<u>FAQs on LIBOR and SOR Transition</u>

1. What is LIBOR and why is it important?

The London Interbank Offer Rate (LIBOR) is a benchmark reference rate for floating rate transactions for bonds, derivatives, loans, securitizations etc and it is administered by Intercontinental Exchange (ICE) Benchmark Administration Limited. LIBOR is arguably the most important Inter-Bank Offered Rate (IBOR) used in the global financial markets underpinning more than $400 trillion in transactions globally. LIBOR is calculated by submissions from various leading banks that estimate the rate that would be charged to borrow from other banks on an unsecured basis from overnight to 12 months. The rate is quoted in GBP, USD, EUR, Swiss Franc (CHF) and Japanese Yen (JPY) across 7 different types of maturities.

2. Why is reform required?

a. Decreasing Transaction: Post the financial crisis, changes to bank capital requirements resulted in a significant decrease in transaction volumes in the unsecured inter-bank lending market - upon which LIBOR is based. With insufficient transaction data, LIBOR submissions have increasingly relied on expert judgement from the panel banks. Regulators have therefore grown increasingly concerned about the long-term sustainability of the benchmark and have decided to pre-empt any further possible deterioration by indicating their preference of an end to LIBOR. In addition to this, even panel banks have expressed discomfort about providing submissions based on judgements with little underlying borrowing to validate their judgements and as a result Financial Conduct Authority (FCA) had to persuade panel banks to continue submitting to LIBOR till the end of 2021.

b. LIBOR Scandal: The beginning of the end of LIBOR started in 2012 when the LIBOR scandal rocked the financial markets across the world. The submissive nature of the rate instead of an actual transaction-based approach led many top banks to rig the rates. The scandal had a widespread implication on the financial services industry as the rate was used as a benchmark across various products totaling trillions. As a result, global regulators initiated the process to transition away from LIBOR and move towards a rate which does away with all the shortcomings associated with LIBOR.

3. Who and which products are affected by LIBOR transition?

All market participants, including State Bank of India, that have exposure to various financial products using LIBOR as a reference rate will be affected. The transition will have far reaching impact and wide complications as LIBOR is deeply embedded in the global financial markets.

As the Singapore Dollar Swap Offer Rate (SOR) utilises USD LIBOR in its computation, the expected discontinuation of LIBOR end-2021 would impact the sustainability of SOR.

4. When will LIBOR be phased out?

LIBOR is expected to cease at the end of 2021, when the panel banks obligation to submit references for LIBOR calculation ends. It is uncertain if, and for how long, the various LIBOR rates will be published after that time, but the regulators have already indicated that they do not expect LIBOR to continue lingering in the markets for so long. Even if LIBOR continues in the market for some period after the end of 2021, it will likely cease to be representative in the market.

5. Which rates are likely to replace LIBOR?

Risk-free rates or "RFRs" are likely to replace LIBOR. RFRs are overnight interest rate benchmarks which are perceived by the FCA and other regulators to be more representative and reliable than LIBOR. This is because these benchmarks are intended to be based on liquid markets and so they can be calculated by reference to actual transactions. Several RFR working groups were set-up across a range of countries to identify alternative RFRs for the relevant currency. The RFR which has been chosen by those working groups for each currency is shown below.

LIBOR currencies	Proposed replacement	Transaction Types
USD	Secured Overnight Funding Rate (SOFR)	Secured
GBP	Sterling Overnight Index Average (SONIA)	Unsecured
Euro	EuroShort-termRate (ESTR)	Unsecured
CHF	Swiss Average Rate Overnight (SARON)	Secured
JPY	Tokyo Overnight Average Rate (TONAR)	Unsecured
SOR	Singapore Overnight Rate Average (SORA)	Unsecured

In addition to the RFRs mentioned above, some currencies have other IBORs, such as EURIBOR in the Eurozone and TIBOR in Japan, SIBOR in Singapore. It is possible that, in some cases, market participants may choose to use these rates alongside the relevant RFR and in place of Euro LIBOR or Japanese Yen LIBOR respectively. However, as mentioned above, some of these IBORs are subject to reform because they suffer from similar issues to LIBOR and so market participants may prefer to use RFRs instead.

