LIBOR TRANSITION

Compendium

June 2021

AXIS BANK

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“In light of the UK Financial Conduct Authority’s announcement regarding London Interbank Offered Rate (LIBOR) phase out by end of 2021, regulators from various jurisdictions have taken steps to transition away from LIBOR.”

The current LIBOR rates will be replaced by **Alternative Reference Rates (ARRs)** recommended by regulators

AGENDA

1. LIBOR Background, Need for Transition & ARRs
2. Transition Timelines, & Key Differences
3. Contract Remediation – Derivatives & Loans
4. Fallback Methodology – Derivatives & Loans
5. Loans – Methodologies for ARR in arrears
6. ISDA IBOR Fallbacks Protocol and Supplement

The agenda of this material is to explain some key aspects of LIBOR Transition.

1

LIBOR Background

Need for Transition

ARRs

LIBOR Background

LIBOR – London Interbank Offered Rate

- LIBOR is based on submissions provided by a panel of banks and LIBOR rates are intended to reflect the interest rate at which banks could borrow money on unsecured terms in wholesale markets.

- LIBOR is currently published by Intercontinental Exchange (ICE) once a day using waterfall method. The calculation process is overseen by ICE Benchmark Administration (IBA) and regulated by Financial Conduct Authority.

- LIBOR is used as a global benchmark interest rate for derivatives, bonds and loans. More than $350 trillion worth of financial contracts are linked to LIBOR globally. It reflects market expectation regarding central bank's interest rates, liquidity premiums in the money markets and, during periods of stress, it indicates of the health of the banking system.

LIBOR is currently in published for **5 currencies** and for **7 tenors** in respect of each currency.

CURRENCIES	TENORS
USD	ON/SN
GBP	1W
EUR	1M
CHF	2M
JPY	3M
	6M
	12M

Need for Transition

- Allegations regarding LIBOR manipulation had first surfaced in 2012. Studies revealed that LIBOR had been manipulated to not only window dress banks' financial statements, but also to generate substantial trading profits from LIBOR linked exposures.

- Furthermore, global regulators have noted that the representativeness of LIBOR as a funding rate for banks has reduced significantly in comparison to Alternative Reference Rates (ARRs).

Announcement from Regulators

- The Financial Conduct Authority (UK) announced the phase out of London Interbank Offered Rate (LIBOR) by the end of 2021. In response to this, regulators from various jurisdictions have taken steps to transition away from these deeply embedded IBORs.

- The Reserve Bank of India (RBI) issued a letter to all Indian banks on 6th August, 2020 (CO.FMRD.DIRD. 49/14.02.001/2020-21), urging them to prepare for this large scale transition.

Impact on India

- In India, LIBOR is linked to derivative contracts, foreign currency term loans, foreign currency demand loans, trade finance loans and external commercial borrowings.

- Additionally, an Indian benchmark rate, i.e. Mumbai Interbank Forward Offer Rate (MIFOR) is derived from LIBOR and approximately $1 trillion worth of derivative contracts are linked to MIFOR.

Alternative Reference Rates (ARRs)

LIBOR	Alternative Reference Rates		Administrator	Secured/Unsecured
USD LIBOR	**SOFR**	**Secured Overnight Financing Rate**	**Federal Reserve of New York**	**Secured O/N Rate**
GBP LIBOR	**SONIA**	Sterling Overnight Index Average	**Bank of England**	**Unsecured O/N Rate**
EUR LIBOR	**ESTR**	Euro Short-term Rate	**ECB**	**Unsecured Wholesale EURO borrowing**
CHF LIBOR	**SARON**	Swiss Average Rate Overnight	**SIX Swiss Exchange**	**Secured O/N Rate**
JPY LIBOR/TIBOR	**TONAR**	Tokyo Overnight Average Rate	**BoJ**	**Unsecured O/N Rate Market**
SGD SOR	**SORA**	Singapore Overnight Rate Average	**MAS**	**Unsecured O/N Rate**

