IBOR Transition Frequently Asked Questions

December 2021

Contents

1. Background

i. What is LIBOR?

London Interbank Offer Rate (LIBOR) is an un-secured short-term borrowing rate determined by selected AA rated banks published for 5 currencies; British pound (GBP), Euro (EUR), US dollar (USD), Swiss franc (CHF) and Japanese yen (JPY) for 7 different maturities, namely, overnight, 1 week, 1 month, 2 months, 3 months, 6 months and 12 months. It is determined by selected AA rated banks. It is published each London business day.

ICE Benchmark Administration (IBA) administers the publication of LIBOR and summary of the methodology followed by IBA for publication of LIBOR is provided below.

Level 1: Transaction based LIBOR Rate - Here banks have sufficient eligible transactions (eligibility criteria for transactions are specified by IBA). LIBOR is calculated as a volume weighted average price ("VWAP") of such eligible transactions. A higher weighting is assigned to transactions booked closer to 11:00 AM London time.

Level 2: Transaction Derived LIBOR Rate - Here banks make a submission based on transaction-derived data since they have insufficient eligible transactions to make a Level 1 submission. Rates shall consider time-weighted historical eligible transactions adjusted for market movements and linear interpolation. Eligibility criteria for transaction derived data are specified by IBA.

Level 3: Expert Judgement LIBOR Rate - Here banks have insufficient eligible transactions or transaction-derived data to make a Level 1 or a Level 2 submission, it will submit the rate at which it could fund itself at 11:00 AM London time with reference to the unsecured, wholesale funding market. Each Contributor Bank agrees its defined Level 3 submission methodology with IBA, basing its rate on transactional data, related market instruments, broker quotes and other market observations. Level 1 and Level 2 submissions are mathematically based on transaction data and the methodology is common to all contributing banks. There is no discretion for contributors.

Detailed methodology description can be found in [1].

ii. Why is LIBOR being discontinued and replaced by RFRs?

LIBOR moved closely in line with other short-term interest rates such as Treasury yields and the Overnight Index Swap (OIS) rates prior to mid-2007 crisis. However, it began to display volatility from August 2007. Furthermore, during and after the financial crisis of 2007-08, the interbank borrowing/lending market based on LIBOR became illiquid and therefore panel banks had to increasingly rely on expert judgement to quote LIBOR rates.

Several investigations were conducted in 2012. Multiple banks were associated with manipulation of LIBOR to realize gains on LIBOR-based contracts. Banks purposefully underreported their costs of borrowing by significant amounts in order to project financial strength amidst market uncertainty. Financial regulatory bodies across the world including the International Organization of Securities Commissions (IOSCO) and Bank of International Settlements (BIS) initiated a reference rates reform in the wake of the LIBOR scandal. Key reforms include Wheatley review of LIBOR 2012, G20 asking FSB to reform major interest rate benchmarks, establishment of Official Sector Steering Group, establishment of IBOR Market Participants Group, Convention of working groups to propose alternative reference rates, etc[1]. Hence, to avoid such events in the future, LIBOR is being replaced by alternate risk-free rates that are backed by actual transactions and that do not pose any manipulation risk.

iii. What announcement was made by FCA regarding the cessation of LIBOR?

On 5th March 2021, the FCA formally announced that the following LIBOR benchmark rates will either cease to be provided or will no longer be representative immediately after the following cessation dates [2]:

- 31st December 2021: All LIBOR benchmark rates in respect of Sterling, Euro, Swiss Franc and Japanese yen as well as the US Dollar (only 1-week and 2-month) LIBOR benchmark rates

[1] (a) September 2012 – Final report of the Wheatly Review of LIBOR, (b) February 2014 – ICE Benchmark Administration (IBA) took over administration of LIBOR from the British Banking Association (BBA), (c) July 2017 - Andrew Bailey announced that by the end of 2021, the FCA would no longer seek to compel or persuade panel banks to submit quotes for LIBOR, making clear that reliance on LIBOR could no longer be assured beyond this date

- 30th June 2023: Overnight, 1-month, 3-month, 6-month, 12-month USD LIBOR benchmark rates

iv. How shall existing and new LIBOR referencing contracts work?

