BEA 東亞銀行

# Interest Rate Benchmarks Reform

## Background

Interbank Offered Rates (IBORs), including the London Interbank Offered Rate (LIBOR), the Euro Interbank Offered Rate (EURIBOR), the Hong Kong Interbank Offered Rate (HIBOR) and the Singapore Interbank Offered Rate (SIBOR), are widely accepted interest rate benchmarks. IBORs have been commonly adopted in financial markets to calculate interest rates or other payments in a broad range of financial products, such as loans, bonds and derivatives, and are frequently used as the basis for valuations by market participants.

The G20 instructed the Financial Stability Board (FSB) in 2013 to undertake a review of the major interest rate benchmarks and plans for reform in order to ensure that the interest rate benchmarks are robust and used appropriately. In 2014, the FSB published a report recommending:

- strengthening IBORs, where possible; and
- identifying alternative near-risk-free rates (RFRs) for use as alternative reference rates, and where suitable, to encourage market participants to transition to new, appropriate RFR contracts.

## Why are IBORs being reformed?

IBORs are generally calculated from the estimates submitted by a selection of banks in relevant financial markets, and are meant to reflect the price of interbank funding markets. In some financial markets, banks no longer fund themselves in the interbank market to the same extent as they used to. This has led to declining transaction volume in the markets that underpin certain IBORs, creating growing concern about them no longer being representative.

Amongst all current IBORs, LIBOR has been the most widely used interest rate benchmark in financial products for decades. In 2017, the Financial Conduct Authority (FCA), the UK authority that regulates LIBOR, stated that after 31st December 2021, it will no longer compel banks to continue making LIBOR submissions. Consequently, the number of LIBOR submissions by banks could fall significantly, reducing the representativeness of LIBOR. More importantly, there is an appreciable risk that LIBOR may cease to be published after 2021. This has had the effect of creating a clear deadline for market participants to end their reliance on LIBOR.

Global authorities consider that it is necessary to transition away from LIBOR and certain other IBORs are also undergoing reforms. This is commonly known as IBOR transition. Market participants are expected to implement proper process in managing the transition, as not doing so could result in significant market disruption.

## What will be the Alternative Reference Rates (ARRs) replacing IBORs?

LIBOR covers financial products denominated in five currencies: United States Dollar (USD), Euro (EUR), British Pound (GBP), Japanese Yen (JPY), and Swiss Franc (CHF). Transition away from LIBOR requires its replacement by new ARRs for each relevant currency.

For certain other IBORs, in response to regulators' expectation, near RFRs are also being developed in the relevant markets for use as ARRs in relation to those IBORs.

A key objective of the transition is the creation of an interest rate market based on actual transactions leading to a more transparent, reliable and representative interest rate market. Market consensus is that RFRs (which are principally overnight interest rates based on actual transactions) would be used as ARRs for IBORs.

Various working industry groups comprising public and private sector representatives across jurisdictions were established in order to identify appropriate RFRs as ARRs for different markets. These working groups have now identified the ARRs.

A summary of certain major ARRs identified by these working groups and the anticipated approach for transition is set out in the table below.

| Currency | IBOR | ARR | Working Group | Anticipated Approach |
|---|---|---|---|---|
| US Dollar | LIBOR | Secured Overnight Financing Rate (SOFR) | Alternative Reference Rates Committee | Transition is necessary. |
| Pound Sterling | LIBOR | Sterling Overnight Index (SONIA) | Working Group on Sterling Risk-Free Reference Rates | Transition is necessary. |

| Currency | IBOR | ARR | Working Group | Anticipated Approach |
|---|---|---|---|---|
| Euro | EURIBOR | Euro Short Term Rate (€STR) | Working Group on Euro Risk-Free Rates | EURIBOR has been reformed, which allows its continued use.<br><br>Multiple-rate approach - the reformed EURIBOR continues alongside €STR |
| Euro | LIBOR | Euro Short Term Rate (€STR) | Working Group on Euro Risk-Free Rates | Transition is necessary. |
| Japanese Yen | LIBOR | Tokyo Overnight Average Rate (TONA) | Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks | Transition is necessary |
| Swiss Franc | LIBOR | Swiss Average Rate Overnight (SARON) | National Working Group on Swiss Franc Reference Rates | Transition is necessary. |
| Hong Kong Dollars | HIBOR | Hong Kong Dollar Overnight Index Average (HONIA) | Treasury Markets Association | Multiple-rate approach - HIBOR continues alongside HONIA |