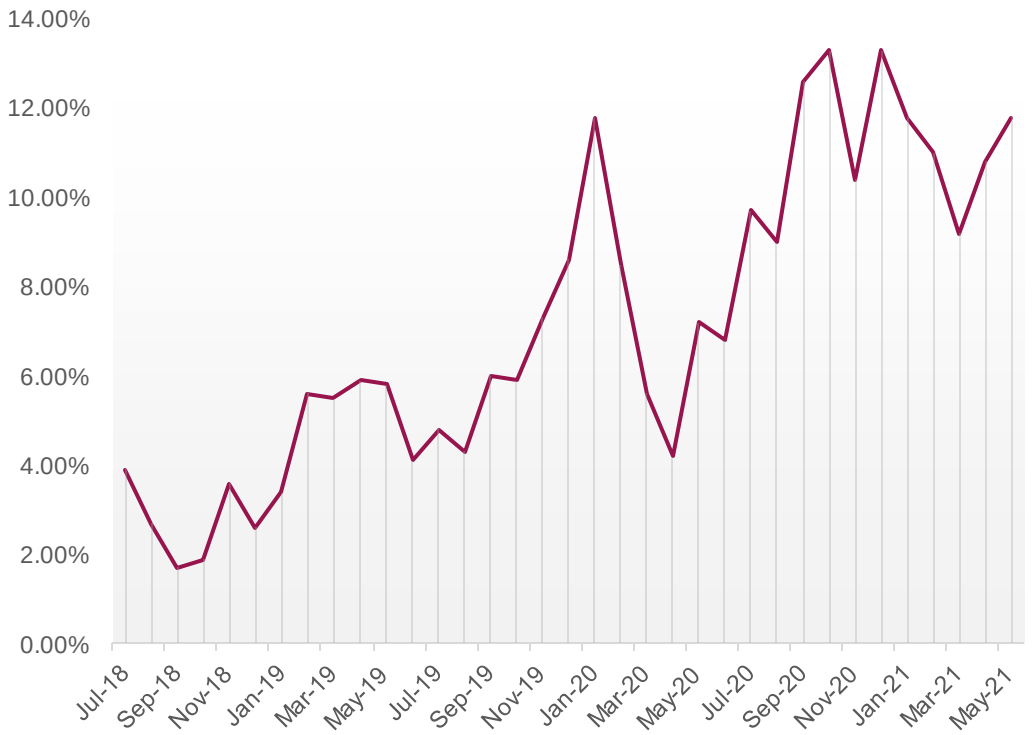
- Average daily trading volumes of ARRs continue to rise. There was good pickup in SOFR based trades driven by the CCPs switching from Fed Funds to SOFR discounting in Oct 2020.
- By April 2021, more than half of new GBP Swap trades were based on SONIA. Rapid progress is being made in GBP, while for other major currencies it has been gradual.

All ARRs mentioned above are **overnight** reference rates

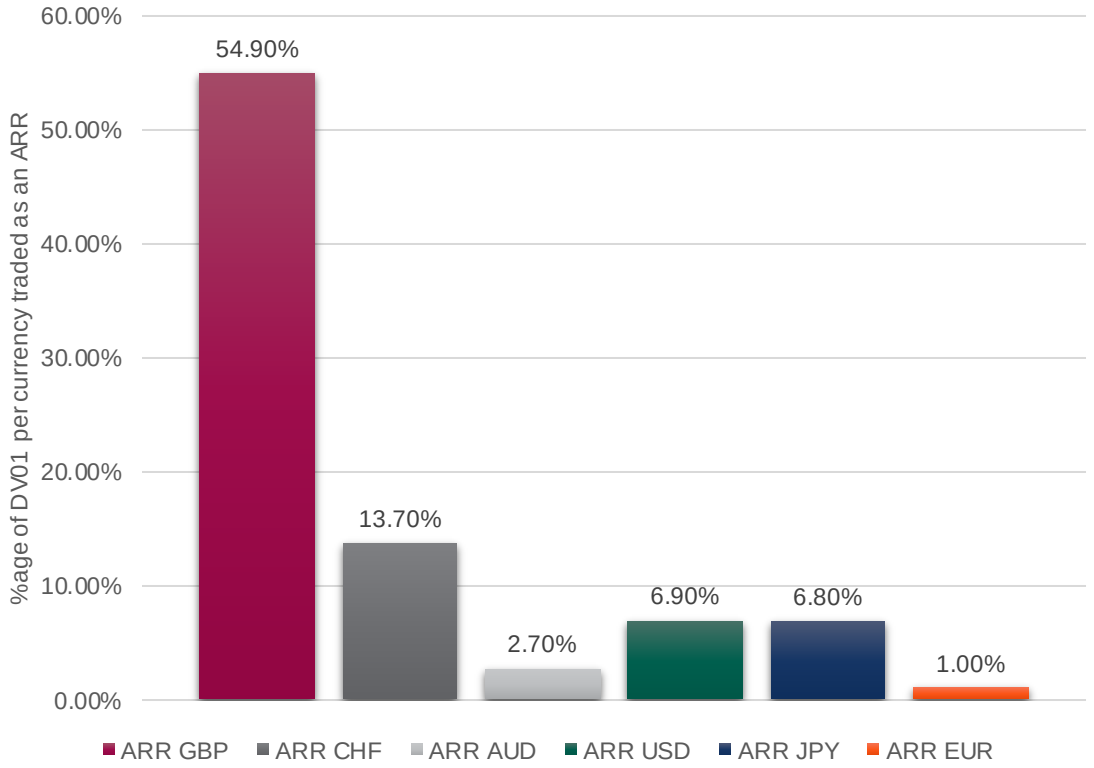
- In Europe, EUR LIBOR will be discontinued by December 2021 whereas EURIBOR is not expected to cease in the near future. However, ECB has recommended the transition to ESTR as a fallback rate and for replacing EUR LIBOR.
- Progress in JPY has been very gradual, and Japan plans to take a multiple rate approach wherein Domestic TIBOR is expected to continue with TONAR. In addition, EuroYen TIBOR is expected to discontinue after the cessation of JPY LIBOR.