6. What is SORA? Where can I get data on this transition?

The Singapore Overnight Rate Average (SORA) has been published daily by the Monetary Authority of Singapore (MAS) since 1 July 2005. SORA is the volume-weighted average rate of borrowing transactions in the unsecured overnight interbank SGD cash market in Singapore between 8.00am and 6.15pm. The historical series can be downloaded from the MAS website at: https://eservices.mas.gov.sg/Statistics/dir/DomesticInterestRates.aspx

7. Will the proposed Alternative Reference Rates (ARRs) differ materially from LIBOR?

The ARRs differ from LIBOR in three main ways:

a. ARRs are overnight rates which are published at the end of the overnight borrowing period. This means they are “backward-looking”. In contrast, LIBOR is a term rate (i.e. it is a rate to borrow for a period of time such as 3 months or 6 months) and it is published at the beginning of the borrowing period. This means LIBOR is “forward-looking”.

b. LIBOR also includes a premium for interbank credit risk (i.e. an additional amount to account for the risk that the borrowing bank may not be able to repay the interbank borrowing). ARRs, which are overnight rates and, in some cases, secured do not include this premium or include a reduced premium.

c. LIBOR also measures the same market in all currencies (i.e. the unsecured interbank lending market). The ARRs measure different markets. For example, the ARRs for Sterling, Japanese Yen and Euro are based on unsecured markets whereas the ARRs for US Dollar and Swiss Franc are based on secured markets. This means that different ARRs are likely to behave slightly differently.

8. How does SORA compare with SOR

SORA is an overnight rate for cash transactions in the overnight funding market while SOR is a foreign exchange (FX) swap implied interest rate derived rate for SGD interest rate derivative transactions in the USD/SGD FX swap market.

	SOR	**SORA**
Definition	Effective rate of borrowing SGD synthetically, by borrowing USD and swapping for SGD	Average rate of borrowing transactions in the unsecured overnight interbank SGD cash market in Singapore
Methodology and inputs	Volume- weighted average rate of USD/SGD FX swap transactions, with USD LIBOR as an input	Volume- weighted average rate of transactions reported by Reporting Banks in Singapore to MAS
Administrator	ABS Benchmarks Administration Co	MAS
Tenor	Overnight, 1 -month, 3-month, 6-month	Overnight

9. What impact will LIBOR/SOR Transition have?

Given that LIBOR is widely used, this transition may impact (amongst other things) existing products as well any future contracts using LIBOR as a reference rate, systems and processes and tax and accounting treatment.

Some of the impacts of LIBOR/SOR discontinuation are considered below.

a. **Payments under a product may be affected**: If payments under a product such as a loan, deposit, bond or a derivative are calculated by reference to LIBOR, the consequences of LIBOR discontinuation will depend on the terms of the contract. The contract may not specify what should happen if LIBOR/SOR is discontinued or, if it does, the so-called "fallbacks" or consequences may not be suitable. Alternatively, fallbacks may apply which result in the application of a new benchmark in place of LIBOR/SOR or the parties may agree to apply a new benchmark. Depending on how that new benchmark compares to LIBOR/SOR, this may mean that payments under that product may be more or may be less than they would otherwise have been.

b. **The value of the product may change**: A change in benchmark may also affect the value of the product (i.e. the mark-to-market value of a derivative or the secondary market value of a certificated deposit, loan or bond) so that it is worth more than or less than it would otherwise have been. If the value of a product changes, this could also have other implications, for example, in relation to tax.

c. **Operations and systems may be impacted**: If a backward-looking overnight rate is used in place of LIBOR/SOR, interest will be calculated at the end of the interest period. Operations and systems which currently rely on the interest rate being known at the start of the period may therefore need to be updated to deal with this change. LIBOR may also be embedded within systems and infrastructure more generally and so if LIBOR/SOR is discontinued, those systems and infrastructure may need to change.

d. **Impact on hedging arrangements:** A loan with an interest payment obligation which is hedged by a derivative may be impacted due to this transition. Mismatches between the way in which the loan and the derivative operate upon LIBOR/SOR being discontinued may impact the application of the hedge accounting rules to your financial arrangements.

10. How do I prepare for end of LIBOR and SOR?

If you currently have or transact in financial products e.g. loans, derivative products, cash market products (business loans, syndicated loans, retail mortgages, floating rate notes, perpetual bonds and banks' capital instruments), as well as outstanding debt securities with resettable interest rate that use LIBOR or SOR as the interest rate benchmark, the cessation of LIBOR and SOR means that these products will be using a new interest rate benchmark. Banks are working to ensure that the transition from LIBOR/ SOR is smooth and with minimal impact to you, financially or otherwise.

