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The LIBOR Transition

LIBOR is a key benchmark interest rate underpinning many financial contracts, but it is scheduled to be discontinued starting at the end of 2021. This In Focus discusses efforts to transition away from the use of LIBOR in financial products in order to avoid disruption if LIBOR disappears.

LIBOR

What Is LIBOR? LIBOR refers to the London Interbank Offered Rate. It is privately determined by polling more than a dozen large global banks in London about the interest rate at which they can borrow for various lengths of time ("tenors") in U.S. dollars and four other currencies. Thus, at any point in time, there are several "LIBOR" rates. LIBOR dates back to the 1960s and has been published daily since 1986.

How Is It Used? LIBOR is a benchmark or reference rate that helps financial market participants gauge prevailing interest rates. In the United States, many financial instruments are tied to dollar LIBORs, including certain floating-rate loans, bonds, securitized products, and financial derivatives. For example, an adjustable mortgage rate might be set at LIBOR plus a fixed markup. Each month, the rate on the mortgage would be reset based on the prevailing LIBOR. A type of derivative called an interest rate swap might also reference LIBOR. One party to the swap would receive a periodic payment based on a predetermined fixed interest rate, while the other party would receive a payment tied to a rate that adjusts based on the current LIBOR. As of 2020, LIBOR was referenced in an estimated \$223 trillion of financial instruments.

What Was the LIBOR Scandal? In 2012, the Britishbased bank Barclays was fined by its British regulator and settled with the U.S. Justice Department, Commodity Futures Trading Commission (CFTC), and a group of states for manipulating LIBOR. Barclays was one of the banks that was polled to determine LIBOR. From 2005 to 2008, employees at Barclays submitted LIBOR data that did not accurately reflect Barclays' borrowing costs. They did so for two reasons: (1) to profit from Barclays' swaps trading based on LIBOR and (2) to mask weakness in Barclays' financial condition during the financial crisis. Subsequently, several other banks reached settlements with regulators for manipulating LIBOR and operating a derivatives cartel that involved sharing information on, among other things, LIBOR submissions. Private parties have also sued submitting banks over LIBOR manipulation.

An inherent weakness of LIBOR that made it potentially susceptible to manipulation is that on any given day there may be little or no actual borrowing by banks at the various tenors that are reported. In that case, polled banks submitted their best estimate of what their borrowing costs would be if

they wished to borrow, giving banks some discretion in what rates they reported. This problem grew following the financial crisis because banks borrowed less as a result of the large increase in bank reserves.

How Was It Reformed? The LIBOR scandal revealed that a rate determining the value of financial products worth trillions of dollars could be manipulated by employees at a handful of banks. Policymakers initiated several reforms in response to the scandal. First, publication of the rate was transferred from the British Bankers Association and made more transparent. Second, production of the rate became regulated by the British financial regulator. Third, calculation of the rate was modified to increase the weight on actual data and reduce the weight on "best guesses" in the absence of borrowing. Fourth, policymakers have encouraged a transition away from the use of LIBOR.

What Happens Next? For all but the most popular currencies and tenors, there is insufficient borrowing to determine LIBOR using only borrowing data, so data quality and integrity remains questionable. Participation in the LIBOR sample is voluntary and confers limited benefit, and participants are leery of potential further legal exposure. As a result, British regulators have announced that LIBOR will be discontinued between December 31, 2021, and June 30, 2023.

The LIBOR Transition

Given LIBOR's shortcomings and its planned disappearance after 2021, policymakers and market participants are actively encouraging financial institutions to transition from LIBOR to alternative benchmarks. It is unclear, however, whether sufficient progress has been made to avoid disruption when LIBOR disappears.

What Risks Does the LIBOR Transition Pose? Financial firms using LIBOR face legal, operational, credit, regulatory, and reputational risk. In addition, the LIBOR transition may pose systemic risk—the risk that a disorderly transition could cause widespread financial instability.

Financial contracts using LIBOR may include "fallback language" that explicitly addresses what would happen if LIBOR is discontinued. These contracts are less problematic than "legacy contracts" that do not include fallback language and mature after LIBOR's disappearance. If unaddressed, legacy contracts could stop functioning or lead to legal action between parties to the contracts. Parties to a legacy contract can mitigate these risks by amending contracts to incorporate robust fallback language. However, in many cases, all parties must agree to an amendment.

The transition has faced hurdles—financial firms continue to reference LIBOR in new financial instruments even though its eventual disappearance has been well known for years. In fact, it is estimated that the value of outstanding assets referencing LIBOR has increased by \$24 trillion since 2016. In many cases, recent instruments include fallback language—although its robustness will not be tested until LIBOR disappears. The value of assets lacking robust fallback language is unknown.