ARR Adoption Indicator (ISDA)

ARR Adoption: ARR Notional as a %age of total notional traded



ARR Adoption in May 2021



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Transition Timelines

Key Differences

Transition Timelines

LIBOR Setting	Last date of publication/ representativeness	Index Cessation Effective Date	ISDA Spread Adjustment Fixing Date
CHF LIBOR			
All CHF LIBOR settings PERMANENT CESSATION	**December 31, 2021**	January 1, 2022	March 5, 2021
EUR LIBOR			
All EUR LIBOR settings PERMANENT CESSATION	**December 31, 2021**	January 1, 2022	March 5, 2021
GBP LIBOR			
Overnight, 1-week, 2- month and 12 month GBP LIBOR settings PERMANENT CESSATION	**December 31, 2021**	January 1, 2022	March 5, 2021
1-month, 3-month and 6-month GBP LIBOR Settings CEASE or SYNTHETIC BASIS	**December 31, 2021**	January 1, 2022	March 5, 2021

Source: *Financial Conduct Authority 'FCA announcement on future cessation and loss of representativeness of the LIBOR benchmarks'.*

Transition Timelines

LIBOR Setting	Last date of publication/ representativeness	Index Cessation Effective Date	ISDA Spread Adjustment Fixing Date
JPY LIBOR			
Spot next, 1-week, 2-month and 12-month JPY LIBOR settings PERMANENT CESSATION	**December 31, 2021**	January 1, 2022	March 5, 2021
1-month, 3-month and 6-month JPY LIBOR Settings CEASE or SYNTHETIC BASIS	**December 31, 2021**	January 1, 2022	March 5, 2021
USD LIBOR			
Overnight and 12-month USD LIBOR settings PERMANENT CESSATION	**June 30, 2023**	July 1, 2023	March 5, 2021
1-week and 2-month USD LIBOR settings PERMANENT CESSATION	**December 31, 2021**	July 1, 2023	March 5, 2021
1-month, 3-month and 6-month USD LIBOR Settings CEASE or SYNTHETIC BASIS	**June 30, 2023**	July 1, 2023	March 5, 2021

Source: *Financial Conduct Authority 'FCA announcement on future cessation and loss of representativeness of the LIBOR benchmarks'.*

ISDA Spread Adjustment (Fixed on 5th March, 2021)

USD LIBOR

Tenor	Spread Adjustment
O/N	0.00644%
1w	0.03839%
1m	0.11448%
2m	0.18456%
3m	0.26161%
6m	0.42826%
12m	0.71513%

GBP LIBOR

Tenor	Spread Adjustment
O/N	-0.0024%
1w	0.0168%
1m	0.0326%
2m	0.0633%
3m	0.1193%
6m	0.2766%
12m	0.4644%

EUR LIBOR

Tenor	Spread Adjustment
O/N	0.0017%
1w	0.0243%
1m	0.0456%
2m	0.0753%
3m	0.0962%
6m	0.1537%
12m	0.2993%

CHF LIBOR

Tenor	Spread Adjustment
S/N	-0.0551%
1w	-0.0705%
1m	-0.0571%
2m	-0.0231%
3m	0.0031%
6m	0.0741%
12m	0.2048%

JPY LIBOR

Tenor	Spread Adjustment
S/N	-0.01839%
1w	-0.01981%
1m	-0.02923%
2m	-0.00449%
3m	0.00835%
6m	0.05809%
12m	0.16600%

Source: *Bloomberg*

“Global regulators have issued supervisory guidance to limit new use of USD LIBOR after the end of 2021”

In other words it is expected that the **Bank will not offer fresh Derivative/Cash products that are linked to LIBOR** after 31st December, 2021

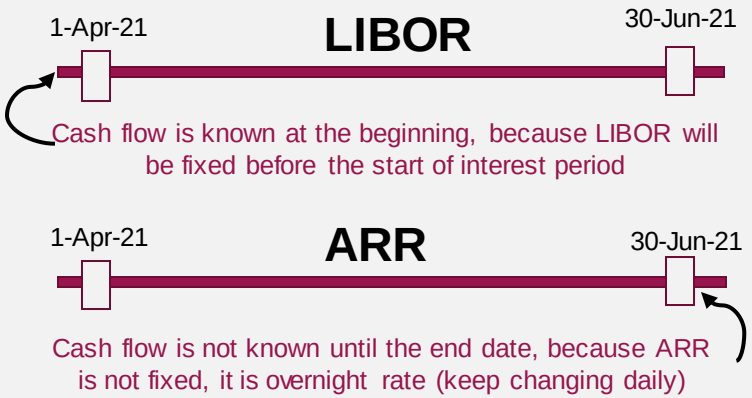
Key differences between LIBOR and ARRs

1. LIBOR vs **ARRs**

LIBOR: Risk Free Component + Liquidity Adj. for Tenors + Credit Risk Component

ARRs: Risk Free Component

2. Cash flow/Interest Amount



Key Aspects	LIBOR	ARRs
Calculation Methodology	Based on panel bank submissions	Based on Actual Transactions
Term Structure	Using Forward-looking tenors ON/SN, 1W, 1M, 2M, 3M, 6M and 12M	Using Backward-looking O/N Rates
Credit Premium	Credit Risk Premium included in the rates	No Premium, it is Risk Free rates *(in some cases not completely risk free as some rates are unsecured)*
Methodology	All 5 Currencies follow same methodology	Each Currency has different methodology
Publication Time	All 5 Currencies/7 tenors at 11:55 am London time on each applicable London business day	Rates for each of the 5 currencies will be published daily at different times by 5 different administrators and regulated by 5 different regulators

