FAQs

GLOBAL BENCHMARK REFORMS

1.What is IBOR? Why is there a need for IBOR to transition to alternative benchmark rates?

Interbank Offered Rates ("**IBORs**"), in particular, the London Interbank Offered Rates ("**LIBORs**") are financial interest rate benchmarks used in various financial contracts, including but not limited to loan, derivative and bond documentation.

LIBOR is currently set for five currencies (CHF, EUR, GBP, JPY and USD) and seven tenors. It is based on submissions from panel banks, which indicate the rate at which they could borrow from other banks.

The need to transition from IBORs arises from the global reform efforts to improve the robustness and integrity of financial benchmarks. For general background regarding benchmarks transition from LIBOR, please refer to IOSCO's *Statement on Communication and Outreach to Inform Relevant Stakeholders Regarding Benchmarks Transition* dated 31 July 2019:

LIBOR is often calculated by reference to "expert judgement" by panel banks. As part of the global benchmark reforms, the UK Financial Conduct Authority ("**FCA**"), the supervisory authority of LIBOR, has stated that it will no longer compel banks to submit rates used for the calculation of LIBOR after 31 December 2021. This means that LIBOR is expected to be discontinued after end-2021. As a result, the FCA and other regulators are requiring banks to plan for the discontinuation of LIBOR by the end of 2021 and are encouraging market participants to transition to alternative benchmark rates.

2.Which rates are likely to replace LIBOR?

Alternative benchmark rates have been identified by the respective jurisdictions to replace LIBORs and are set out in the table below. These risk free rates ("**RFRs**") are all overnight interest rate benchmarks, and are based on actual transactions which may be secured or unsecured.

	United Kingdom	United States	Euro Area	Switzerland	Japan
Current Benchmark	GBP LIBOR	USD LIBOR	EUR LIBOR	CHF LIBOR	JPY LIBOR
New Benchmark	SONIA	SOFR	ESTER	SARON	TONA
	Sterling Overnight Index Average	Secured Overnight Financing Rate	Euro Short-Term Rate	Swiss Average Rate Overnight	Tokyo Overnight Average Rate
	Based on transactions which are unsecured	Based on transactions which are secured	Based on transactions which are unsecured	Based on transactions which are secured	Based on transactions which are unsecured

3.How does the alternative benchmarks (ie RFRs) differ from LIBOR?

The alternative benchmarks (ie RFRs) differ from LIBOR in the following ways:

(i) RFRs are overnight rates (published retrospectively) while LIBOR is a forward looking term rate (published prospectively).

(ii) Payments referencing RFRs are only known (in arrears) at the end of accrual period while that referencing LIBOR are known (upfront) at the start of accrual period.

(iii) Unlike LIBOR, RFR contains little or no credit risk or term premium.

IMPACT ON SINGAPORE'S SWAP OFFER RATE (SOR)

4.What are the Singapore benchmark rates that will be affected?

As USD LIBOR is expected to be discontinued after 31 December 2021 and given that Singapore's Swap Offer Rate (SOR) utilises the USD LIBOR in its computation, the cessation of USD LIBOR will directly affect the sustainability of SOR.

The Association of Banks in Singapore and Singapore Foreign Exchange Market Committee ("ABS-SFEMC") have identified **Singapore Overnight Rate Average** (SORA) as the most suitable interest rate benchmark to replace SOR. On 30 August 2019, ABS-SFEMC released a consultation report that identified SORA as the alternative interest rate benchmark to SOR and set out a roadmap for this transition. The consultation closed on 31 October 2019, and the response paper to the consultation was released in March 2020. Overall, there was broad support for the proposed transition approach to SORA, with many respondents noting that this was aligned with the global transition from LIBOR to RFR.

SORA has been published by the Monetary Authority of Singapore ("MAS") since 2005 and is a robust benchmark that is underpinned by a deep and liquid overnight interbank funding market.

To ensure a smooth transition from SOR to SORA, MAS has set up an industry-led Steering Committee for SOR Transition to SORA ("SC-STS") comprising senior representatives from key banks, relevant industry associations and MAS. SC-STS will provide strategic direction on industry proposals to develop new products and markets based on SORA, and support this transition process in the coming quarters.