Existing contracts:

- **Maturing before 2021:** No action is needed for contracts maturing before the cessation date of the referenced LIBOR benchmark rate.
- **Maturing after 2021:** The reference rates in the contracts need to be amended from current LIBOR to risk-free rates / alternate reference rates. Moreover, regulators/working groups have issued guidance with regards to ceasing the issuance of new LIBOR products (see [3], [4], [5], [6], [7], [8] for more details).

New contracts: New contracts should be based on RFRs

v. What is synthetic LIBOR & the corresponding FCA announcement in relation to the same?

The FCA published a press release on 29th September 2021 in relation to further arrangements for the orderly wind-down of certain GBP and Japanese Yen LIBOR settings.

The LIBOR benchmark administrator shall continue to publish 1, 3 and 6-month Sterling and Japanese Yen LIBOR settings ("LIBOR Settings") under a synthetic methodology (synthetic LIBOR), based on term risk-free rates, for the duration of 2022. This has been done to avoid disruption to legacy contracts which reference the LIBOR Settings.

The LIBOR Settings shall only be available for use in some legacy contracts and are not available for use in new contracts. (see [31] for more details).

2. Risk-free rates

i. What are RFRs and which RFRs have been selected to replace LIBOR?

RFRs are backward-looking overnight rates based on actual transactions. Various authorities and industry working committees have identified certain risk-free rates as alternative to LIBOR and are considering how existing benchmarks might be reformed in accordance with applicable regulation. The table below lays out the alternative risk-free rates recommended and endorsed by various industry working committees:

LIBOR	Alternate Risk-Free Rates	Industry Working Committee	Rate Administrator	Description	Publication Time	RFR-IBOR Spread Methodology
USD LIBOR	Secured Overnight Financing Rate (SOFR)	Alternative Reference Rates Committee [7]	Federal Reserve Bank of New York	▪ Fully transaction based ▪ Secured overnight rate with robust underlying money market	8:00 am ET	▪ 5-year lookback median approach
GBP LIBOR	Sterling Overnight Index Average (SONIA)	Sterling Working Group on Risk-Free Rates [3]	Bank of England	▪ Fully transaction based ▪ Unsecured overnight rate with robust underlying money market	9:00 am BST	▪ 5-year lookback median approach ▪ Forward Approach [9]
EUR LIBOR	European Short-term Euro Rate (€STR)	ECB Working Group on Euro Risk-Free Rates [8]	European Central Bank	▪ Fully transaction based ▪ Reflects the unsecured wholesale euro borrowing costs of Euro banks	8:00 am CET	▪ 5-year lookback median approach
CHF LIBOR	Swiss Average Rate Overnight (SARON)	The National Working Group on Swiss Franc Reference Rates [5]	SIX Swiss Exchange	▪ Transaction based + quotes ▪ Secured overnight rate since 2009 reflecting interest paid on repo	8:30 am CET (Every 10 minutes)	▪ 5-year lookback median approach
JPY LIBOR/JPY TIBOR	Tokyo Overnight Average Rate (TONAR)	Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks [6]	Bank of Japan	▪ Fully transaction based ▪ Unsecured rate based on the overnight call rate market	10:00 am JST	▪ 5-year lookback median approach
SIBOR/ SOR	Singapore Overnight Rate Average (SORA)	Steering Committee for SOR & SIBOR Transition	Monetary Authority of Singapore	▪ Fully transaction based	9:00 am SST	

		to SORA (SC-STS) [4]		▪ Unsecured rate based on overnight interbank SGD cash market		

ii. How are RFRs different from LIBOR?

RFRs are calculated on a structurally different basis than LIBOR and are not a like-for-like replacement for the same. While LIBOR is a forward-looking rate known at or prior to the commencement of the period to which they relate, RFRs are backward-looking overnight rates. RFRs do not contain liquidity and credit risk components as they're overnight rates. The table below sets out a non-exhaustive list of the differences between LIBOR and RFR.

LIBOR	ARR
Forward-looking term benchmark across multiple tenors (O/N, 1week, 1month, 2 months, 3 months, 6 months, 12 months)	Backward-looking overnight rate
The quotes submitted by the panel banks are transaction based, transaction derived (in case of insufficient eligible transaction data) and expert judgment base (in case of insufficient eligible transactions or transaction-derived data) [1]	Calculated as the volume weighted mean of actual transactions that took place in the overnight treasury repo market
Includes a built-in risk premium for credit risk and liquidity risk across tenors	Nearly risk-free rates
Centrally calculated in the London Interbank Market	Each country has its own rate calculation mechanism

iii. How is interest calculated for contracts that mature after the given LIBOR cessation date?

