Alternative Reference Rates Committee : *SOFR Starter Kit Part I (also see Part II and Part III)*

Background on USD LIBOR

ARRC

ALTERNATIVE REFERENCE RATES COMMITTEE

What is LIBOR and how is it calculated?

LIBOR is a series of interest rates intended to reflect banks' average cost of short-term, wholesale unsecured borrowing. It is currently used in many financial products worldwide, from derivatives, to mortgages, to bonds, to corporate loans. It is currently calculated for five currencies and in seven "tenors," or lengths of time – like three-month or 12-month LIBOR.

Each business day, a panel of banks for LIBOR in each currency (16 banks for USD LIBOR) submit their estimates of the cost to borrow in wholesale unsecured funding markets. For each tenor, the upper and lower quartiles are removed, then the rest is averaged to determine the LIBOR rate for that day.

What are the problems with LIBOR? Why is LIBOR being replaced?

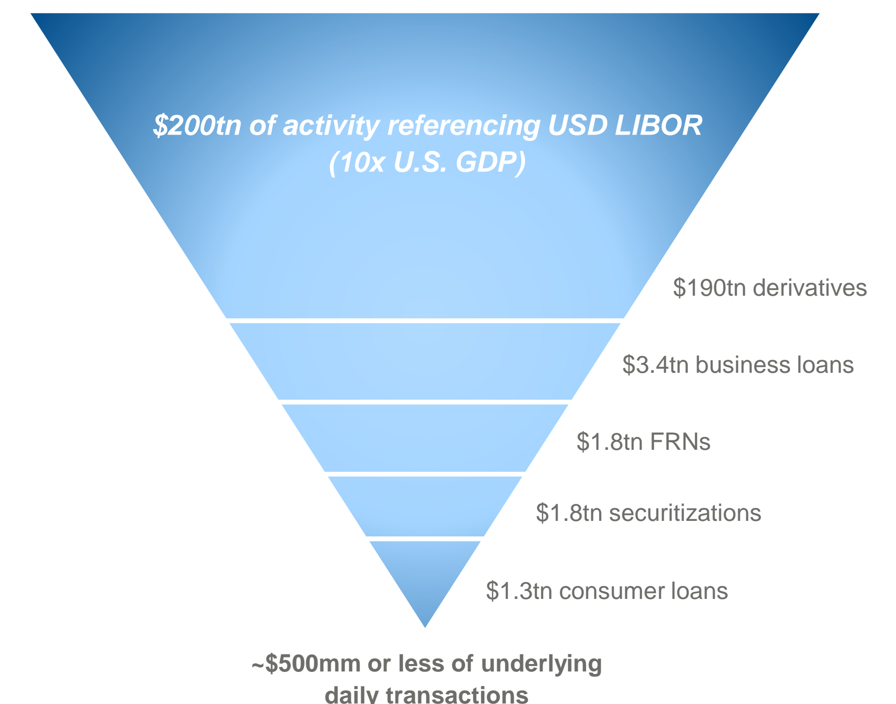
Changes in the way banks fund themselves have caused the **volume of transactions underlying LIBOR to decline considerably**. Today, the market for unsecured wholesale term borrowing by banks is not sufficiently active, with a relatively small number of transactions underpinning LIBOR. LIBOR is sustained through "expert judgment," which means panel banks submit estimates of their borrowing costs with little actual borrowing activity to validate them.

For example, on a typical day, the volume of three-month wholesale funding transactions by major global banks was about $500 million, and just seven daily transactions, on average, make up this volume. Compared to the $200 trillion of financial contracts referencing USD LIBOR, that number is miniscule.

This scarcity of transactions in underlying markets calls into question LIBOR's sustainability. Many LIBOR panel banks feel uncomfortable submitting estimates based on expert judgment. Several banks have already stopped providing LIBOR submissions, making LIBOR even more unstable and less representative of the market it is intended to represent.

In 2014, global regulators highlighted the financial stability risks associated with overreliance on LIBOR. In response, national working groups in jurisdictions worldwide—like the ARRC—were convened to support a transition away from LIBOR (and other LIBOR-like rates) by identifying robust alternative interest rate benchmarks anchored in deep, active markets. In 2017, those efforts were accelerated when the Financial Conduct Authority (FCA), the UK government body that regulates LIBOR, stated that it had exerted considerable effort persuading panel banks to continue submitting to LIBOR and that it brokered a voluntary agreement with the remaining panel banks to continue submissions through the end of 2021. In April 2020 following the outbreak of COVID-19, the FCA reaffirmed that timeline announcing that the central assumption that **firms cannot rely on LIBOR being published after the end of 2021** has not changed and should remain the target date by which **all firms should be prepared for LIBOR to be unusable.**

A relatively small number of underlying transactions underpin LIBOR



Source: Drawn from Table 1 and Figure 3 in the ARRC's Second Report, which depicts gross notional exposures as of year-end 2016.