Click here for the list of SC-STS members.

5.What is SORA? Where can I get data on this benchmark?

SORA is published daily by the MAS and is a robust benchmark underpinned by a deep and liquid overnight interbank funding market. It is published on the MAS website daily and has been accessible at no charge since 1 July 2005. The historical series can be downloaded from the MAS website.

6.Why did ABS-SFEMC not replace SOR with SIBOR which will be enhanced soon?

While SIBOR is well understood by the market, ABS-SFEMC assessed that there were significant risks in concentrating all SGD derivatives and cash market products on the SIBOR benchmark.

First, the volume of transactions underpinning SIBOR is significantly smaller than the volume of transactions in the overnight interbank funding markets which underpins SORA.

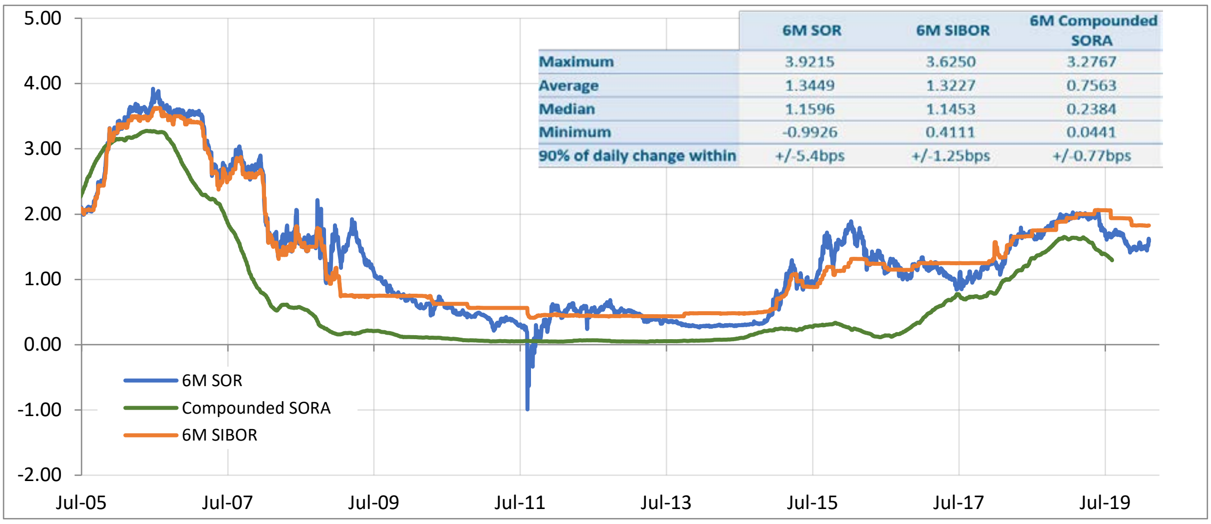
Second, even with the proposed measures to enhance SIBOR by anchoring panel submissions to eligible wholesale funding transactions, the enhanced SIBOR would be vulnerable to a discontinuation of USD LIBOR as it relies on SOR as an input in its waterfall methodology.

Third, given the direction of global benchmark reforms, structural shifts in banks' key sources of funding, and the move to have derivatives markets reference overnight interest rate benchmarks, ABS-SFEMC viewed that adopting SORA as the benchmark for the SGD derivatives market would align the SGD market with international conventions and best practices. This will support the continued participation of global institutions and investors in the SGD market.

7.Is the usage of overnight interest rates common in the financial markets? How does SORA compare to SOR? Is it more volatile?

The use of overnight interest rate benchmarks in financial products is increasing in other major currency areas. These include futures and Overnight Indexed Swaps (OIS) referencing SOFR and SONIA. Market participants that have experience with such products should find the adoption of SORA-based derivatives to be relatively easy.

Globally, the use of overnight interest rate benchmarks (i.e. risk-free rates or RFR) has been gaining traction in many key jurisdictions, including the UK and US. While there were some initial concerns around the volatility of SORA on a daily basis, it was recognised that financial products which reference overnight rates typically use an average rate over a period, and not a single day's rate. For example, a SGD OIS or loan contract could be settled against the 3-month or 6-month compounded average SORA. As seen in the chart below, this compounded average SORA which financial contracts would reference, is more stable than the 6-month SOR, which most SGD derivatives currently reference.