LIBOR will be used to calculate the interest rate until it stops being published. The interest rate for subsequent periods would no longer be calculated based on the relevant LIBOR rate. For subsequent periods, the interest rate would be calculated as per the fallback language in the contract. For example, if both parties to the trade have adhered to the International Swaps and Derivatives Association (ISDA) IBORs 2020 Fallback Protocol, or have bilaterally agreed, the interest rate for USD for post LIBOR cessation period would be calculated on a compounded SOFR in arrears methodology plus the credit adjustment spread (CAS) (Details on CAS computation is given in section 4).

iv. How is compounded in arears RFR rate computed?

Compounding in arrears is one of the methodologies used to compute the interest rate for a specified period. Compounding in arrears compounds daily values of the overnight rate throughout the relevant term period. This would mean that the applicable interest rate would only be known at the end of the interest accrual period. However, there are conventions in place such as arrears with payment delay, arrears with n-day lockout and arrears with n-day lookback which reduce the uncertainty of the final interest rate payable by the borrower. The ARRC's User's Guide to SOFR provides a comprehensive overview of the different compounding conventions that can be used with SOFR [10]. The RFRWG published recommendations regarding conventions for referencing compounded in arrears SONIA in the sterling loan market in September 2020 which contains illustrative worked examples of RFR compounding conventions for the Sterling loan market [11]. Compounding in arrears is compatible with a wide variety of derivatives and cash products. You can contact your relationship manager for the same.

v. What is the stance of working groups on forward looking term RFR rates?

It is desirable to have forward looking term RFRs so that there is not much change in place market standards. However, due to certain limitations, these rates may not be suitable in certain markets and there is no broader market consensus on the way forward. The following points state the stance of different working groups on term rates derived from risk-free rates:

- UK's Financial Conduct Authority selected ICE Benchmark Administration (IBA) to publish Term SONIA rates [12]. IBA launched its ICE Term SONIA Reference Rates ("ICE TSRR") on 11 January 2021 for use as a benchmark in financial instruments by licensees [13].

- The Alternative Reference Rates Committee (the "ARRC") in US formally recommended CME Group's forward looking SOFR Term rates on 29th July 2021 [14].
- The National Working Group on Swiss Franc Reference Rates do not recommend the use of a forward-looking term rates derived from risk-free rates.

3. Fallback Language

i. What is fallback language?

Fallback language within a contract acts as a how-to guide for identifying replacement rates / replacement rates) should the original benchmark be unavailable. In other words, it refers to the contractual provisions that lay out the process through which a replacement rate can be identified if a benchmark (e.g., USD LIBOR) is not available. This will also include an adjustment spread to deal with the differences between LIBOR and chosen fallback rate (Refer to section 4 for more details). Language also varies between derivatives and cash products and, even further, between different cash products. This variation drives uncertainty, so firms may be faced with a contract-level review to determine how to remediate impacted transactions. To address this, industry bodies are working to develop robust fallback provisions for several other interbank offered rates (IBOR) referencing transactions.

For over the counter (OTC) derivatives, the International Swaps and Derivatives Association (ISDA) amended the ISDA 2006 Definitions to include a LIBOR fallback mechanism. Moreover, on 11th June 2021, ISDA published the 2021 ISDA Interest Rate Derivatives Definitions, the latest in a series of definitional booklets that have provided the framework for documenting over-the-counter interest rate derivatives transactions since 1985. For cash products, national working groups, such as the US ARRC, have published proposed fallback language to implement in new transactions referencing IBOR. Refer to the next question for further details.

ii. What is ISDA 2020 IBOR Fallbacks Protocol and Supplement?

On 23rd October 2020, ISDA published its IBOR Fallbacks Protocol (Protocol) and Supplement to the 2006 ISDA Definitions (Supplement) to address the expected cessation of LIBOR and IBORs at the end of 2021. ISDA Definitions contain the floating rate option definitions for LIBOR and other IBORs. The rate option definitions do contain fallback provisions, but they were only intended to address short-term disruptions to the publication of LIBOR and other IBORs. With the permanent end of IBORs in sight, these current fallback provisions would appear to be inadequate to ensure a smooth transition to alternative benchmark rates.

