

LIBOR Transition

At a Glance

September 2020

The financial service industry is making a transition that may affect you

What is LIBOR?

LIBOR, the London Interbank Offered Rate, is a systemically important interest rate benchmark, aimed at providing an indication of the average rates at which banks could obtain unsecured funding from each other. Various regulatory authorities have announced their support for a reduced reliance on IBORs with LIBOR expected to be phased out by the end of 2021. This rate has often been used as an interest rate benchmark rate for various financial products ranging from capital markets to lending products including mortgages.

In addition to LIBOR, EONIA (Euro Overnight Index Average) will be ceasing publication on 3 January 2022 and there are a number of benchmarks that reference LIBOR in their calculations. These benchmarks will be reformed, examples include SOR (Singapore Dollar Offer Rate) and THBFIX (Thai Baht Fix).

What are Risk Free Rates (RFRs)?

RFRs are interest rate benchmarks that seek to measure the overnight cost of borrowing cash by banks, underpinned by actual transactions. Three commonly referred rates as examples include:

- SOFR (Secured Overnight Financing Rate) measures the cost of borrowing cash overnight collateralized by United States Treasury securities.
- SONIA (Sterling Overnight Index Average), €STR (European Short Term Euro Rate) measures the cost of interbank unsecured cash borrowing by banks with bank and nonbank financial counterparts.

Following guidance from the Financial Stability Board (FSB), regulatory led public/private working groups were established to identify and promote adoption of robust alternate risk free rates (ARFRs) that were based on substantial underlying transactions that seeks to measure across various LIBOR currency jurisdictions (see table below). Most RFRs were created as a response to the end of LIBOR; while SONIA, which was historically referenced on overnight transactions, was reformed.

LIBOR versus RFR

	LIBOR	RFR
Term	Term rate benchmark e.g. 3M, 6M, 1Y	Compounding overnight rate (no term structure)
View	Forward-looking	Backward-looking
Secured?	Unsecured	Some based on a secured O/N rate, others unsecured
Credit Risk	Embedded credit risk component due to bank risk	No credit risk element in the O/N rate
Derivation	Based on a poll of 20 banks	Exclusively from actual transactions

Why transition from LIBOR to RFRs?

LIBOR is predominantly based on submissions by certain banks, including Citi to the ICE Benchmark Administration (IBA); a unit of Intercontinental Exchange (ICE). However, various regulatory authorities have announced their support for a reduced reliance on LIBOR, and more generally on IBORs of other currencies (see table below). LIBOR is currently expected to be phased out by the end of 2021.

	Jurisdiction	ARFR	Rate Name	Administrator	Description
					UNSECURED
	Working Group on Sterling Risk-Free Reference Rates	SONIA	Sterling Overnight Index Average	Bank of England	Rate covers overnight wholesale deposit transactions. Daily transactions value ~£50Bn
					SECURED
	Alternative Reference Rates Committee	SOFR	Secured Overnight Financing Rate	FED Bank of New York	Rate covers multiple overnight repo market segments. Daily transactions value ~\$700Bn
					SECURED
+	National Working Group on Swiss Franc Reference Rates	SARON	Swiss Average Rate Overnight	SIX Exchange	Rate reflects interest paid on interbank overnight repo average. Daily trade & quote ~ CHF 7.5Bn
					UNSECURED
	Study Group on Risk- Free Reference Rates	TONAR	Tokyo Overnight Average Rate	Bank of Japan	Rate captures overnight call rate market. Underlying market is ~JPY 15Tn
					UNSECURED
*** * * ***	Working Group on Risk- Free Reference Rates for The Euro Area	€STR	European Short Term Euro Rate	European Central Bank	Rate captures overnight wholesale deposit transactions. Daily transaction volume ~ €30Bn (projected)

A lack of interbank transactions means that the rates are based predominantly on the expert judgement of Panel Banks submitting the rate. The FCA (July'17) announced that it will no longer compel those banks to submit to LIBOR after 2021 and availability of LIBOR post 2021 is not guaranteed.

Regulators globally have stressed the importance for firms to prepare and be ready for LIBOR transition.

Why is carefully managing the LIBOR transition important?

LIBOR is entrenched in market activity and underpins more than \$200tn of USD LIBOR contracts across a variety of products (predominantly derivatives). It is estimated that \$36.6tn¹ will still be outstanding after the end of 2021 and this number continues to grow as new contracts continue to reference LIBOR.

Replacing such a critical tool of the financial system is of course a detailed and challenging task, and we recognise that considerable work is needed to prepare for an environment in which financial instruments are no longer linked to IBORs. Given LIBOR's extensive use across financial markets, the transition away from LIBOR presents various risks and challenges to financial markets and institutions, including Citi. These include, but are in no way limited to:

1. Contractual robustness: Current fallback language in contractual documentation was only intended to deal with a temporary unavailability of LIBOR and not a permanent discontinuation. As a result, the industry has been defining what the correct robust fallback language should be and the mode of adoption.

ISDA has been leading this charge for derivatives, with the ISDA IBOR Protocol and Supplement expected to be published in September/October 2020. Regulator has published recommended fallback language for a number of cash products including bilateral business loans.² Client action will likely be required to update contracts of LIBOR trades maturing post 2021.

¹ Second Report of the Alternative Reference Rates Committee (Federal Reserve Bank of New York, 2018)

² New York Federal Reserve - Alternative Reference Rates Committee - Fallback Contract Language at https://www.newyorkfed.org/arrc/fallbacks-contract-language

- 2. Availability of a Term RFR: End users of cash products, particularly loans, have a preference for forward-looking term rates given their main concern of having certainty over future cash flows. The development of forward-looking term RFR will require deep and liquid derivative markets in RFR products. In the UK and US, it is expected that term references rates will be published by the end of 2020 and the first half of 2021 respectively.
- **3. Operational complexity:** LIBOR is used in a multitude of internal systems, models, processes and controls. Significant effort and lead-time will be required to scope and, where necessary, replace or revise existing infrastructure to accommodate the new RFRs.

Citi and the Private Bank's preparation for benchmark transitioning

Citi Private Bank in conjunction with all other Businesses and Functions across Citi are working hard to prepare for benchmark transitioning, at both an industry level as well as within the full range of our businesses. Citi is actively involved in industry efforts to manage the transition from IBORs and is working through internal steps to balance benchmark transitioning with our obligations to our clients and counterparties.

Citi recognizes the uncertainty surrounding LIBOR post 2021 and the systemic risks of not sufficiently planning for LIBOR discontinuation. Accordingly, in 2018, Citi established a LIBOR

governance and implementation program that includes Senior Management involvement and operates globally across Citi's businesses and functions.

Citi has also been participating in a number of the regulatory led working groups, including the Alternative Reference Rates Committee convened by the Federal Reserve Board to promote and advance development of alternative reference rates and to identify and address the potential challenges of the transition to such rates.

What's next?

To the extent you hold an impacted product with Citi Private Bank, we will contact you with additional information specific to your product prior to the cessation of LIBOR to ensure a smooth transition and to minimize impact to you.

You can expect to see new product offerings transition away from an underlying LIBOR reference to an alternative rate beginning in 2021. Some products may no longer be available using a LIBOR reference as we approach 2022.

We also encourage you to consider the impact of benchmark transitioning on your own business, using independent advisors if appropriate. You can refer to the Citi Private Bank's FAQs (https://www.privatebank.citibank.com/home/fresh-insight/benchmark-transitioning-away-from-libor.html), which provides guidance to a number of commonly asked questions across various products that our clients may hold.

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