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Contract Remediation

Derivatives Contracts

Loan Contracts

Contract Remediation

Existing contracts (maturing beyond the LIBOR cessation dates)

Contract remediation and repapering is required. All the existing contracts (maturing beyond the respective LIBOR cessation date) need to be remediated on the basis of developed **fallback language**.

Fallback language - It refers to the provision which defines the process to identify a replacement rate if benchmark rate is not available.

Fallback language in Existing contracts

Derivatives

- The current fallback language in existing derivative contracts is not sufficient to address the permanent cessation of LIBOR. While it provides a solution when benchmark rates are temporarily unavailable (e.g. owing to a natural calamity in London because of which panel banks are unable to provide a quote) it will not address the situation where benchmark rates are permanently unavailable.

Loans

- Loan contracts which are linked to LIBOR and are maturing after the respective cessation dates may be amended to incorporate fallback provisions where necessary.
- Long Term Facility Agreements will also require amendments

Contract Remediation: *Identifying the affected contracts and make necessary changes on the basis of fallback language*

Derivatives Contracts (ISDA)

NEW CONTRACTS

ISDA has published a **Supplement (which came into effect on 25th January 2021) to its 2006 Definitions,** all new cleared and non-cleared contracts derivative trades that reference the definitions will automatically incorporate the new Fallbacks.

2020 IBOR Fallbacks Supplement	To incorporate **IBOR Fallback Provisions as an amendments** to the **2006 ISDA Definitions**

LEGACY CONTRACTS

ISDA has published a **Protocol** that enables parties to introduce the new Fallbacks included in the Supplement in existing ISDA Master Agreements, ISDA Credit Support Documents and Confirmations, provided they are Protocol covered documents. The Protocol Effective Date was 25th January 2021. The Protocol will allow firms to include the new Fallbacks into their existing trades with other parties that choose to adhere. Currently there is no cut-off date for adhering to the Protocol.

2020 IBOR Fallbacks Protocol	To incorporate **Supplement terms in existing transactions** – **Multilateral Implementation**
Bilateral Documents	For the firms who decide not to adhere to the ISDA Protocol

Loans – Bilateral negotiations

1. Unlike Derivatives contracts, loan products do not have any uniform fallback language. Counterparties must negotiate outstanding LIBOR linked loan contracts, bilaterally.

2. **Hardwired Approach**:
    1. Parties agree to switch rates out of LIBOR into an alternate rate
    2. Parties agree on the methodology of computing the alternate rate

3. Parties are advised to negotiate hardwired approaches for legacy contracts. The alternative, a 'rate switch' clause in agreements now and methodology later, will entail extra legal costs and uncertainty.

4. Parties must also ensure that any new LIBOR linked contracts (prior to transition date) include a hardwired clause to switch out of LIBOR into ARR on respective transition dates.

LMA: *https://www.lma.eu.com/documents-guidelines/documents#reference-rate-selection-agreement144*

ARRC: *https://www.newyorkfed.org/arrc/fallbacks-contract-language*

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Fallback Methodology

Derivatives and Loans

Replacing LIBOR in Legacy Contracts

3m LIBOR

= 3m risk free rate

+ Interbank credit spread

replace with

All – in Fallback Rate

= SOFR compounded in arrears

+ Historical median of spread between LIBOR and SOFR

Derivatives – ISDA Fallbacks Methodology

The methodology used in the calculation of the IBOR fallbacks. It was determined through a series of market-wide consultations conducted by ISDA.

All-in Fallback Rate* = **Adjusted Reference Rate*** + **Spread Adjustment**

Adjusted Reference Rate

- Overnight 'risk-free' rate compounded to provide a term rate
- Set in arrears

Spread Adjustment

- Median spread between IBOR and adjusted reference rate over a five-year historical period
- Becomes a fixed value when the IBOR cessation is triggered

(5^{th} March 2021 is the 'Spread Adjustment Fixing Date' for all LIBOR Tenors across all LIBOR currencies – refer slide 12 for further details)

NOTE: The selected methodology is fixed and cannot be altered without ISDA conducting further market consultations.

Interest Period Adjustment – **Lookback with Observation Shift**

- Interest calculation period is shifted 2 Business days backwards (Observation Shift)
- Interest calculation period ends on 2 Business days prior to the Payment Date
- So, Rate is known some days before the payment date.

**Published by Bloomberg based on the Methodology defined in the Bloomberg IBOR Fallback Rate Adjustment Rule Book*

FBIL – Adjusted and Modified MIFOR

- Mumbai Interbank Forward Offer Rate (MIFOR) is also derived from LIBOR and approximately $1trillion worth of contracts are linked to MIFOR. Hence, phase out of LIBOR will raise issues related to existing contracts and methodology used to calculate rates like MIFOR.