The Protocol allows parties to derivatives transactions to bilaterally amend their existing transactions to incorporate the terms and conditions that are contained in the Supplement. The Supplement resolves the problem of transitioning by amending those rate option definitions – primarily – by introducing certain objective and observable trigger events for each IBOR and the alternative benchmark rate that such IBOR will "fall back" to. ISDA has also published a related set of frequently asked questions, as well as a User Guide to IBOR Fallbacks and RFRs, to assist market participants in navigating the Protocol and the Supplement.

Detailed information can be found in [15].

iii. Who can adhere to ISDA 2020 IBOR Fallbacks Protocol [16]?

The IBOR Fallbacks Protocol is open for adherence by any entity regardless of where it may be domiciled. Entities may adhere individually in their own capacity and/or as agents on behalf of Clients. Moreover, ISDA members and non-ISDA members alike may adhere to the IBOR Fallbacks Protocol in the same way.

iv. What fallback language documents have been released for cash products and/or derivatives?

The Alternative Reference Rates Committee has published recommended fallback language for Floating Rate Notes [17]; Bilateral and Syndicated Business Loans [18], [19]; Securitizations [20]; Student Loans [21]; and Adjustable Rate Mortgages [22].

Fallback language has further been made available by other industry bodies, including the International Swaps and Derivatives Association (ISDA) (which include fallback language for IBOR-referencing derivatives as part of the amendments to the ISDA 2006 Definitions and a Protocol [23] to facilitate the amendment of legacy derivatives transactions to include such fallbacks language) and the Loan Market Association (LMA).

v. What is IndusInd Bank Limited (IndusInd Bank/Bank) doing in respect of the ISDA IBOR Fallbacks?

IndusInd Bank has adhered to the ISDA IBOR Fallbacks Protocol which allows the Bank to bilaterally amend its existing transactions to incorporate the terms and conditions that are contained in the ISDA IBOR Fallbacks Supplement.

vi. What is the process of adhering to the Protocol?

Each market participant that intends to adhere to the IBOR Fallbacks Protocol should access the "Protocols" section of the ISDA website at www.isda.org to enter the information that is required to generate its form of Adherence Letter. Either by directly downloading the populated Adherence Letter from the Protocol system or upon receipt via e-mail of the populated Adherence Letter, each Adhering Party should sign the populated Adherence Letter and upload it as a PDF attachment into the Protocol system. Once the signed Adherence Letter has been approved and accepted by ISDA, such Adhering Party will receive an e-mail confirmation of adherence to the IBOR Fallbacks Protocol. For detailed step-by-step guidance please refer to [24].

vii. What is the process of incorporation of fallback language for Loans contracts?

Unlike Derivatives contracts, loan products do not have a uniform fallback language. The Loan Market Association (LMA) and Alternative Reference Rates Committee (ARRC) have proposed certain fallback languages for loans. All the loan products need to be renegotiated bilaterally (or with a consortium of lenders for syndicated loans). There is no similar protocol like ISDA which enables a multilateral amendment of Derivatives contracts.

The ARRC has published recommended fallback language for various cash products, including syndicated loans and bilateral business loans. According to the ARRC, agents in syndicated loans or lenders in bilateral loans may also "deem it prudent to include general disclaimer language with respect to LIBOR or any successor rate" in their loan agreements. It has suggested the following approaches that agents and lenders can use to address the discontinuation of LIBOR:

- Amendment approach. Under this approach, following a trigger event, the borrower and the administrative agent facilitate a streamlined loan agreement amendment to replace LIBOR by selecting a successor rate and a spread adjustment.
- Hardwired approach. Under this approach, fallback language is included in the loan agreement that provides for a specified waterfall of replacement benchmark rates after a trigger event occurs. The ARRC's best practice recommendation since mid-2020 has been to use hardwired fallback language in loan agreements.

viii. Is there a cut-off date for adherence to the IBOR Fallbacks Protocol?

There is currently no cut-off date for adherence to the IBOR Fallbacks Protocol, but ISDA reserves the right to designate a closing date of the IBOR Fallbacks Protocol by giving at least 30 days' calendar notice on the "ISDA 2020 IBOR Fallbacks Protocol" section of its website at www.isda.org.

ix. Are there any costs to adhere to the IBOR Fallbacks Protocol?