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Alternative Reference Rates Committee

History of the ARRC and the Selection of SOFR

History of the ARRC

In 2014, the Federal Reserve Board and the New York Fed **convened the ARRC, a group of private-market participants tasked with identifying robust alternatives to USD LIBOR** and supporting a transition away from LIBOR.

Today, there are **over 300 member and nonmember institutions**—including banks, asset managers, insurers, and industry trade organizations—contributing to the ARRC's work, with the support of 13 official sector ex-officio members.

ARRC has broad participation across the financial services industry and representation from the official sector

ARRC

10 Industry Associations
12 Banks
9 Asset Managers, Insurers, & Other End Users
13 Official Sector (ex officio)
3 Financial Exchanges
3 Gov.-Sponsored Enterprises

ARRC Working Groups (includes members and non-members)

25+ Asset Managers & Insurers
50+ Banks & Fin. Service Firms
20+ Fin. Infrastructure & Consulting Firms
20+ Industry Associations

ARRC's Criteria to Select Alternative Rates

To identify robust alternatives to USD LIBOR anchored in observable transactions in deep and active markets, the ARRC developed the following criteria to evaluate potential alternative rates:

1. **Benchmark Quality:** Whether the market underlying the rate can reasonably be expected to remain sufficiently deep and active to support a robust reference rate
2. **Methodological Quality:** Whether the rate is produced in accordance with internationally-accepted best practices
3. **Accountability**: Whether compliance with best practices can be ensured
4. **Governance:** Whether the rate is produced subject to a governance structure that promotes the integrity of the benchmark
5. **Ease of Implementation**: How easily a transition to the rate could be done

Evaluation and Consultation Process

As part of its evaluation process, the ARRC considered a comprehensive list of potential alternatives, including:

- Term unsecured rates
- Overnight unsecured rates like the Overnight Bank Funding Rate (OBFR)
- Term secured rates
- Overnight secured rates like the Secured Overnight Financing Rate (SOFR)
- Treasury bill and bond rates

The ARRC was asked to consider alternative rates based on active and robust markets.

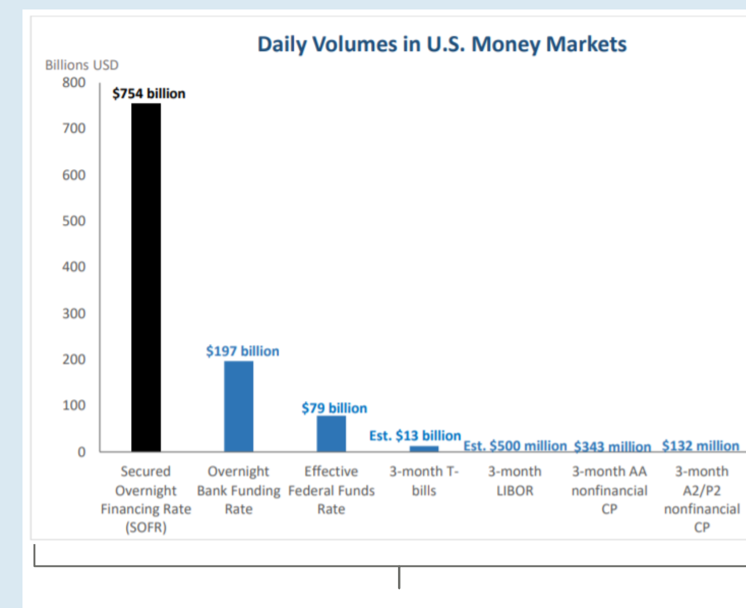
The ARRC formed an Advisory Group consisting of a diverse set of users of LIBOR-linked products active in a range of market sectors to ensure that its recommendations reflected a wide consensus of market participants. In addition, the ARRC published an Interim Report and Consultation laying out the possible rate choices and seeking market views as it moved to select a rate.

The ARRC ultimately concluded that a term unsecured lending rate would not be robust enough given the limited transactions, unstable samples of borrowers, and sensitivity to market stress that these markets exhibit. Although term secured rates were considered, it was determined that there is not sufficient trading to support such a rate.

After extensive discussion, the ARRC narrowed its list of potential alternatives to USD LIBOR to two rates that it considered the be the strongest candidates: an overnight unsecured rate (OBFR) and an overnight Treasury repurchase agreement (repo) rate (SOFR).

Selection of SOFR

In June 2017, the ARRC, with the support of a significant majority of its Advisory Group, announced it had selected SOFR as its preferred alternative to USD LIBOR. SOFR is a broad measure of the cost of borrowing cash overnight in the repo market collateralized by U.S. Treasury securities. Produced daily by the New York Fed, SOFR is robust, is based on a deep, active market with a diverse set of borrowers and lenders, is not at risk of being discontinued due to a scarcity of underlying transactions, and meets international best practices. *(See SOFR Starter Kit Part II for more).*



SOFR is a robust rate that is backed by significant transaction volume

Source: Drawn from Figure 3 in the ARRC's Second Report and represents the information available to the ARRC when selecting SOFR as its preferred alternative reference rate. This depicts average volumes over 2017H1, with the exception of 3-month T-bills, which are estimates from August and September 2017.