Current Method

$$FBIL\ MIFOR = f(USDINR\ Forward\ Premia, USD\ LIBOR)$$

Computed for 6 tenors, viz. the Overnight, 1 month, 2 month, 3 month, 6 month and 12 month

- IBA (Indian Banking Association) has conducted market surveys to understand the market view regarding MIFOR fall back mechanics and to explore the options around replacing the current MIFOR benchmark.
- FBIL has published calculation methodologies for Adjusted MIFOR and Modified MIFOR

	Adjusted MIFOR*	Modified MIFOR*
Formula	All-in Fallback USD Rate + USDINR Forward Premia All-in Fallback = Adjusted SOFR + Spread Adjustment Value (published by Bloomberg)	Adjusted SOFR + USDINR Forward Premia
Applicable for	Legacy contracts	New contracts
Tenors	6 tenors—O/N; 1m ; 2m; 3m; 6m and 12m	
Publishing Time	In-Arrears	

** Simplified for understanding purpose. For actual equation to calculate Adjusted and Modified MIFOR, please refer www.fbil.org.in*
There might be some supplement to ISDA IBOR Protocol which will incorporate Adjusted and Modified MIFOR.
Modified MIFOR is based on the draft methodology published on FBIL website.

Publication of FBIL Adjusted MIFOR* Curve

1 **SOFR** Federal Reserve publishes the SOFR next day at **8 am EST**

2 **All-in fallback Rate** Bloomberg will publish the fallbacks within **45 minutes** thereafter under normal circumstances

3 **Adjusted MIFOR Curve** Publication time would be **45 minutes** after the data on rates for all tenors is made available by Bloomberg, which is at around **19:00 IST**

In case of revision of the SOFR rate → Federal Reserve has a restatement window of **6.5 hours**

1 **SOFR** A revision of the SOFR rate, which would be published by **2:30 PM EST**

2 **All-in fallback Rate** Bloomberg will publish the fallbacks within **45 minutes** of that announcement

3 **Revised Adjusted MIFOR Curve** Published on the **next business day** at around **10:30 IST**

** The FBIL Adjusted MIFOR will be published on the website of FBIL www.fbil.org.in*

Publication of FBIL Modified MIFOR* Curve

1 **SOFR** Federal Reserve publishes the SOFR next day at **8 am EST of USA**

2 **Adjusted SOFR** The FBIL-approved data service provider will publish the Adjusted SOFR within **45 minutes** thereafter under normal circumstances

3 **Modified MIFOR Curve** Publication time would be **45 minutes** after the Adjusted SOFR for all tenors is made available, which is at around **19:00 IST**

In case of revision of the SOFR rate → Federal Reserve has a restatement window of **6.5 hours**

1 **SOFR** A revision of the SOFR rate, which would be published by **2:30 PM EST**

2 **Adjusted SOFR** The FBIL-approved data service provider will publish the restated Adjusted SOFR within **45 minutes** of that announcement

3 **Revised Modified MIFOR Curve** Published on the **next business day** at around **10:30 IST**

** The FBIL Modified MIFOR will be published on the website of FBIL www.fbil.org.in*
Modified MIFOR is based on the draft methodology published on FBIL website.

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Loans

Term LIBOR vs O/N ARR

Methodologies for ARR

Hedge Effectiveness

Loans – Term LIBOR vs O/N ARR

O/N ARR - In Arrears	Term LIBOR - In Advance
Payment delays, lookbacks and lockouts allow some notice, while reducing the basis with derivative contracts	Based on an average of rates observed before the start of the interest period
Reflects the actual behaviour of interest rates during the interest period	Will be known at the start of the interest period
Gives little notice before the payment is due	Will create a basis between loan and derivative. Basis can be larger for longer reset periods.

Loans - Methodologies for ARR in arrears

COMPOUND INTEREST

Simple Interest	Payment Delay	Lookback	Lockout
Easy to calculate	Use of compounded average SOFR over current interest period, paid *k* days after the end of the interest period (e.g. settlement T+2 in line with OIS swaps)	Use of SOFR rate published *k* days earlier (Two methods – **Observation shift** and **Lag shift**)	Last few rates fixed at the rate set k days before the end of the interest period (e.g. the rate set on 25th June is used for the remaining days until 30th June)
Easy to implement	Structure matches derivatives and could be easily hedged using swaps.	Structure closely matches derivatives and could be approximately hedged using swaps.	Does not exactly match the basic swap structure and can create some hedging basis.
Small difference with compounded interest rate (at low levels of interest rates, the differences are close to 0 bps)	Rate is known 1d after the end of the interest period (given the fixing lag in SOFR).	Rate is known some days before the payment date.	Further rules needed for prepayments.
Less accurately reflects the time value of money.		Prepayments are relatively easy	For most of the interest period, the daily rate will be the last known value.
will lead to inaccurate hedging with derivatives			