Table I. Value of Assets Referencing Dollar LIBOR (as of end of 2020, trillions of \$)

Asset Class	Currently Outstanding	Maturing After June 2023
Derivatives (notional value)	\$214	\$68
Loans	\$6	\$3
Bonds	\$1	\$0.3
Securitizations	\$2	\$2
Total	\$223	\$74

Source: CRS calculations based on ARRC data.

Who Is Leading the LIBOR Transition? The Federal Reserve convened the Alternative Reference Rates Committee (ARRC), a private group of market participants, to develop and oversee the LIBOR transition. ARRC has set out a timetable and a series of voluntary best practices. It has promoted the Secured Overnight Funding Rate (SOFR) as an alternative to LIBOR. ARRC has also addressed regulatory, tax, legal, and accounting obstacles to replacing LIBOR. Internationally, the Financial Stability Board has coordinated LIBOR reform and the International Swaps and Derivatives Association (ISDA) has addressed transition issues affecting derivatives markets.

ARRC has provided model fallback language for debt instruments that financial actors can voluntarily incorporate into their legacy contracts. For derivatives, ISDA has issued a protocol that automatically includes standard fallback language in new contracts using ISDA definitions and provides market participants with a streamlined mechanism to amend legacy contracts to incorporate the language. Major clearinghouses require derivatives they clear to include the ISDA protocol. As a result, the legacy contract problem is easier to address for derivatives.

What Are Policymakers Doing? To date, U.S. policymakers have mainly supported ARRC's recommendations, which are not binding on financial market participants. Financial regulators have taken various steps to reduce the transition risks at the institutions that they regulate. Bank regulators have released a joint statement that summarizes how banks should manage LIBOR transition risk and explains how this risk will be monitored by examiners, and have required banks to stop entering into new contracts using LIBOR by the end of 2021. Entities regulated by the Federal Housing Finance Agency—Fannie Mae, Freddie Mac, and the Federal Home Loan Banks—have plans to discontinue their use of

LIBOR. The Securities and Exchange Commission (SEC) announced that companies should determine whether LIBOR poses material risks that they should disclose and made LIBOR-transition readiness a priority in SEC exams in 2020. In June 2020, the Consumer Financial Protection Bureau proposed a rule to allow lenders to replace LIBOR in certain mortgage and consumer loans before it became unavailable, subject to disclosure and other requirements. The CFTC has used no-action letters to ensure that amendments to legacy contracts do not trigger regulatory requirements. Similarly, the Internal Revenue Service has clarified that certain amendments to legacy contracts do not have tax consequences.

Policymakers have also debated whether a legislative solution is required. In April 2021, New York enacted a law overriding legacy contracts governed by New York law that lack adequate fallback language. Some policymakers have called for similar legislation at the federal level, and the House Financial Services Committee held a hearing on April 15, 2021, on a discussion draft bill that would create an override process led by the Federal Reserve.

Policymakers could also reduce official use of LIBOR. Under 20 U.S.C. §1087-1, certain payments to student loan lenders are based on LIBOR. The Small Business Administration, Department of Housing and Urban Development, and Treasury also have federal loan programs that use or allow the use of LIBOR through regulation.

SOFR: A Potential LIBOR Replacement

What Is SOFR? SOFR is the interest rate on an overnight repo collateralized by Treasury securities. It is compiled by the New York Federal Reserve Bank and has been published since April 2018. It is ARRC's preferred alternative to LIBOR. Since its inception, the use of SOFR as a reference rate has grown quickly, but remains modest compared with LIBOR.

What Is a Repo? Economically, a *repo* (repurchase agreement) is a fully collateralized short-term loan between two financial institutions. Legally, a repo is structured as a two-part sale. Initially, the borrower sells the lender a security, such as a Treasury bond. At a later, pre-ordained date, the borrower repurchases the security at a higher price. The difference in price between sale and repurchase constitutes the borrowing rate. The repo market is one of the largest short-term funding markets.

What Are the Differences Between SOFR and LIBOR?

Some are concerned that differences between SOFR and LIBOR explain why LIBOR has maintained its dominant position, although inertia may also play a role. Reasons that LIBOR may be preferred as a benchmark include its availability at different tenors and long history, which helps predict how it will perform. In contrast, reasons why SOFR may be preferred include its greater trading volume and the fact that it is based solely on actual trading. These factors make it more robust and less prone to potential manipulation. Finally, LIBOR includes credit risk and SOFR does not; for some financial products, referencing a rate with credit risk is desirable; but for others, it is not.

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