**IBORs and ARRs: What are the differences?**

There are a number of fundamental differences between IBORs and ARRs. It is important to consider these differences carefully in order to understand the implications brought about by the transition to ARRs. Some of the key differences are highlighted in the table below.

| IBORs | ARRs |
|---|---|
| Based largely upon expert judgement by banks making relevant IBOR submissions | Based mainly upon transaction data in active markets |
| Forward-looking rates | Backward-looking rates calculated using historic transaction data |
| Available in multiple tenors | Currently overnight rate only, but term rates for some ARRs are in development |
| Incorporate a bank credit risk premium | Do not incorporate a bank credit risk premium |
| A liquidity premium is applied to longer term rates | No liquidity premium is applied |

ARRs are overnight interest rates based on a backward-looking calculation methodology, with reference to actual transactions. They have little or no credit risk and are without liquidity premium due to their overnight nature.

On the other hand, IBORs are forward-looking term interest rates for unsecured interbank loans with a number of different tenors (which, for instance, could be up to 12 months in the case of LIBOR), with an embedded credit spread. Longer term IBORs may incorporate higher liquidity premium.

**How do the benchmark rate differences impact customers?**

*Forward looking v. backward looking:*

- As an IBOR has forward-looking term structure, in a usual loan contract referencing an IBOR with interest payable in arrears, each interest payment amount can be fixed and known at the beginning of the corresponding interest calculation period. Borrowers may find it useful for cash-flow forecasting.
- However, for a typical loan referencing an ARR with interest payable in arrears, as the ARR is backward–looking and based on actual transaction data, the interest rate for the corresponding interest period would be based on the compounded ARR accruing in arrears during the interest period. In such case, the interest rate and interest amount to be paid may only be known near the end of the interest period.

*Transition from existing rate (IBOR) to a new rate (ARRs):*

- In economic terms, IBORs (which incorporate credit risk premiums) are usually higher than corresponding ARRs, which are near RFRs.
- Using ARRs (which are overnight rates) for interest calculation for a term (say, 3 months) requires appropriate rate conversion methodology to achieve proper calculation for the term interest period. Such methodology is still being developed and there cannot be assurance that such methodology will be fully developed by the time the relevant IBORs must be replaced.
- When parties replace a reference to an IBOR with the relevant ARR in an existing contract, the bank credit risk premium element of the rate is removed. In order to preserve the economic equivalence for the new contract, a spread adjustment may need to be added to an ARR for proper transition.

- Conversion of an overnight rate to be applied to a term interest period may also require changing to the existing contract term.
- Standard-setting bodies and industry organisations are making progress on formulating the relevant calculation methodology and the credit spread adjustment. We are closely monitoring the developments and assessing the necessary changes to the existing contracts.

**What potential risks should customers be aware of?**

Some interest rate benchmarks are being reformed or may be discontinued. In particular, there is uncertainty as to whether LIBOR (the most commonly used IBOR in financial markets) will continue to be published after 2021. Upon cessation of LIBOR publication, it may not be a referenceable benchmark rate for existing transactions.

Some IBORs other than LIBOR are also undergoing reforms due to applicable regulatory requirements and industry practice. It is not yet certain how and to what extent their reformed calculation methodology would differ from their existing forms.