- With the SORA derivatives market moving towards compounded rates (in line with derivatives markets globally), having cash products pegged to compounded rates allows for more effective hedging as the basis risk between cash and derivatives markets is minimised.

IMPACT OF THE BENCHMARK REFORMS

8.Which product types will be affected by the transition?

Any product using LIBOR and SOR as a reference rate will be affected. This could include derivatives, cash market products (e.g. 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 features referencing LIBOR and SOR.

9.How will payments under my products be affected?

If payments under a product is calculated by reference to LIBOR or SOR and if such rate is permanently discontinued, the relevant contract needs to be reviewed to assess if the relevant consequences are specified in the terms of the contract. If not, parties will have to agree to apply a new benchmark or a "fallback" replacement rate in place of LIBOR or SOR upon its discontinuation so that the contract can continue to be effective.

10.Will the value of my products be impacted?

A change in benchmark from LIBOR or SOR to the relevant fallback replacement rate may potentially affect the value of the product (i.e. the mark-to-market value) so that it may be worth more than or less than it would otherwise have been. If the value of a product changes following such transition, this could cause accounting or tax implications for you.

11.Will I be disadvantaged because of the new benchmarks?

We are working to ensure that the transition is of minimal impact to you, financially or otherwise. Depending on the product being affected, the transition approaches may differ according to market developments and industry guidance. We will contact you to assist with the transition in due course.

Depending on how the fallback replacement rate compares to LIBOR or SOR, payments under that contract may be more or may be less than they would otherwise have been.

INVESTMENT PRODUCTS (E.G. BONDS AND STRUCTURED NOTES)

12.I hold investment products which reference LIBOR/ SOR. What action is required?

There is no immediate action required from you. We will be notifying you in due course of the actions that you may be required to take as part of the transition. Please also look out for relevant notices from issuers.

LOANS AND DERIVATIVES

13.I currently have a property loan referencing SOR. How does the discontinuation of SOR affect my property loan? Do I have to take any action now?

If you have a property loan that references SOR, we will contact you at the appropriate time, giving you enough notice to consider switching to other loan packages which do not reference SOR, and guide you through the transition. There is no immediate action required from you.

14.When the transition happens, will I be subject to re-computation of the Total Debt Servicing Ratio (TDSR) to switch my property loan referencing SOR to another loan package?

As the offering of replacement property loan packages is an industry wide exercise driven by the discontinuation of SOR, MAS will not require financial institutions to re-compute the TDSR for affected customers who switch to replacement loan packages.

Please note that under other refinancing scenarios (for example, should you initiate a refinancing with another financial institution), you may be subject to TDSR computation under the prevailing refinancing rules.

15.Can I choose not to replace my property loan referencing SOR?

SOR utilises USD LIBOR in its computation. As USD LIBOR is expected to be discontinued after the end of 2021, the discontinuation of USD LIBOR will directly affect the sustainability of SOR. As such, there will be a need to replace your property loan referencing SOR before the end of 2021.

16.Would my other loans be affected by this transition?

If you have other loans referencing SOR, the loans will similarly be affected by this transition. There is no immediate action required from you unless you wish to reprice or restructure these loans before the industry wide exercise where your bank will contact you to transition to other loan packages which do not reference SOR.

17.What is the possibility of using SIBOR (or enhanced SIBOR) as a replacement rate for loans referencing SOR?

ABS Benchmarks Administration Pte Ltd (ABS Co) is conducting transitional testing for the enhanced SIBOR, and will provide an update after transitional testing is completed in 2H 2020. The results of the transitional testing will be considered by the Steering Committee for SOR Transition to SORA (SC-STS), which will issue industry guidance in due course.

EXISTING / LEGACY LOANS

18. I have an existing loan that references LIBOR/ SOR and matures after end 2021. What should I do about this?

There is no immediate impact on your loan at this juncture, and we will be reaching out to you in due course to assist with the transition. However, to prepare for the upcoming transition, you are encouraged to review the terms and conditions of your loan contract to understand the implications and the actions required.