This depends on what type of ISDA member you are and when you adhere. Each Adhering Party/ Agent (adhering on behalf of client) that is an "ISDA Primary Member" must submit a one-time fee of U.S. $500 to ISDA on or before submission of its Adherence Letter. Each Adhering Party/agent that is not an "ISDA Primary Member" is not required to submit a fee to ISDA if it submits its Adherence Letter prior to the Protocol Effective Date. If an Adhering Party/agent which is not an "ISDA Primary Member" submits its Adherence Letter on or after the Protocol Effective Date, it must submit a one-time fee of U.S. $500 to ISDA on or before submission of its Adherence Letter. Affiliates and subsidiaries of "ISDA Primary Members" are categorized as an "ISDA Primary Member" for purposes of adhering to the IBOR Fallbacks Protocol and will therefore need to pay the "ISDA Primary Member" fee for each entity adhering to the IBOR Fallbacks Protocol.

4. Credit Adjustment Spread (CAS)

i. Why do we need spread adjustments and how will they be calculated?

LIBOR and RFRs are structurally different. As specified in Q1, RFRs will be different from the corresponding LIBOR benchmark rates due to absence of liquidity and credit risk. Thus, in order to make the rates more comparable and in line with each other, a credit adjustment spread (CAS) is added to the risk-free rate.

LIBOR + Margin = RFR + CAS + Margin

The credit adjustment spread calculated as per the ISDA methodology uses the 5-year lookback historical median approach. Under this method, the credit adjustment spread is calculated as the median difference over a historic five-year period between the relevant LIBOR being replaced and the corresponding risk-free rate compounded in arrears for the term equivalent to the term of the LIBOR it replaces.

On 5th March 2021, ISDA confirmed that, following FCA's announcement in relation to the permanent cessation and non-representativeness of all LIBOR settings, the credit spread adjustment had been fixed for all 35 LIBOR settings under the Bloomberg IBOR Fallback Rate Adjustments Rulebook [23]. On such date, Bloomberg published the fixed spread adjustment as calculated in respect of each LIBOR tenor [25]. Alternate methodologies to compute applicable credit adjustment spread may be chosen as well (in case of non-ISDA contracts or if ISDA protocol has not been signed).

ii. When will the credit spread adjustment be calculated and become active?

The fixed spread adjustment as recommended by ISDA and published by Bloomberg was calculated and fixed on 5th March 2021. This fixed credit adjustment spread will apply to all contracts that reference the ISDA master agreement and the revised 2006 ISDA definitions.

iii. Will there be any basis risk if the credit spread adjustment is not identical between cash products and derivatives?

Basis risk can arise if there is a difference between the credit spread adjustment calculation methodology between derivatives and cash products. Industry working groups have been strongly advocating consistency across derivatives and cash products. As long as there is consistency between the credit spread adjustment calculation methodologies, the basis risk between derivatives and cash products should be low.

iv. What are the credit adjustment spreads fixed by Bloomberg?

ISDA 5-year median CAS (in % terms) as on 5th March 2021 are as follows:

Tenor/ Currency	CHF	EUR	GBP	JPY	USD
Overnight /Spot/Next*	-0.0551	0.0017	-0.0024	-0.01839	0.00644
1 week	-0.0705	0.0243	0.0168	-0.01981	0.03839
1 month	-0.0571	0.0456	0.0326	-0.02923	0.11448
2 months	-0.0231	0.0753	0.0633	-0.00449	0.18456
3 months	0.0031	0.0962	0.1193	0.00835	0.26161
6 months	0.0741	0.1537	0.2766	0.05809	0.42826
12 months	0.2048	0.2993	0.4644	0.16600	0.71513

*For CHF and JPY, its Spot/Next and for all other currencies, its Overnight

5. Product Related Questions

i. Which products offered by the Bank shall be impacted due to the transition?

All products offered by the bank having an exposure to LIBOR shall be impacted by the transition. The key products are as below –

1) Banking book –
    a. Key LIBOR linked products include floating rate term loans, working capital facilities & borrowings. The impact will be from a cash flow estimation perspective. Additionally, the underlying rate for the fixed rate deposits is computed using LIBOR.
    b. The trade finance products such as buyer's credit, FCY bill discounting & packing credit are also priced using the LIBOR.