Accordingly, if customers have any existing contracts referencing IBORs or enter into any new contracts referencing IBORs, they should be aware of the following:

- LIBOR may disappear and there is a need to determine or agree to an alternative reference rate (and ARRs identified by the relevant industry bodies behave differently from LIBOR in many respects);
- Some IBORs subject to reform may result in different calculation methodology and may perform differently than in the past;
- The conversion from IBORs to ARRs for term financings is dependent upon the development of futures trading and other methods that are still being developed and might not be fully developed when the conversion needs to occur;
- Financial contracts referencing IBORs (in particular those linked to LIBOR) may require adjustment to incorporate necessary fallback provisions (i.e. contractual provisions for alternative reference rates as replacement rates for IBORs), to substitute the alternative reference rates for the IBORs and to include any other appropriate amendments such as addition of applicable spread adjustment;
- The occurrence of any of the above may: (1) materially impact the economic value of the relevant financial transactions, and (2) result in a mismatch between the rate referenced in the relevant financial instrument and the customers' other financial instruments, including potentially those that are intended as hedges, and may have other unforeseen or adverse consequences.

The above list only highlights some of the matters pertaining to the IBOR transition and should not be treated as an exhaustive list of all the relevant risks.

The IBOR transition will impact certain BEA products and services that BEA customers now hold or use and those that may be provided in the future. The extent of the impact will depend on a range of factors, which include the particular IBOR adopted in the products or services, evolving market and industry developments, changes to valuations, legal documentation and the terms and conditions of the products or services. We are closely monitoring the developments. We may provide more information on the changes when there is greater certainty on the agreed new benchmarks, their methodology and the transition process.

It is advisable for customers to conduct their own independent assessment and analysis of the potential consequences of any relevant risks, including the potential market, financial, legal, accounting, tax and regulatory impact on their financial contracts and transactions.

**What is BEA's approach to IBOR transition?**

BEA has started and will continue to evaluate and address the risks associated with the transition, with specific considerations for product and client exposures.

BEA greatly values its customers and will proactively engage, communicate with, and educate impacted customers. Achieving smooth and orderly transition in partnership with customers is BEA's priority.

To align its approach with industry practice and the regulatory expectation, BEA has closely monitored the developments of the interest rate benchmarks reform both in Singapore and internationally, and has updated and implemented its transition programme and action plans as appropriate.

**What can customers do to prepare for the IBOR transition?**

Customers are encouraged to stay up-to-update on the latest developments of the transition. It is important that you are aware of what the changes from IBORs to ARRs might mean to you, including any financial, accounting, legal and taxation impact. The initial steps that customers may wish to take to prepare for the transition include:

- Understanding your exposures to IBORs by review of your existing documentation;
- For LIBOR-referenced contracts in particular, assessing how existing transactions may behave if reliance on LIBOR is phased out or LIBOR publication ceases;
- Evaluating the impacts on you due to the differences between current IBOR references and the potential ARRs which may be incorporated in contractual documentation in the future;
- Considering what other impacts the IBOR transition may have on you or your business;
- Engaging professional advisors (financial, accounting, tax, legal or other) as you consider appropriate to help you on the assessment of the impact due to the transition.

The above is not an exhaustive list and is only intended to outline some of the initial steps you may consider.

**More information**

BEA may periodically update this page as appropriate to reflect market developments. For further information on specific BEA products and services you currently have, please get in touch with your usual BEA contact.

For general information on IBOR-related market developments, a non-exhaustive list of websites of external industry bodies or organisation sources is included below:

Financial Stability Board (https://www.fsb.org/)

USD LIBOR – The Alternative Reference Rates Committee (https://www.newyorkfed.org/arrc)

GBP LIBOR – The Working Group on Sterling Risk-Free Reference Rates
(https://www.bankofengland.co.uk/markets/transition-to-sterling-risk-free-rates-from-libor)

EURIBOR - The Working group on euro risk-free rates
(https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates/html/index.en.html)

HKD HIBOR – Treasury Markets Association (https://www.tma.org.hk)

JPY LIBOR - Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks
(https://www.boj.or.jp/en/paym/market/jpy_cmte/index.htm/)

CHF LIBOR - National Working Group on Swiss Franc Reference Rates
(https://www.snb.ch/en/ifor/finmkt/fnmkt_benchm/id/finmkt_reformrates)

SGD SOR – The Association of Banks in Singapore (“ABS”)
(https://www.abs.org.sg/)

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**Frequently Asked Questions**

**Q1: What is LIBOR? Will LIBOR cease to be available at some point in the future?**

London Interbank Offered Rate (LIBOR) is the benchmark interest rate calculated based on the submissions by a panel of banks in London for five currencies (GBP, USD, EUR CHF and JPY), intended to represent an estimate of how much it would cost a bank to borrow money from other banks in the London interbank market.