19. 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, we will no longer be able to calculate your interest payment using LIBOR/ SOR. Instead, your loan interest payment will be calculated using a 'fallback' rate which we will notify you. 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 in relation to the discontinuation of LIBOR/ SOR.

20. How will the change in benchmark affect my loan repayment?

The transition from LIBOR/SOR to another benchmark could lead to some changes to your loan repayment, depending on market conditions at that point in time. We will reach out to you in due course to discuss options that are available to you as a borrower.

21. If I have more than one loan pegged to LIBOR/ SOR, will I have to re-sign every loan?

Yes, all LIBOR/ SOR-pegged loans will be affected once LIBOR/SOR is discontinued. We will assist you to take the necessary actions in due course.

22. What if I had hedged my LIBOR/ SOR loan with a swap?

If you had hedged your LIBOR or SOR loan with a swap, your swap would also have been likely pegged to LIBOR or SOR, respectively. You should review the terms of your swap contract as early as possible to understand the consequential implications once LIBOR/SOR is discontinued. Notably, if the terms of your swap contract provide for a 'fallback' rate, there is a possibility of a hedging mismatch if the 'fallback' rate of your loan differs or kicks in at a different time. We will reach out to you in due course to discuss options.

In relation to the transition from SOR, an alternative would be to transition both your loan and swap to reference Adjusted SOR or other alternative rates, which will allow for hedge effectiveness to be maintained, SC-STS plans to provide market guidance on how users may undertake this process, and the Committee will provide further information on this matter in due course.

In other markets such as the US, borrowers, whose loans are pegged to LIBOR, have similarly been encouraged to transition both their loans and swaps to reference SOFR or other alternative rates in order for hedge effectiveness to be maintained.

23. What are the tax and accounting-related implications of the change in benchmark?

For the transitioning from SOR to SORA, Sub-group 7 of the SC-STS was formed to provide guidance on accounting and tax-related issues, including hedge accounting, and will be publishing guidance in due course.

For other markets such the US market, relevant bodies such as the ARRC, the Financial Accounting Standards Board and the US Internal Revenue Service have provided/may provide guidance from time to time on such issues pertaining to the transition from LIBOR to SOFR.

NEW LOANS

24. What if I had hedged my LIBOR/ SOR loan with a swap?

If you had hedged your LIBOR or SOR loan with a swap, your swap would also have been likely pegged to LIBOR or SOR, respectively. You should review the terms of your swap contract as early as possible to understand the consequential implications once LIBOR/SOR is discontinued. Notably, if the terms of your swap contract provide for a 'fallback' rate, there is a possibility of a hedging mismatch if the 'fallback' rate of your loan differs or kicks in at a different time. We will reach out to you in due course to discuss options.

In relation to the transition from SOR, an alternative would be to transition both your loan and swap to reference Adjusted SOR or other alternative rates, which will allow for hedge effectiveness to be maintained., SC-STS plans to provide market guidance on how users may undertake this process, and the Committee will provide further information on this matter in due course.

In other markets such as the US, borrowers, whose loans are pegged to LIBOR, have similarly been encouraged to transition both their loans and swaps to reference Secured Overnight Financing Rate ("SOFR") or other alternative rates in order for hedge effectiveness to be maintained.

25. I am looking to take up a new loan. Should I avoid entering into any new contracts that still reference LIBOR/ SOR?

If you wish to take up a new loan that references LIBOR/ SOR, you should review the proposed new loan contract for terms that set out, or permit a switch or fallback to an alternative rate from LIBOR/ SOR.

26. Who should I contact if I am keen to take up a new loan pegged to SORA?

You can contact your relationship manager if you are keen to take up a new loan pegged to SORA.

27. How will SORA be used to compute interest payments for borrowers?

There are a few ways SORA could be used to calculate interest payments for loans.

In other markets such as the US and the UK, banks have made loans based on a compounded or simple average of the alternative overnight interest rate benchmark. The SC-STS is studying various approaches and will provide an update in due course.