2) Trading Book –
    a. IR derivatives - Key impacted products include interest rate swaps, cross currency swaps and caps & floors. Along with discounting, the impact will be from an MTM/valuation perspective.

b. FX derivatives – Key impacted products include FX Forwards, FX Swap, FX Flexi-forward, FX Option, FX NDF & FX NDF Swaps. The impact on FX derivatives will be minimal & will be primarily from discounting perspective.

ii. What will be the cashflow impact once the Bank transitions to RFRs?

Impact on trading book

The transition of trades from LIBOR to ARRs will likely happen as per the below two scenarios -

a. **Fallback transition:** All the trades expiring after the cessation dates will be transitioned automatically to the respective ARR (refer to table in section 2, point i) and the respective ISDA 5-year median spread frozen as on 5th March 2021 (refer to table in section 2, point iv). The transition of a particular contract will be effective on the 1st reset date after the cessation date.

b. **Active transition:** The Bank and the counterparty can decide to transition the legacy contracts actively on any given date (till the cessation date, as after the cessation date, the contracts will be automatically transitioned as per the above point) to the respective ARR and Credit adjusted spread (CAS). The CAS in this can be negotiated with the counterparty and can be either based on market traded quotes (LIBOR-ARR basis swaps) or ISDA 5-year median spread frozen as on 5th March 2021.
   i. In case the transition takes place at market spreads, then there will not be any P&L impact for either the Bank or the counterparty.
   ii. However, if the Bank and the counterparty agree to transition using the ISDA frozen CAS, due to the difference in market spreads and this CAS, there will be a P&L impact for both Bank and the counterparty. In case of active transition, the nuances around how to structure the deal (either as cancel/rebook or as just terms change) is still not clear from the market. Hence, as the accounting and tax implications depend on the nuance of the transition, the details around the same cannot be commented immediately.

The above scenarios cover trades that are directly linked to LIBOR, i.e. where the cash flows of the trade are based on LIBOR. For the purpose of valuation, the existing discount curve used for calculating the present value (PV) of future cash flows is also based on LIBORs and after the cessation date, the same will also transition to ARRs. But, with respect to single currency interest rate swaps (IRS) and USD-INR (or any other FCY-FCY) cross currency swaps (XCCY swaps), both the pay and receive legs will simultaneously transition to the respective ARRs and hence the valuation impact will be minimal. Furthermore, with respect to FX products (Forwards and swaps), the impact will be with respect to valuations as the discount curves will transition from LIBORs to ARRs.

Impact on Banking Book

With respect to Banking book products like loans, borrowings etc., since there is no market standard protocol for transition (similar to ISDA protocol in Derivatives), the Bank and the counterparty may have to follow the approach mentioned in points a & b above. (In addition to the 5-year median spread as proposed by ISDA, the ARRC has also recommended a 1-year transition period to the 5-year median spread adjustment methodology).

Moreover, ARR committees like ARRC and Sterling RFR Group have allowed the use of Term SOFR and Term SONIA published by CME and ICE Benchmark Administration respectively to replace LIBORs for trade finance products and business loans. Hence, instead of moving to a compounded ARR, the Bank and its customer have an option transition to term ARRs also. The ARRC supports the use of SOFR term rate derivatives for end-user facing derivatives intended to hedge all the cash products that reference the SOFR term rate. It is generally preferred that the customer / counterparty transitions both the loan and its hedge at the same time and using the same spread methodology to reduce any basis risk.

6. Client Related Questions

i. How shall clients prepare for the transition away from LIBOR?

Clients are encouraged to be updated with the latest industry developments with respect to LIBOR transition. They should monitor the latest reports/news/announcements made by working groups, trade associations and international bodies. Clients shall also regularly meet with their own legal and financial advisers in order to familiarise themselves with RFRs. They shall further seek clarification with regards to any issues/queries regarding the same. They can also refer to websites of the working groups for each currency, FCA and ISDA in order to stay updated with the latest developments on LIBOR transition. IndusInd Bank is further working with clients to transition legacy LIBOR-impacted contracts before the given LIBOR ceases to be published. IndusInd Bank is committed to follow the industry standards consistently wherever it deems to be practical.

ii. What is the impact of not amending any existing LIBOR contract?