However, there is an appreciable risk that LIBOR may cease to be published after 2021 due to the lack of bank submissions, as the panel banks would be no longer compelled to continue making submissions after 2021.

Even if some panel banks may continue to submit their rates for LIBOR calculation after 2021, it remains possible that the LIBOR rate would no longer be a robust and representative benchmark. Regulators expect that market participants will end their reliance on LIBOR by the end of 2021. In response to this, various working industry groups comprising public and private sector representatives across jurisdictions have been established in order to identify appropriate alternative reference rates for different markets.

**Q2: I have a USD term loan with maturity date beyond 2021 using LIBOR as the interest rate benchmark. Will said term loan be impacted by IBOR transition?**

Yes. Since USD LIBOR might not exist beyond 2021, this will need to be replaced by its alternative reference rate - Secured Overnight Financing Rate (SOFR) - which will be used for loans which mature after 2021. The relevant term loan contract referencing LIBOR with us might need to be amended at some stage in the future. If this is the case, we will let you know.

**Q3: I have an interest rate swap with your Bank referencing USD LIBOR, which is expected to last beyond 2021. Will said interest rate swap be impacted by IBOR transition?**

Yes. Since USD LIBOR might not exist beyond 2021, this will need to be replaced by its alternative reference rate - Secured Overnight Financing Rate (SOFR). The relevant interest rate swap contract referencing USD LIBOR with us might need to be amended at some stage in the future. If this is the case, we will let you know.

**Q4: What is SOFR? Where can I get data on this benchmark?**

The Secured Overnight Financing Rate (SOFR). This is a secured treasury repo rate. The Alternative Reference Rates Committee, which is the US working group leading the transition away from LIBOR, has selected SOFR as the recommended alternative reference rate for the US. SOFR is calculated based on actual repo transaction data.

SOFR was first published in April 2018 and is published each business day on the New York Fed's website.

**Q5: What is SOR? Is SOR expected to continue in the near future? Will SIBOR be affected by the IBOR Transition?**

Singapore has two sets of benchmark money market rates - Singapore Swap Offer Rate (SOR) and Singapore Interbank Offered Rate (SIBOR). Both rates are published by the ABS Benchmarks Administration Co Pte Ltd (ABS Co), a fully owned subsidiary of the Association of Banks in Singapore (ABS).

SOR is a synthetic rate for deposits in Singapore Dollars (SGD), which represents the effective cost of borrowing the SGD synthetically by borrowing USD for the same maturity, and swap out the USD in return for the SGD.

It is an alternative to SIBOR which is a measure of the cost of borrowing SGD in the interbank market, and is a polled rate by 20 contributor banks that contribute the rate at which it could borrow funds were it to do so by asking for and accepting the interbank offers in reasonable market size, just prior to 11 am Singapore time each business day. SIBOR is not directly affected by the LIBOR's transition to SOFR because it is a polled rate based on the cost of domestic SGD interbank lending. On the contrary, the transition from LIBOR to SOFR will have a direct impact on SOR since LIBOR rates are used as an input into deriving SORs. Nonetheless, Singapore authorities have since 2013 started the process of enhancing SIBOR.

The ABS and the Singapore Foreign Exchange Market Committee (SFEMC) have identified the Singapore Overnight Rate Average (SORA) as the alternative interest rate benchmark for SOR and have set out a roadmap for this transition.