Lookback Methodology

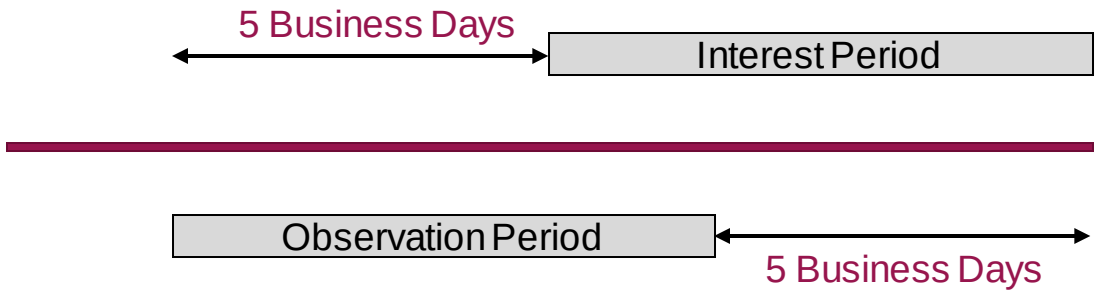
- It creates a **Notional** Observation Period
- No. of calendar days/Business days in the **Observation** Period
- ARR will be observed for each business day in the **Observation** period

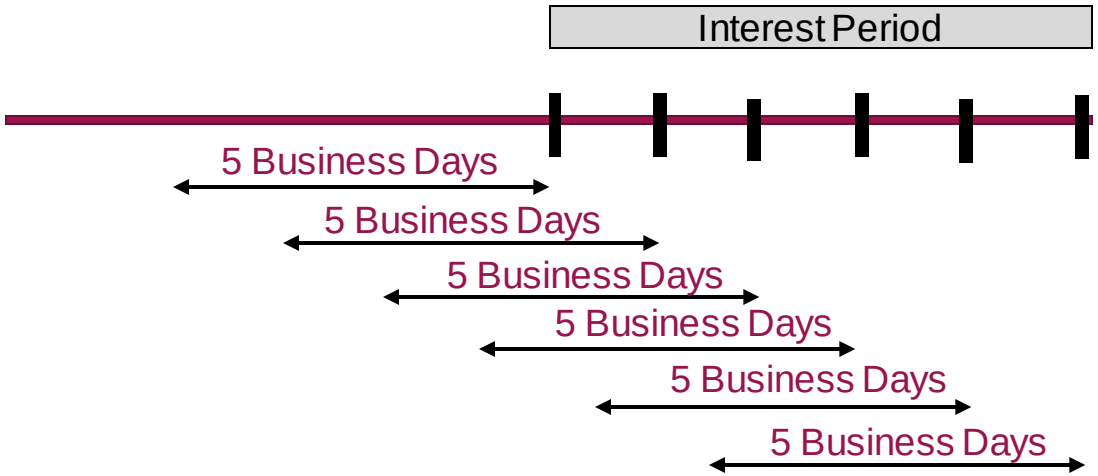
Lookback

Observation Shift

Lag Shift

- It creates a **Notional** rate for each banking day in the Interest Period
- No. of calendar days/Business days in the **Actual Interest** Period
- ARR will be observed for **each corresponding business day** ('x' lag days) from **each business day in Actual Interest Period**





Lookback with Observation Shift - Example

Loan Interest Rate	(SOFR + 110 bps) payable monthly	
Coupon Period	01-Dec-20	31-Dec-20
Observation Shift	5 Business days	
Observation Period	23-Nov-20	23-Dec-20

Compounding Factor (t) =

$$C.F(t-1) \times (1 + SOFR * n)$$

Where:
C.F= Compounding factor
SOFR = Daily SOFR rate
n = no. of days till next business day

Observation Dates	Daily SOFR Rates for Observation Dates	No. of Days in Observation Period	Compounding Factor	Product of Compounding Factor	Compounded SOFR Rate	Full Coupon Rate = (Compounded SOFR + 110 bps)
23-Nov-20	0.050000%	1	1.000001389	1.000069725	**0.08097%**	**1.18097%**
24-Nov-20	0.070000%	1	1.000001944			
25-Nov-20	0.080000%	2	1.000004444			
26-Nov-20	Holiday	0	1.000000000			
27-Nov-20	0.080000%	3	1.000006667			
28-Nov-20	Saturday	0	1.000000000			
29-Nov-20	Sunday	0	1.000000000			
30-Nov-20	0.090000%	1	1.000002500			
01-Dec-20	0.080000%	1	1.000002222			
02-Dec-20	0.080000%	1	1.000002222			
03-Dec-20	0.080000%	1	1.000002222			
04-Dec-20	0.090000%	3	1.000007500			
05-Dec-20	Saturday	0	1.000000000			
06-Dec-20	Sunday	0	1.000000000			
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.	.	.	.			
14-Dec-20	0.080000%	1	1.000002222			
15-Dec-20	0.090000%	1	1.000002500			
16-Dec-20	0.090000%	1	1.000002500			
17-Dec-20	0.090000%	1	1.000002500			
18-Dec-20	0.090000%	3	1.000007500			
19-Dec-20	Saturday	0	1.000000000			
20-Dec-20	Sunday	0	1.000000000			
21-Dec-20	0.090000%	1	1.000002500			
22-Dec-20	0.070000%	1	1.000001944			
23-Dec-20	0.060000%	1	1.000001667			

