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Growing Asia's Markets

IBOR Transition Series:
A Local Market Perspective

INDIA IBOR TRANSITION

(in collaboration with FIMMDA and IBA)

Co-hosts
FIMMDA
Nurturing Markets, Widening Horizons
Indian Banks' Association

Lead Sponsor
REFINITIV

Endorsers
FBIL FINANCIAL BENCHMARKS INDIA PVT LTD.
ICMA International Capital Market Association

Agenda:

Time	Session
10:00-10:10	**Welcome Remarks:** • **Mark Austen**, CEO, **ASIFMA** • **D.V.S.S.V. Prasad**, CEO, **FIMMDA** • **Sunil Mehta**, Chief Executive**, IBA**
10:10-10:30	**Keynote Address:** • **Dimple Bhandia**, General Manager, **Reserve Bank of India**
10:30-10:35	**ASIFMA Regional Update** • **Rebecca Weinrauch**, Executive Director – Head of Fixed Income, **ASIFMA**
10:35-10:50	**IBOR Transition: India Perspective** • **Kuntal Sur**, Partner and Leader, Financial Risk and Regulation, **PwC India**; Knowledge Partner on LIBOR Transition for IBA
10:50-11:05	**Benchmark Presentation** • **Rudra Narayan Kar**, CEO, **FBIL**
11:05-11:45	**Product Presentations** • **Jing Gu**, Head of Legal, Asia Pacific, **ISDA** • **Mushtaq Kapasi**, Managing Director – Chief Representative Asia Pacific, **ICMA** • **Pranav Sharma**, Partner, Financing, **Cyril Amarchand Mangaldas**

Agenda:

Time	Session
11:45-12:00	**Data and Infrastructure Preparedness: Practical Challenges of IBOR Transition** • **Rohit Mandhotra**, Risk Workflow Specialist, **Bloomberg L.P.**
12:00-12:30	**Banking Panel on Implementation/Conduct Issues** • **Saurabh Chhabra**, Co-head, Corporate Sales & Solutions Business, **Citi South Asia** • **Utkarsh Sharma**, Head of Foreign Exchange and Derivative Trading, **Deutsche Bank, India** • **Parul Mittal Sinha**, Managing Director - Head of Financial Market Trading, India and South Asia, **Standard Chartered Bank**
12:30-12:32	**Closing Remarks** • **Aniket Patni**, Regional Proposition Sales Director, **Refinitiv**
12:32-12:45	**Q&A**

Get Involved:

Asking a question anytime via the "Q&A" box on your tool bar

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CEO
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Keynote Address:

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General Manager
Reserve Bank of India

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ASIFMA Regional Update:

Rebecca Weinrauch
Executive Director – Head of Fixed Income
ASIFMA

Areas to cover:

- IBOR Transition Guide for Asia published by ASIFMA, ICMA, ISDA and APLMA, with contribution from Deloitte and Morgan Lewis.

- Survey of ASIFMA Members on external frictions yet to be resolved
- Regional education program: Singapore, Malaysia, Philippines, Thailand, Vietnam, Indonesia, and India

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IBOR Transition – India Perspective:

Kuntal Sur
Partner and Leader, Financial Risk and Regulation
PwC India; Knowledge Partner on LIBOR Transition for IBA

IBOR Transition – India Perspective

ASIFMA Event: India IBOR Transition

September 2020 | *Webinar*

IBOR - India Perspective

Recent Developments

- Definitive steps have been taken by Indian Banking Association (IBA) by forming a dedicated Working Group with sole purpose of identifying the IBOR impact on Indian markets
- The Working group is partnered by PwC and representatives from industry bodies like - FIMMDA, FEDAI, FBIL and Domestic banks, Foreign Banks, Legal firm, etc.
- Three work streams are formed to access the overall transition management & fall-back language, to finalise the methodology for Indian Benchmark (MIFOR) and Outreach to different stakeholders