Not amending the LIBOR contract could have multiple implications contingent on several items such as the contractual provisions for the financial product, the alternative RFR solutions available, etc. IndusInd Bank encourages clients to take appropriate independent professional advice (legal, tax, accounting, financial or other). Furthermore, clients may (on advice) of their financial/legal consultants wish to adhere to ISDA IBOR Protocol and if they don't adhere, then bilateral amendments to their contracts have to be agreed with the Bank (may be EY can advise on this).

iii. How has COVID-19 impacted the transition?

FCA, Bank of England and members of the Working Group on Sterling Risk-Free Reference Rates jointly announced that despite the COVID-19 pandemic, firms cannot rely on LIBOR being published after the end of 2021 and that this should remain the target date for all firms to meet. However, there could be a delay in achieving pre-set milestones.

7. MIFOR & MIBOR

i. What is MIFOR?

The Mumbai Interbank Forward Offer Rate (MIFOR) is the rate that Indian banks use as a benchmark for setting prices on forward-rate agreements and derivatives. It is a mix of the London Interbank Offered Rate (LIBOR) and a forward premium derived from Indian forex markets. It is published for O/N, 1, 2, 3, 6 and 12-months maturities at 5 PM IST every day and is used for interbank transactions only. In India, exposures to LIBOR arise from loan contracts linked to LIBOR, foreign currency non-resident (FCNR) deposits with floating rates of interest linked to LIBOR, and derivatives linked to LIBOR or MIFOR.

ii. What will MIFOR be replaced by?

Legacy contracts:

Adjusted MIFOR shall replace MIFOR which is based on the fallback rate for USD LIBOR i.e. the adjusted SOFR (SOFR compounded in arrears) plus a spread adjustment. The spread adjustment is calculated as a historical median spread with a 5-year lookback period between LIBOR and adjusted SOFR. Hence, adjusted MIFOR for legacy contracts is proposed to be computed basis adjusted SOFR and USD INR forward premia as its components.

New MIFOR contracts:

Modified MIFOR rate shall be used. It will be computed using the SOFR Index published By Federal Reserve without any spread adjustment value to SOFR. FBIL Modified MIFOR Curve will be computed using the Adjusted SOFR rate and the FBIL Forward Premia rate. The Adjusted SOFR compounded in arrears for various tenors is obtained from the Bloomberg Index Services Ltd. (BISL). The FBIL Forward Premia Curve is a transaction-based benchmark that is computed from the USD/INR Cash-Tom and Spot-Forward trades which are reported to the Clearing Corporation of India (CCIL) for settlement. Detailed information can be found in [26].

However, it is important to note that contracts referencing LIBOR / MIFOR may generally be undertaken after December 31, 2021 only for the purpose of managing risks arising out of LIBOR / MIFOR referenced contracts undertaken on or before December 31, 2021 [27].

iii. What if the O/N fallback rate is not published by Bloomberg?

Based on clarifications from Bloomberg, the overnight rate would be provided. In case it is not available, post-LIBOR cessation, the SOFR from FED would be taken and the constant spread of O/N SOFR to O/N LIBOR based on 5-year data would be applied.

iv. **Post what date shall publication of MIFOR cease?**

RBI has advised Banks to cease using the Mumbai Interbank Forward Outright Rate (MIFOR), a benchmark which references the LIBOR, as soon as practicable and in any event by December 31, 2021.

v. **Who is responsible for publishing MIFOR rates and from which date are they being published?**

Financial Benchmarks India Pvt Ltd (FBIL) has started publishing daily adjusted MIFOR rates from June 15, 2021 and modified MIFOR rates from June 30, 2021 which are used for legacy contracts and fresh contracts respectively.

vi. **Are products referencing MIBOR (Mumbai Interbank Offered Rate) also impacted by the transition?**

No, products referencing MIBOR are not impacted. It is an unsecured daily benchmark based on call money market transactions which was considered as one of the alternative benchmarks to replace MIFOR.