Lookback without Observation Shift (lag shift) - Example

Loan Interest Rate	(SOFR + 110 bps) payable monthly
Coupon Period	01-Dec-20 31-Dec-20
Lag Shift	5 Business days

Compounding Factor (t) =

$$C.F(t-1) \times (1 + SOFR * n)$$

Where:
C.F= Compounding factor
SOFR = Daily SOFR rate
n = no. of days till next business day

Coupon Dates	Interest Rate Date based on 5 Business day Lag	Corresponding Daily SOFR Rates	No, of Days in coupon period	Compounding Factor	Product of Compounding Factor	Compounded SOFR Rate	Full Coupon Rate = (Compounded SOFR + 110 bps)
01-Dec-20	23-Nov-20	0.050000%	1	1.000001389	1.000070002	**0.08129%**	**1.18129%**
02-Dec-20	24-Nov-20	0.070000%	1	1.000001944			
03-Dec-20	25-Nov-20	0.080000%	1	1.000002222			
04-Dec-20	27-Nov-20	0.080000%	3	1.000006667			
05-Dec-20	Saturday	NA	0	1.000000000			
06-Dec-20	Sunday	NA	0	1.000000000			
07-Dec-20	30-Nov-20	0.090000%	1	1.000002500			
08-Dec-20	01-Dec-20	0.080000%	1	1.000002222			
09-Dec-20	02-Dec-20	0.080000%	1	1.000002222			
10-Dec-20	03-Dec-20	0.080000%	1	1.000002222			
11-Dec-20	04-Dec-20	0.090000%	3	1.000007500			
12-Dec-20	Saturday	NA	0	1.000000000			
13-Dec-20	Sunday	NA	0	1.000000000			
.	.	.	.	.			
.	.	.	.	.			
.	.	.	.	.			
21-Dec-20	14-Dec-20	0.080000%	1	1.000002222			
22-Dec-20	15-Dec-20	0.090000%	1	1.000002500			
23-Dec-20	16-Dec-20	0.090000%	1	1.000002500			
24-Dec-20	17-Dec-20	0.090000%	4	1.000010000			
25-Dec-20	Holiday	NA	0	1.000000000			
26-Dec-20	Saturday	NA	0	1.000000000			
27-Dec-20	Sunday	NA	0	1.000000000			
28-Dec-20	18-Dec-20	0.090000%	1	1.000002500			
29-Dec-20	21-Dec-20	0.090000%	1	1.000002500			
30-Dec-20	22-Dec-20	0.070000%	1	1.000001944			
31-Dec-20	23-Dec-20	0.060000%	1	1.000001667			

Hedge effectiveness between Loans and Derivatives

if

Methodology used for **calculation of interest rates for loans**

≠

Methodology used for **calculation of interest rates for Swaps**

then

It reduces the effectiveness of the hedge

For hedging purpose, clients may prefer loans which are similar to the Derivative Methodology

6

ISDA IBOR Fallbacks

Protocol

Supplement

Derivative Contracts

- Currently, derivative contracts reference specific fallback rates as set out in the 2006 ISDA Definitions. These fallback rates under the 2006 ISDA Definitions typically require the counterparty that is the calculation agent to obtain quotes from major dealers in the relevant interdealer market.

- If an IBOR has been permanently discontinued (for e.g. the proposed phasing out of LIBOR rates), it is likely that major dealers would be unwilling and/or unable to give such quotes. It is also likely that quotes could vary materially across the market.

- The adjusted proposed ARR in the relevant currency would apply as a fallback following a permanent cessation of the IBOR in that currency.

- In order to ensure that fallbacks are incorporated in the derivative contracts, ISDA published the following documents on 23 October 2020:

    1. **2020 IBOR Fallbacks Supplement ("Supplement")**
    2. **2020 IBOR Fallbacks Protocol ("Protocol")**
    3. **Template Bilateral Documents**

Overview of Supplement and Protocol

SUPPLEMENT

(Supplement number 70 to the 2006 ISDA Definitions)

→ Updates the rate options set out in the 2006 ISDA Definitions.

→ New derivative contracts (both cleared and non-cleared) incorporating the 2006 ISDA Definitions from 25 January 2021 ("Protocol Effective Date") onwards will automatically incorporate the 2006 ISDA Definitions as amended by the Supplement.

PROTOCOL

1 → Enables ADHERING PARTIES to incorporate the terms of the Supplement in their existing/ legacy "Protocol Covered Documents". Amendments will be effective on the later of 25 January 2021 or the Protocol adherence date of the counterparty which adheres to the Protocol latest ("Implementation Date").

2 → NON- ADHERING PARTIES can apply the terms of the Protocol to their agreements by signing bilateral amendment agreements.