Since it will require changes in systems, operations, accounting and other processes, please start reviewing the changes needed, as these will take time to implement

We will contact you in due course to consider alternative option(s) before the transition takes place at the end of 2021.

11.What are fallbacks and are existing fallback language sufficient?

Fallbacks are the contractual provisions that determine what rate counterparties should use in the event that the initially agreed upon benchmark rate is not available. Proposed fallback language being developed across the market considers new concepts and terminology, such as permanent cessation triggers and pre-cessation triggers, as well as the methods for how an alternative rate should be determined.

In general, most existing fallback language was written to address a situation where the benchmark was temporarily unavailable, rather than its permanent cessation. Consequently, contracts may revert to rates which are not appropriate for their remaining duration, which could lead to contractual difficulties.

For legacy derivative contracts, the ISDA 2020 IBOR Fallbacks Protocol ("the ISDA Protocol") may be used to incorporate new fallback language. For derivatives, which do not use ISDA master agreements and definitions, counterparties may need to bilaterally negotiate new fallback language for their contracts.

In the cash space, amendments of existing LIBOR/SOR contracts may become more complicated if there are multiple parties to a transaction. Robust fallback language should be included in all new and refinanced LIBOR/SOR-referencing loan contracts. Remediation will otherwise be required to amend existing LIBOR/SOR-referencing contracts.

12. What will happen to my outstanding loan if I do not want to change my rate, even when LIBOR/SOR is discontinued?

When LIBOR/SOR is discontinued, your loan interest payment will be calculated using a 'fallback' rate or other alternative provisions specified in the terms and conditions of your loan contract. You should start preparing for the transition as early as possible by reviewing the terms and conditions of your loan contract to understand the consequential implications and actions required. We will reach out to you in due course to discuss the options that are available to you as a borrower before LIBOR/SOR is discontinued.

13. Regarding loans, will we be expecting the banks (lenders) to revise the loan margin in view that the floating rates will be different?

Unlike SOR, which is quoted in 1-month, 3-month and 6-month tenors, SORA is an overnight rate and quoted only in an overnight tenor. Hence, SORA lacks a term and a credit risk premium, which results in it typically being lower than SOR. In order for SORA to be referenced for lending over a fixed term, an adjustment spread over SORA would likely need to be included by lenders.

For more FAQs, please visit the ABS website at: https://abs.org.sg/benchmark-rates/faq

14.What will happen to Singapore Inter Bank Offered Rate(SIBOR)?

SORA and SIBOR are different SGD benchmarks that are determined on a different basis. On 29 July 2020, ABS, SFEMC, and SC-STS jointly issued a report on SIBOR Reform and the Future Landscape of SGD Interest Rate Benchmarks ("Report"). The Report recommended the discontinuation of SIBOR, to facilitate a transition to the Singapore Overnight Rate Average ("SORA") as the main interest rate benchmark for SGD financial markets and recommended for the discontinuation of SIBOR by end -2024.

The Association of Banks in Singapore ("ABS"), the Singapore Foreign Exchange Market Committee ("SFEMC") and the Steering Committee for SOR & SIBOR Transition to SORA ("SC-STS") (collectively the "Committees") have set following time lines for SIBOR discontinuation, vide media release dated 11 December 2020:

- 1-month and 3-month SIBOR will be discontinued in four years' time, by the end of 2024.
- The 6-month SIBOR will be discontinued three months after the discontinuation of the 6-month SOR.
  (Noting that there could be delays in the discontinuation of 6-month SOR to mid-2023,SC-STS will closely monitor the timing of USD LIBOR cessation to determine if the discontinuation of 6-month SIBOR should be delinked from the 6- month SOR discontinuation, and take place in 2022 as originally intended)
- To reduce the stock of existing legacy SIBOR contracts at the point of SIBOR's discontinuation, SC-STS intends to announce in 1H 2021 a timeline to cease the usage of SIBOR in new contracts.

For more information/updates on timelines for SIBOR discontinuation, please visit

https://abs.org.sg/docs/library/key-financial-industry-committees-set-out-timelines-for-sibor-discontinuation.pdf

https://www.abs.org.sg/benchmark-rates/sor-to-sora

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