Indian Benchmark

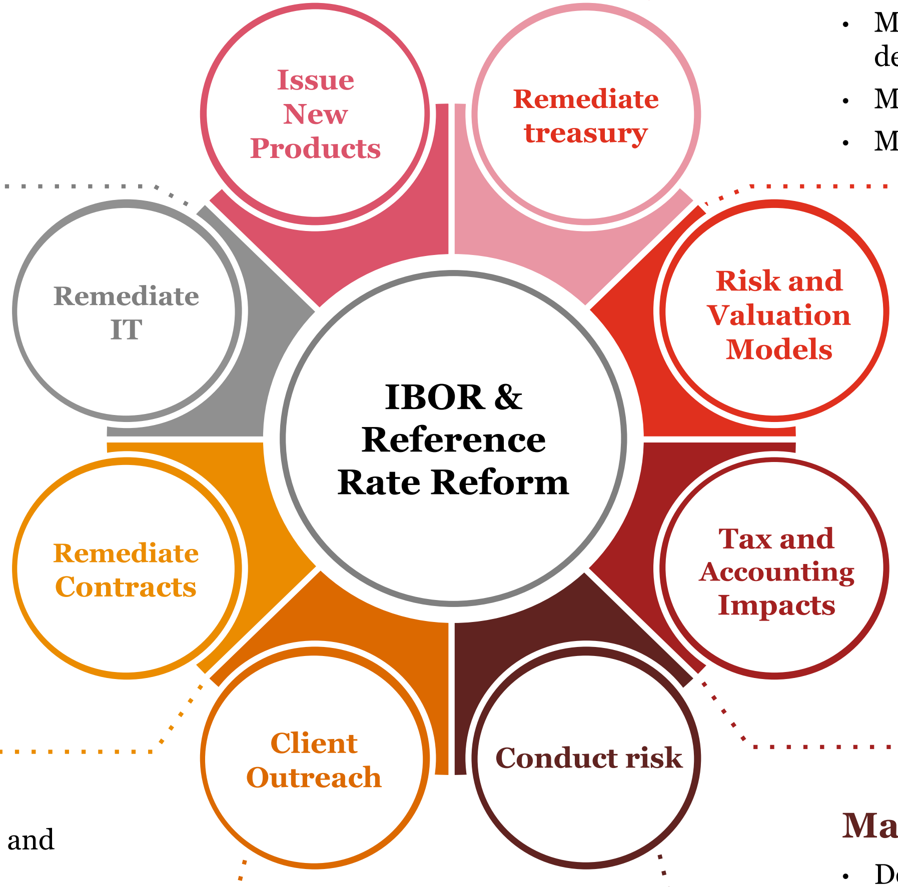
- Indian Benchmark - MIFOR, which is derived implicitly from the rolling forward premia in percentage term and the USD LIBOR for the relevant tenor will get impacted
- There will be impact in Inter-bank market on Derivative contracts which uses MIFOR as underlying
- Survey is conducted by PwC - IBA to the MIFOR market players for the alternate methodologies for adjusted and modified MIFOR

Actions by the RBI and IBA

- 'Dear CEO' letter issued to all the bank CEOs in India on Aug 2020
- Regular updates from IBA committee to RBI
- IBA held discussions with ISDA, one of the point was - how 'Adj MIFOR' can be part of ISDA (supplementary) protocol
- IBA is coordinating with FIBIL and CCIL on calculating 'Adj MIFOR' and to publish by the year-end

Banks are focusing on eight transition areas

Operational impacts from IBOR reform require change across functions, entities, systems and processes



Issue new products & pricings

- Establish transition strategy for new products
- Navigate new product approval
- Execute test trades and pilot issuances
- Shift to full-scale programs as soon as practicable

Remediate Tech infrastructure

- Identify impacted business processes and systems and typical lead time required for changes
- Determine changes required and dependencies
- Remediate internal systems and manage remediation of vendor systems

Remediate Contracts

- Perform contract discovery
- Analyze contracts
- Establish business rules, templates and playbooks for transition
- Execute repapering

Client outreach

- Determine engagement strategy with industry groups and trade associations
- Develop engagement approach with regulatory bodies e.g. consumer protection
- Coordinate customer outreach across businesses
- Evaluate impact of timeline differences across jurisdictions

Remediate treasury

- Manage of transition across cash instruments, debt and derivatives
- Manage transition of cross-currency positions
- Manage investment portfolios through transition

Risk and Valuation Models

- Identify, enhance and validate all models required to switch from IBOR to new rates
- Develop time series of data for risk and capital models
- Develop framework for simulation uncertainty of new rates for capital and funding requirements

Tax, Accounting and other impacts

- Determine impact of new hedge accounting standards
- Evaluate operational approaches to contract modification and potential tax impact triggered by modifications

Manage conduct risk

- Define internal and external communication strategies
- Establish clear policies, procedures and controls
- Maintain transparent and open communication with regulators

What are the Leading Banks doing?