Protocol Covered Documents

For a document to be classified as a **'Protocol Covered Documents'** one of the following three criteria should be met:

i. A document (Master Agreement, Credit Support Document or Confirmation) should incorporate the 2006 ISDA Definitions or certain earlier ISDA definitions (i.e., the 2000 ISDA Definitions, the 1998 ISDA Euro Definitions, the 1998 Supplement to the 1991 ISDA Definitions or the 1991 ISDA Definitions) to incorporate the relevant rate options (each a "Covered Definition Booklet"),

ii. referencing an IBOR "as defined" in or with the meaning given in a Covered ISDA Definitions Booklet, or

iii. referencing an IBOR howsoever defined.

How to Adhere to the Protocol

- Currently there is no cut-off date to adhere to the 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 (or by any other suitable means).
  1) To adhere to the Protocol, market participants can go to the Protocols section of the ISDA website to generate and sign the adherence letter.
  2) The PDF can then be uploaded on the ISDA website.
  3) Once ISDA has accepted the adherence letter, it will send an email confirmation of adherence to the adhering party. Agents may adhere to the Protocol on behalf of their clients.

- The **Adherence Letter can be signed by any individual who has the legal authority** to bind the adhering institution. Each Adhering Party (subject to the type of ISDA member) is not required to submit a fee to ISDA if it submits its Adherence Letter prior to the Protocol Effective Date. If it 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.

For more information, please visit the ISDA website (https://www.isda.org/protocols/) or reach out to your Axis Bank Relationship Manager.

Possible Scenarios (ISDA Protocol)

1. For Clients/Counterparties who have outstanding IBOR linked exposures with Axis Bank (as on 25th January, 2021)	**Protocol needs to be signed or enter into Bilateral Agreement.** If Protocol is signed by both parties, no amendment is required in any of the documents (ISDA, CSA, and Confirmations) provided all are protocol covered documents.
2. For Clients/Counterparties who **do not** have outstanding IBOR linked exposures with Axis Bank (as on 25th January, 2021) but executed ISDA and CSA **before** 25th January, 2021	**Protocol needs to be signed or enter into Bilateral Agreement.** If Protocol is signed by both parties, no amendment is required in any of the documents (ISDA and CSA) provided all are protocol covered documents. What will be relevant is the date of the later of the two parties adhering to the Protocol. If the Protocol is signed all Counterparties who do not have outstanding IBOR linked transactions as on such date but executed ISDA and CSA before such date, no amendments are required to be entered into.

Possible Scenarios (ISDA Protocol)

3. For Clients/Counterparties who **do not** have outstanding IBOR linked exposures with Axis Bank (as on 25th January, 2021) but executed ISDA and CSA **after 25th January, 2021** (or) New clients/Counterparties who are executing ISDA **after 25th January, 2021**	**No action required** (Since ISDA, CSA, and Confirmations are referencing to 2006 Definitions)
4. Clients/counterparties who have existing ISDA agreements with Axis Bank and wanted to do new SOFR/ARR trades.	They can enter into SOFR trades without adhering to the Protocol, for the purposes of ensuring smooth LIBOR transition **they should make reference to the 2006 definitions under the confirmation in relation to such trades.**

ISDA IBOR Protocol Matrix

ISDA IBOR Protocol Matrix	LIBOR linked Derivative transactions entered **before** 25-Jan-2021 (outstanding beyond LIBOR cessation)	LIBOR linked Derivative transactions entered **on or after** 25-Jan-2021 (outstanding beyond LIBOR cessation)
ISDA executed **before** 25-Jan-2021	1 Protocol needs to be signed or enter into Bilateral Agreement.	2 If "**as revised from time to time**" is mentioned in relation to the 2006 ISDA Definitions, there is no need to adhere to the Protocol/enter into a Bilateral Agreement If not, Protocol needs to be signed or enter into Bilateral Agreement.
ISDA executed **on or after** 25-Jan-2021	3 For transactions executed before the Effective Date, with an ISDA Confirmation, the respective Confirmation **will have to be amended** to include reference to the 2006 ISDA Definitions, as amended and supplemented from time to time.	4 No action required

Protocol or Bilateral Agreement is required / confirmation to be amended

Protocol or Bilateral Agreement is required for **some** transactions

Protocol or Bilateral Agreement is **not** required

1 & 2 - ISDA reserves the right, in its sole and absolute discretion, upon at least thirty calendar days' notice on the "ISDA 2020 IBOR Fallbacks Protocol" section of its website at www.isda.org (or by other suitable means), to designate a closing date of this Protocol (such closing date, the "Cut-off Date"). After the Cut-off Date, ISDA will not accept any further Adherence Letters to this Protocol. So, it is in the interest of the counterparty to adhere to the Protocol as early as possible

3 - Since the ISDA is executed on or after 25 Jan 2021 (i.e. the "Effective Date"), as long as ISDA incorporates the 2006 ISDA Definitions by reference in the agreement, as amended and supplemented from time to time, there is no need to adhere to the Protocol or enter into a Bilateral Agreement for all transactions entered on or after the Effective Date.

4 - Provided that the ISDA/ Confirmation incorporates the 2006 ISDA Definitions by reference, as amended and supplemented from time to time

Thank You

AXIS BANK