28. In respect of SOR loans, should borrowers wait for a term SORA rate to be developed?

In Singapore, term SORA can only be developed if there is deep and liquid trading of SORA derivatives, e.g. SORA Overnight Indexed Swaps (OIS) transactions. Specifically, this would require frequent and sizeable daily transactions in the specific benchmark tenors of interest (e.g. 1-month OIS). The experience in other jurisdictions globally shows that it would take time for this to be achieved. Some other jurisdictions have concluded that it would not be possible for such term benchmarks to be constructed.

The SC-STS will continue to monitor the development of the SORA derivatives market and will explore the feasibility of developing such benchmarks when the market is sufficiently developed. As there is no way to guarantee the development of such term SORA benchmarks before end 2021 , borrowers should not delay their transition plans in anticipation of this rate, and should instead prepare to transact in products that reference compounded SORA or other alternative rates offered by the Bank.

DERIVATIVES

29. What is the industry solution to address cessation of benchmarks in swap and derivatives documentation?

ISDA, which is the global leading industry body for swaps and derivatives, is in the process of updating and amending the 2006 ISDA Definitions to include new fallback provisions to apply in the event of cessation of certain benchmarks, including benchmarks such as LIBOR and SOR.

The proposed fallback provisions shall state that upon the occurrence of the specified event (i.e. the cessation of the relevant benchmark), references to the affected benchmark will be replaced with references to an identified replacement rate in the same currency. The fallback provisions are still in consultation and drafting phase.

30. What is the market's transition plan for existing and new swap and derivatives contracts referencing benchmarks such as LIBOR and SOR, which shall permanently cease in end 2021?

Once details on the fallback rates and calculation methodology are finalised, ISDA will publish one or more supplements to the 2006 ISDA Definitions (Revised 2006 ISDA Definitions).

New swap and derivatives contracts entered into on or after the effective date of the Revised 2006 ISDA Definitions shall be deemed to have applied the fallback rates by incorporating by reference the Revised 2006 ISDA Definitions into the swap and derivatives contracts.

ISDA has also published a related protocol (ISDA Protocol) that market participants can adhere to amend legacy swap and derivatives transactions entered into prior to the effective date of the Revised 2006 ISDA Definitions.

31. How will my outstanding swap or derivatives contracts be affected by the transition?

If you have outstanding swap and/or derivatives contracts referencing LIBOR and/or SOR that mature beyond end 2021, we will reach out to you in due course to discuss the transition to replace or amend such contracts referencing LIBOR and/or SOR to reference the fallback replacement rates set out in the Revised 2006 ISDA Definitions before end-2021.

32. What is the possible fallback for swap and derivatives transactions that currently reference SOR?

Based on the ISDA's consultation results and the recommendation of the SC-STS, 'Adjusted SOR' has been identified as the contractual fallback for legacy SOR swap and derivatives.

'Adjusted SOR' follows the same calculation formula as SOR except that the USD LIBOR in the calculation is replaced by the fallback rate for USD LIBOR, which is the daily compounded Secured Overnight Financing Rate (Adjusted SOFR) plus a spread adjustment.

The spread in relation to Adjusted SOFR will be calculated, and published, by Bloomberg based on a methodology that was selected after a series of public consultations by ISDA. There is no further spread adjustment to be calculated in relation to Adjusted SOR.

Unlike SOR, 'Adjusted SOR' will be a backward-looking rate like Adjusted SOFR, and the rate will be known and published at the end of the calculation period.

33. What is SOFR?

SOFR is the secured overnight financing rate administered, and published, by the Federal Reserve Bank of New York and it is the recommended alternative to USD LIBOR selected by the Alternative Reference

Rate Committee (ARRC). ARRC is a group of private market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York.

34. How long will Adjusted SOR be in effect?

Adjusted SOR, like the SOR, will be administered by the Association of Banks in Singapore Benchmarks Administration Co., and is intended as an interim measure to buy time for users to transition their affected swap and derivatives contracts to reference SORA. It is not intended as a reference benchmark for the SGD swap and derivatives market, which should transition to reference SORA. As such, Adjusted SOR will eventually be discontinued. The SC-STS is reviewing this issue of how long Adjusted SOR is needed to fulfil its function as an interim measure, and will provide further information on this matter in due course.

