LIBOR Transition

What is LIBOR?

Interbank Offered Rates (IBORs), commonly referred to as the London Interbank Offered Rate (LIBOR), are interest rate benchmarks, aimed at providing an indication of the average rates at which banks can obtain unsecured funding from each other in various currencies. Various regulatory authorities announced their support for a reduced reliance on IBORs, with the majority of LIBOR settings ceasing at the end of 2021 and the remaining USD LIBOR tenors will cease on 30 June 2023, detailed in Figure 1. LIBOR has often been used in the industry as an interest rate benchmark rate for various financial products ranging from capital markets to lending products, including mortgages.

In addition to LIBOR cessation, there are a number of other benchmarks that reference USD LIBOR in their calculations, which will be reformed including 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. Examples of three common RFRs include:

- **SOFR** (Secured Overnight Financing Rate) measures the cost of borrowing cash overnight collateralized by United States Treasury securities.
- **SONIA** (Sterling Overnight Index Average) and **€STR** (European Short Term Euro Rate), which measure the cost of interbank unsecured cash borrowing by banks, respectively in GBP and Euros, with bank and non-bank 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 (RFRs) that were based on substantial underlying transactions to replace the various LIBOR currency rates.

LIBOR versus RFR

	LIBOR	RFR
Term	• Term rate benchmark e.g. 3M, 6M, 1Y	• An overnight rate with some establishing term rates[1]
View	• Forward-looking	• Backward-looking with some establishing forward-looking term rates[1]
Secured?	• Unsecured	• Some based on a secured overnight rate, others unsecured
Credit Risk	• Embedded credit risk component due to bank risk	• Near to risk free, as there is no bank credit risk or term liquidity premium embedded
Derivation	• Based on a poll of 20 banks	• Exclusively from actual transactions

[1] Forward-looking term rates have been established for USD (Term SOFR), GBP (Term SONIA Reference Rates) and JPY (TORF). Regulatory led working groups have published recommended term cases for Term SOFR and Term SONIA with restrictions of use.

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). On 5 March 2021, the ICE Benchmark Administration (IBA) announced expected LIBOR cessation dates (see table below).

Figure 1: Common RFRs and respective LIBOR cessation dates

Jurisdiction	RFR	Rate Name	Administrator	Description	Cessation Date
USA	SOFR	Secured Overnight Financing Rate	Federal Reserve Bank of New York	SECURED Multiple overnight repo market segments	1-week, 2-Month, December 31, 2021 All other settings: June, 30 2023
UK	SONIA	Sterling Overnight Index Average	Bank of England	UNSECURED Overnight wholesale deposit transactions	December 31, 2021
Switzerland	SARON	Swiss Average Rate Overnight	SIX Swiss Exchange	SECURED Interest paid on interbank overnight repo average	December 31, 2021
Japan	TONA	Tokyo Overnight Average Rate	Bank of Japan	UNSECURED Overnight call rate market	December 31, 2021
EU	EuroSTR	European Short Term Euro Rate	European Central Bank	UNSECURED Overnight wholesale deposit transactions	December 31, 2021

The FCA has mandated that a synthetic LIBOR rate for the 1-month, 3-month and 6-month tenors of JPY and GBP LIBOR is published till 31 December 2022; the GBP synthetic rate may continue subject to FCA consultations. Synthetic LIBOR can only be used in legacy LIBOR contracts and all new use is prohibited from 1 January 2022.

Why is carefully managing the LIBOR transition important and how is Citi Private Bank ("CPB") preparing?

LIBOR is entrenched in market activity and underpins more than US$200tn of USD LIBOR contracts across a variety of products (predominantly derivatives).

Given USD 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**: Legacy fallback language in contractual documentation, if any, was only intended to deal with a temporary unavailability of LIBOR and not a permanent discontinuation. Accordingly, Citi Private Bank had updated its loan documentation to incorporate robust fallback language in line with industry guidance, where a LIBOR rate is offered.

   International Swaps and Derivatives Association (ISDA) published the Amendments to the 2006 ISDA Definitions (the "IBOR Fallbacks Supplement") with robust fallbacks for derivative trades, which went into effect on January 25, 2021. For derivatives linked to LIBOR entered into with us after that date, the IBOR Fallbacks Supplement is automatically incorporated into its terms. The fallback language contained in the IBOR Fallbacks Supplement prescribes the basis on which, when LIBOR is discontinued, it will be replaced by an RFR including an adjustment spread.

2. **Availability of a Term or Compounded in Arrears 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, whereas RFRs are backward-looking. Unlike LIBOR, there are two generic rate types (Term and Compounded in Arrears) which CPB will plan to offer.

   The development of a forward-looking term RFR will require deep and liquid derivative markets in RFR-linked products. Forward looking Term SONIA and Term SOFR have already been published.

   Alternatively, the industry is relying on various rate methodologies to reduce reliance on availability on Term Rates. The most common methodology is to compound RFR in arrears, which applies the average rate compounded daily over the relevant period, for example 1 month. There is further variability in how the 'Compounded in Arrears' methodology is applied, which may have an impact to a hedge position when applying industry standards.

3. **Operational complexity**: LIBOR is used in a multitude of internal systems, models, processes and controls. Citi Private Bank will be operationally ready in line with industry expectations.

What's next?

Existing LIBOR Products: To the extent you hold an impacted product with CPB, we will contact you with additional information specific to your product prior to the cessation of the remaining USD LIBOR settings to ensure a smooth transition and to minimize impact to you.

Existing CPB Hedged Loans: To the extent you have a CPB loan hedged by a swap that you have traded with CPB, the industry standard replacement rate methodology for loans differs from the ISDA fallback standard methodology for the swap. We will therefore contact you prior to LIBOR cessation to discuss your loan and swap positions and offer you the ability to actively convert your swap methodology with a solution that could be an alternative to the industry standards[2].

New Product Offerings: New product offerings using RFRs were established and transitioned away from LIBOR in 2021.

The US regulatory agencies have encouraged banks to cease entering into new contracts that use USD LIBOR after 31 December, except in very limited risk management circumstances. CPB are following the regulatory guidance on new use of USD LIBOR.

CPB does not provide tax advice. We encourage you to obtain any potential tax implications and to consider the impact on you and any potential change in value of a product that you hold as a result of a change in the benchmark for such product from LIBOR to a RFR or an alternative benchmark, using independent advisors if appropriate. Your overall impact should be considered using independent professional advisors beyond tax as appropriate. You can refer to the Citi Private Bank's **FAQs** which provides guidance to a number of commonly asked questions across various products that our clients may hold.

[2] CPB may offer an interest rate swap using the same market conventions as the loan RFR, in most cases compounded in arrears with a 5-day lookback period. You should be aware that this rate will not be published by Bloomberg or other providers. You should therefore discuss with your independent advisor if this alternative to reduce basis exposure between the loan and the swap is most appropriate for you.