SORA, which has been published by the MAS since 2005, is an interest rate benchmark based on the volume weighted average rate of unsecured overnight interbank SGD transactions brokered in Singapore. Administered by MAS, SORA is underpinned by a deep and liquid overnight funding market, and is commonly monitored by money market participants as a reflection of daily conditions in SGD money markets.

This shift is necessary given the expected discontinuation of USD LIBOR, following the announcement by the UK regulatory authorities that the benchmark will not be sustained by regulatory powers after end-2021. SOR relies on USD LIBOR in its computation methodology and the likely discontinuation of LIBOR after end-2021 directly impacts the future sustainability of SOR.

The industry-wide interest rate benchmark transition from SOR to SORA is overseen by the Steering Committee for SOR Transition to SORA (SC-STS), a group of industry participants convened by MAS.

**Q6: I have a Singapore Dollar facility with BEA using SOR as an interest rate benchmark. Would IBOR transition materially affect the contractual terms of such SGD facility contract?**

Yes. Since SOR may not be relied upon beyond end 2021, this will need to be replaced by its alternative reference rate - SORA. Your relevant facility contract and/or interest rate swap contract referencing SOR with us might need to be amended at some stage in the future. If this is the case, we will let you know.

**Q7: What is HIBOR? Is HIBOR expected to continue in the near future?**

Hong Kong Interbank Offered Rate (HIBOR). This is an interest rate benchmark for Hong Kong Dollars (HKD) and Chinese Renminbi in Hong Kong (CNH), calculated based on submissions by a panel of banks in Hong Kong, intended to represent an estimate of how much it would cost a bank to borrow money from other banks in the Hong Kong interbank market.

There is currently no plan to discontinue HIBOR according to the Treasury Markets Association. HIBOR has been in place for decades and is still well recognised by market participants as a representative and robust interest rate benchmark. Whilst Hong Kong Dollar Overnight Index Average (HONIA) has been identified as the alternative reference rate to HKD HIBOR, it is expected that HKD HIBOR and HONIA will co-exist in the market. Market participants may continue to use HKD HIBOR as an interest rate benchmark for their Hong Kong Dollar financial products.

For financial contracts referencing CNH HIBOR, as HIBOR is expected to continue in the foreseeable future, we do not anticipate that the current IBOR transition would result in the change in the interest benchmark rates in those financial contracts.

**Q8: I have a Hong Kong Dollar facility (for example, a personal loan or mortgage loan) with BEA using HIBOR as an interest rate benchmark. Would IBOR transition materially affect the contractual terms of such HKD facility contract?**

Currently, as HIBOR is expected to continue, we do not anticipate that the IBOR transition will result in the replacement of HIBOR by an alternative reference rate in existing Hong Kong Dollar facility contracts with us in the near future. As the IBOR transition is still ongoing, if there are any new developments in the IBOR transition which would result in any change to your HKD facility contract with us, we will let you know.

**Q9: What is EURIBOR? Will EURIBOR continue to be available in the near future?**

The Euro Interbank Offered Rate (EURIBOR). EURIBOR is a daily reference rate published by the European Money Market Institute, representing the rate at which credit institutions in the European Union (EU) can borrow wholesale funds in Euros in the unsecured money markets.

EURIBOR has been reformed for compliance with EU Benchmark Regulation. EURIBOR is not expected to discontinue in the foreseeable future.

**Q10: I have Euro financial products with BEA referencing EURIBOR. Will the IBOR transition materially affect the contractual terms of the EURIBOR products?**

Currently, as EURIBOR is expected to continue, we do not anticipate that the IBOR transition will result in the replacement of EURIBOR by an alternative reference rate in the existing Euro financial products contracts with us in the near future. As the IBOR transition is still ongoing, if there are any new developments which would result in any change to your Euro financial product contract with us, we will let you know.

**Q11: Where can I find more information on the IBOR transition?**

If you wish to discuss the IBOR transition's impact on the products you currently have with BEA, please get in touch with your usual BEA contact.

For general market information on IBOR transition, you may refer to the information available from external industry bodies or organisation sources indicated in the "More Information" section on this webpage.

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