8. RBI Advisory Guidelines

Steps suggested by RBI to ensure preparedness of banks to transition away from LIBOR [27]**:**

The transition away from LIBOR and the adoption of RFRs developed in various jurisdictions is a significant event which needs to be carefully prepared for in order to manage potential customer protection, reputational and litigation risks as well as avoid disruptions to the safety and resilience of financial institutions and overall financial stability of the economy. For the same, RBI issued guidelines to assist banks and other RBI regulated entities to transition from LIBOR to RFRs. The steps suggested are as follows:

- Banks and financial institutions are encouraged to cease entering into new financial contracts that reference LIBOR as a benchmark and instead use any widely accepted alternative reference rate (ARR), as soon as practicable and in any case by 31st December 2021.
- Banks and financial institutions are urged to incorporate robust fallback clauses in all financial contracts that reference LIBOR and the maturity of which is after the announced cessation date of the LIBOR settings.
- Banks and financial institutions are encouraged to ensure that new contracts entered into before 31st December 2021 that reference LIBOR and the maturity of which is after the date on which LIBOR ceases or becomes non-representative include fallback clauses.
- Banks have also been advised to cease using the Mumbai Interbank Forward Outright Rate (MIFOR), a benchmark which references the LIBOR, as soon as practicable and in any event by 31st December 2021. In this context, Financial Benchmarks India Pvt Ltd (FBIL) has started publishing daily adjusted MIFOR rates from 15th June 2021 and modified MIFOR rates from June 30, 2021 which can be used for legacy contracts and fresh contracts respectively.
- Contracts referencing LIBOR / MIFOR may generally be undertaken after 31st December 2021 only for the purpose of managing risks arising out of LIBOR / MIFOR referenced contracts undertaken on or before 31st December 2021.

Summary of the given guidelines can be found in [28].

RBI Advisory: Key issues identified with benchmarks replacing MIFOR [29]

Banks have been advised to cease using the Mumbai Interbank Forward Outright Rate (MIFOR), a benchmark which references the LIBOR, as soon as practicable and in any event by 31st December 2021. In this context, Financial Benchmarks India Pvt Ltd (FBIL) has started publishing daily adjusted MIFOR rates from 15th June 2021 and modified MIFOR rates from 30th June 2021 which can be used for legacy contracts and fresh contracts respectively. Other alternatives are MROR, MIBOR, use of SOFR with USD INR Cash/Tom Swap rate, etc. It was noted that each of the alternate benchmarks shall have advantages and issues.

- The use of the SOFR with the forward premia, for example, shall closely mimic the MIFOR but shall involve the use of one forward-looking and one backward-looking component.
- Use of the SOFR and the USD INR Cash/Tom Swap Rate, both of which are compounded in arrears, will address this issue but a benchmark based on cash / tom swap rates is likely to be more volatile than one based on forward premia.
- The MROR is a benchmark based on secured overnight transactions in a liquid market encompassing both bank and non-bank participants and hence closely shares the features of international RFRs. At present, however, IRS contracts referencing the MROR are not prevalent.

- The MIBOR is based on a less liquid interbank call market but MIBOR-based swaps account for the bulk of outstanding IRS contracts in the country. In any case, MIBOR, MROR and T-bill rates are domestic rates and their use as a RFR will need the development of a market for cross currency basis swaps. Issues associated with deriving a term structure for the RFR, as in global markets, will also need to be addressed.

Contracts referencing LIBOR / MIFOR may generally be undertaken after 31st December 2021 only for the purpose of managing risks arising out of LIBOR / MIFOR referenced contracts undertaken on or before 31st December 2021.

Risk Disclosure

It is important that market participants comprehend the risks associated with holding existing as well as new instruments with LIBOR references. Clients should independently assess the impact of these changes on their portfolio and take appropriate action as required. Some of the risks faced are mentioned below:

- **Valuation Risk:** Risk of changes in valuation of contracts referencing LIBOR either due to reduced submissions, discontinuation or amendments to the methodology used to calculate the benchmarks. This is true particularly if reference rates or fallback provisions are not aligned between commercially linked positions.
- **Hedging Risk:** Risk that effectiveness of hedging is undermined as benchmarks may perform differently than in the past, and financial products referencing existing Benchmarks scheduled to be discontinued may perform differently as a result.
- **Fallback language Risk:** Risk of inadequate amendments to contracts. Although changes are made to documentation and contracts to incorporate fallback language or to support the transition to new reference rates; there exists a risk of inadequate changes.
- **Operational Risk:** Operational and system changes required in the event of Benchmark cessation; in order to support new RFRs. For e.g. where systems need to be updated to support alternative rates.
- **Tax Risk:** Tax impacts of amendments to existing financial arrangements.

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