35. Is there legal documentation setting out the new fallback to Adjusted SOR?
As mentioned above, ISDA will be amending the 2006 ISDA Definitions (Revised 2006 ISDA Definitions) to incorporate the fallback trigger and fallback rates for LIBOR and other major IBORs, including the fallback to Adjusted SOR for SOR swap and derivatives. By incorporating the Revised 2006 ISDA Definitions for new swap and derivatives entered into on or after the effective date, market participants can adopt the new fallbacks.

36. How will the market transit from SOR to SORA for derivatives trading?
The transition from SOR to SORA will be a phased approach. SC-STS plans to develop active trading of SORA derivatives from the second quarter of 2020, and trading of SORA derivatives has already commenced in the inter-bank markets. Market participants should consider referencing SORA instead of SOR in new contracts. As SORA derivatives increase in usage, they will become an alternative to SOR-based derivatives, and will eventually replace SOR as the benchmark for SGD derivatives. To facilitate wider use of SORA derivatives, the SC-STS has developed and published confirmation templates for standard SORA OIS, SOR-SORA basis swaps, and SGD SORA USD SOFR cross currency swaps.

37. Can I still keep using SOR after 31 December 2021?
No. The UK Financial Conduct Authority (FCA), the supervisory authority of LIBOR, has stated that it will no longer compel banks to submit rates used for the calculation of LIBOR after 31 December 2021. This means that LIBOR is expected to be discontinued after end 2021. As SOR utilises the USD LIBOR in its computation, the cessation of LIBOR will directly affect the sustainability of SOR. You should transition towards SORA swap and derivatives well in advance by end 2021.

38. Are all swap and derivatives transactions impacted by this change?
All interest rate swap and derivatives products, including, but not limited to, cross currency swaps, swaptions and all structured products referencing discontinuing benchmarks such as LIBOR and SOR will be impacted.

39. Have SORA derivatives trades been executed in the market?
The first SORA OIS trades were transacted in the interbank market between November and December 2019. SORA cross currency swaps and SOR-SORA basis swaps have also been transacted since then. The industry is working towards making prices for SORA derivatives more widely available on market data platforms by 2H 2020.

About London Interbank Offered Rate (LIBOR): It is the expectation that the publication of LIBOR will be discontinued after the end of 2021. LIBOR is currently set for five currencies (CHF, EUR, GBP, JPY and USD) and seven tenors based on submissions from panel banks. If cessation of LIBOR occurs during the term of this financial instrument, the contractual terms would provide a process for determining a fallback but it is unclear and uncertain what rate this instrument would reference as a result of that process. Due to this lack of clarity and certainty, there is no way to know at this time whether you would be disadvantaged economically. Timing for any cessation of LIBOR may vary across different currencies and tenors in which LIBOR is currently set for and such timing may differ from the timing for any cessation of other interbank offered rates ("IBORs"). In addition, the cessation of LIBOR may result in a mismatch between the rate referenced in this financial instrument and your other financial instruments, including potentially those that are intended as hedges.

Impact on Singapore Dollar Swap Offer Rate (SOR): As USD LIBOR is expected to be discontinued after 31 December 2021 and given that SOR utilises the USD LIBOR in its computation, the cessation of USD LIBOR will directly affect the sustainability of SOR. The Association of Banks in Singapore and Singapore Foreign Exchange Market Committee ("ABS-SFEMC") have identified the Singapore Overnight Rate Average ("SORA") as the most suitable interest rate benchmark to replace SOR.

SORA has been published by the Monetary Authority of Singapore ("MAS") since 2005, and is a robust benchmark that is underpinned by a deep and liquid overnight interbank funding market.

To ensure a smooth transition from SOR to SORA, MAS has set up an industry-led Steering Committee for SOR Transition to SORA ("SC-STS") comprising senior representatives from key banks, relevant industry associations and MAS. SC-STS will provide strategic direction on industry proposals to develop new products and markets based on SORA, and support this transition process in the coming quarters.

For more information on the transition from SOR to SORA, please visit the website of the Association of Banks in Singapore (ABS): https://abs.org.sg/benchmark-rates/sor-to-sora