Treasury repurchase agreement rates (secured borrowings for financial institutions, including securities dealers, banks, REITS, insurers, and GSEs). The average daily volume for these transactions exceeds $750 billion.
- SOFR is transparent and transaction based.
- SOFR is posted every day to the New York Federal Reserve's website at 8:00 a.m.

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How are LIBOR and SOFR different?

- LIBOR is a forward-looking rate that is published for multiple common terms, such as 1 month, 3 months, and one year.
- SOFR is a backward-looking, overnight, risk-free rate that is closely correlated with money market rates. SOFR is based on actual transactions in a robust market.
- LIBOR is an unsecured rate and therefore includes an element of credit risk based on the perceived financial stability of the contributing banks.
- SOFR is based on transactions secured by Treasury collateral, and therefore does not have a credit risk element.
- LIBOR rates are fixed at the start of the interest period.
- SOFR rates float each day based on known transactions. SOFR rates are not fixed at the start of each interest period. Bonds, loans, and derivatives utilize average SOFR to calculate coupon payments.

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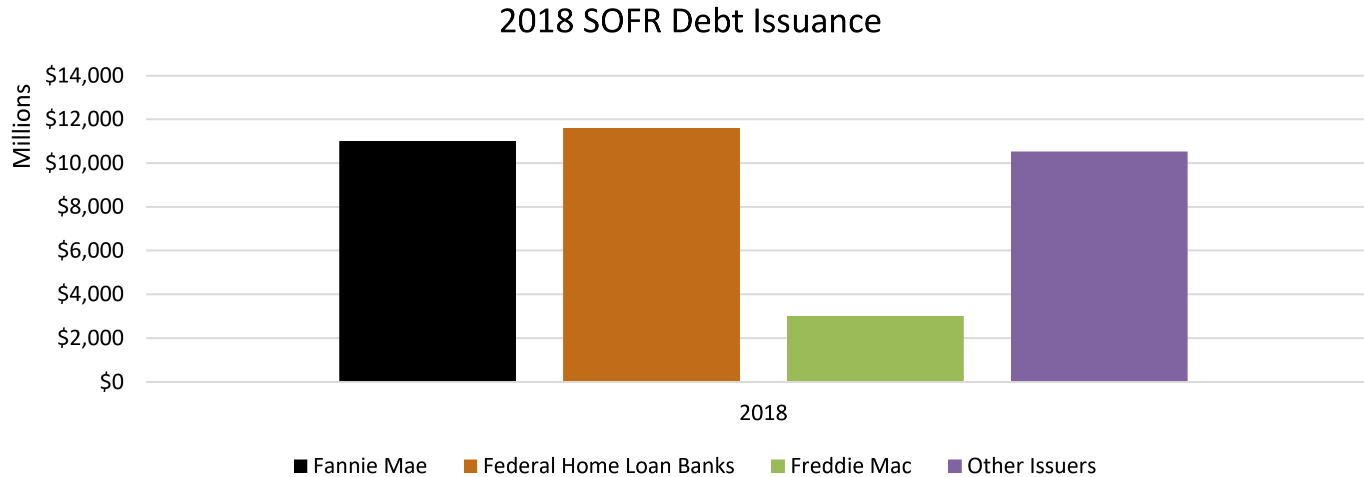
Is there SOFR indexed debt?



- The FHLB System recognizes its unique responsibility as the leading issuer of LIBOR linked securities to support the development of a LIBOR replacement.
- Multiple market entities have issued debt using the Secured Overnight Financing Rate, or SOFR, as the index including: FHLB System, FNMA, The World Bank, Credit Suisse, and MetLife.
- The FHLB System is the leading issuer of debt indexed to SOFR.

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What is the FHLB System LIBOR exposure?

- The FHLBanks have roughly $305 billion in variable rate Advances, which are primarily linked to LIBOR.
- The FHLBanks have roughly $340 billion in LIBOR indexed Floating Rate Notes (FRNs) outstanding. Most of these FRNs are maturing within the next 2 years.
- The FHLBanks have roughly $515 billion in total derivative contracts outstanding. The variable rate referenced in the majority of these contracts is LIBOR.
- The FHLBanks invest in certain floating rate Mortgage Backed Securities that use LIBOR as the coupon benchmark.

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Is there a SOFR Advance?

- Yes, the SOFR Advance serves as a source of liquidity and is priced according to the cost of funds for debt issued utilizing the SOFR reference rate.
- The Advance has a maturity of up to 120 months. The rate resets each business day* and interest accrues on an actual/360 day basis with quarterly payments. Principal is repaid at maturity. The Advance is generally not prepayable but may be issued with a call feature. See the Credit Policy Manual for more details on the SOFR Advance.
- The Advance rate is available upon special request, and as such, a rate is not posted to Members Only.
- This Advance is currently offered alongside the LIBOR Advance. Currently, the FHLB Cincinnati will not offer a LIBOR Advance with a coupon lockout past December 31, 2021.

*SOFR Advances will reset each Business Day, except that in respect of any interest period, the last two (2) Business Days of such interest period shall be a deemed a "suspension period." During a suspension period, the index for each day during that suspension period will be the index value for the reset date immediately after the first day of such suspension period. The suspension period may vary based on funding availability and market condition.

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Will my collateral position be affected?

- The FHLB is working to determine the total exposure of variable rate loan collateral that is indexed to LIBOR. The focus is to identify collateral that does not have a replacement index provision in the loan note or agreement.
- Loans that do not have a replacement index provision could have a lower market value or require a higher haircut. This would reduce the amount of Advances this collateral could support.
- The FHLB will need the cooperation of its Members who pledge variable rate loan collateral to assist in identifying language in the existing loan agreements that supports a replacement index for LIBOR.
- The FHLB plans to conduct a Member survey regarding this issue, and some surveys may be conducted during regularly scheduled loan review activities.

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What is FHLB Cincinnati monitoring?

- **Financial market liquidity for LIBOR and SOFR indices.** As more debt indexed to SOFR is issued, liquidity for the market will increase. This will allow a larger volume of derivative transactions based on SOFR, providing market participants a greater ability to hedge and offset interest rate risk.

- **Evolution of financial contract (including Advance application) language.** Fallback language outlines the mechanism for transitioning from LIBOR to a replacement index with the potential for a spread adjustment based on historic price differentials between LIBOR and its replacement.

- **Market consensus on how to treat legacy investments and derivatives.** This includes when to trigger the reference rate change between LIBOR and SOFR, and how to adjust the legacy LIBOR rates on these contracts.

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What should Members be monitoring?

- **Identify existing LIBOR transactions.** Quantifying the exposure the institution has to LIBOR, and how this transition will impact hedge effectiveness, interest-rate risk, basis risk, and valuations is vital to determining the potential financial impact to the organization.

- **Understand fallback language in existing contracts.** Review existing language in legacy contracts to determine trigger events, potential substitute indices, and calculation of interest rate and spread. It is important to determine if current language will ensure a smooth transition, or if amendments or renegotiation is needed for existing agreements.

- **Create language for new LIBOR transactions.** In new contracts, ensure that fallback language is robust enough to ensure a smooth transition to a new reference rate. This may require multiple iterations as LIBOR transition language continues to change.

- **Assess accounting, tax, and IT system implications.** Work to understand all the areas of the organization that could be affected by the transition to a new reference rate. Many systems will likely require changes.

- **Communication with your customers, counterparties and within your organization.** It is imperative that the industry and consumers work together to move to the new index to understand the risks and benefits.

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Is Fallback Language Standard?

Not at this time. Various contracts contain differing types of language.

- **Floating Rate Notes:** Typical contract language would direct the calculation agent to first poll a sample of banks and then convert to fixed-rate at the last published value of LIBOR if quotes are not received.
- **Corporate Loans:** Typical contract language appears to name the Prime Rate or the Effective Fed Funds Rate + a spread as the fallback if LIBOR was discontinued.
- **Securitizations:** Agency MBS allow Fannie Mae and Freddie Mac to name a successor rate if LIBOR was permanently discontinued, but typical contract language in other securitizations would require a poll of banks and then convert to fixed-rate at the last published value of LIBOR if quotes are not received.
- **Mortgages and Other Consumer Products:** Typical contract language in mortgages gives the noteholder the ultimate authority to name a successor rate if LIBOR was permanently discontinued, although it is unclear if the spread can be adjusted. Other consumer loans may be more varied but thus far seem to have similar flexibility.

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What is developing in the Marketplace?

- Safer language is still needed across financial products. Different products have moved in different directions. Some contracts have adopted new fallback language, many have not, and most new language tends to refer to terms such as “industry standards” that are legally ambiguous.
- The ARRC has released a set of Guiding Principles for contract language and is releasing additional sets of consultations regarding more robust contract language, looking for industry feedback.
- ISDA has issued trigger event and fallback waterfalls language for derivatives.
- Key fallback components include items such as “trigger event” which defines the event that initiates the transition process, replacement benchmark (such as SOFR), and spread adjustment to account for the difference between LIBOR and its successor benchmark.
- Market participants are considering an early trigger if the FCA found LIBOR to be non-representative of current market condition, or whether to allow an early opt-in period to move away from LIBOR.
- The ARRC is also discussing whether negotiated rather than hard-wired fallback language is more appropriate for business loans.

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