I. Created an internal working group / committee with representations from – treasury, risks, business, finance, legal and technology

II. Monitoring currency pairwise exposures (direct and indirect) – in particular exposures beyond Dec 2021

III. Contract remediation – working on Fallback language – ARRC (Hardwired vs. Amendment Approach) and ISDA rules (waiting)

IV. Technology remediation – having discussions with treasury and CBS vendors on the proposed changes in modules

V. Based on RBI's "*Dear CEO*" letter - presenting to Internal executive committees / RMC of Board – on Transition Framework/ Policy

VI. Initial stages on drawing comprehensive road-map covering all aspects like contract remediation, data and tech, new product development etc.

VII. Monitoring the development of alternate benchmarks globally and strategizing accordingly

Thank you

Kuntal Sur

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Benchmark Presentation:

Rudra Narayan Kar
CEO
FBIL

Seminar on IBOR Transition

Update on MIFOR Transition

Rudra Narayan Kar

Financial Benchmarks India Pvt. Ltd

- Independent Benchmark Administrator in India in the areas of interest rates, foreign exchange and derivatives.
- Significant Benchmarks:
  - FBIL MIBOR
  - FBIL MIFOR
  - FBIL T-Bills Curve
  - FBIL Reference rates
  - FBIL G-sec valuation prices
  - FBIL SDL valuation prices

Background of MIFOR

- Mumbai Interbank Forward Offered Rate, a synthetic Rupee rate evolved during 1990s
- A poll based benchmark published daily at 5 PM after LIBOR is announced
- Published by Reuters(Refinitiv) with FIMMDA co branding it
- MIFOR Fixing largely used for valuation and settlement and references for IRS contracts
- Developed as a hedging tool for long term FCY/INR currency swap in the absence of an USD/INR basis swap market in India

FBIL MIFOR Methodology

- FBIL commenced publication of transaction based MIFOR from April 2018
- Data Source
- MIFOR Tenors
- Methodology – traded data and interpolation/ extrapolation technique

Need for Transition and Issues

- LIBOR may cease to exist beyond December 2021
- FCA may not mandate the panel banks to make submissions
- The ARRC has indicated the SOFR O/N rate may be the way forward
- The SOFR term Curve yet to emerge
- SOFR Compounded in Arrears is the preferred choice
- Determination of rates for legacy Contracts
- Developing New Reference Rate

International experience

- Need for a forward looking curve – Current initiatives
- Liquidity is the key challenge
- ARRC has asked for bids to determine Term Curve
- The case of SOR and SORA in Singapore
- The case of THBFIX

The India Initiative

- IBA Work Stream
- Looks at Transition of MIFOR
- Adjusted MIFOR
- Modified MIFOR

Adjusted MIFOR

- Three components for MIFOR curve construction
- SOFR compounded in Arrears
- Forward Premia a forward looking curve
- Spread to be derived from SOFR and LIBOR 5 year historical data.
- The Adjusted SOFR will be known at the end of the observation period.
- Forward premia will be known at the start of the observation period.

Determining the new Reference Rate

- Discussion in the IBA Work Stream
- Menu of benchmarks available with FBIL- MIBOR, MROR, T-Bills Curve and MIBOR OIS
- These rates represent domestic IBOR and do not establish the link between USD and INR interest rates
- Cannot replace MIFOR unless Currency basis market is established
- Modified MIFOR would depend upon the SOFR compounded in arrears and the USD/INR Forward Premia rate
- This raises issues about the benefits of a term curve, tax and accounting and other issues

MIFOR Transition Timeline

- Adjusted MIFOR Methodology to be ready by December 2020
- Testing of data in progress
- Methodology document and sample data for significant tenors to be made available to stakeholders for feedback shortly
- Incorporating changes in ISDA protocol under evaluation
- Issues involving Multilateral/ bilateral agreement among the banks in India being examined
- Making all efforts to be in readiness to meet the timelines.

Thank You

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Product Presentations:

Jing Gu
Head of Legal, Asia Pacific
ISDA

Mushtaq Kapasi
Managing Director –
Chief Representative Asia Pacific
ICMA

Pranav Sharma
Partner, Financing
Cyril Amarchand Mangaldas

September 22, 2020

Implementation of Fallbacks in Derivative Contracts

Jing Gu
Head of Legal, Asia Pacific
ISDA

Preparing for IBOR transition

Overview of alternative RFR identification

Working Groups in each jurisdiction have recommended robust, alternative RFRs to transition away from existing IBORs, the alternative RFR benchmarks are overnight, whereas the current use of IBORs is largely in term rates.

Jurisdiction	Working Group	Alternative RFR	Rate administration	Characteristics		
				Secured vs. unsecured	Anticipated publication date	Description
UK	Working Group on Sterling Risk-Free Reference Rates	Reformed Sterling Overnight Index Average (SONIA)	Bank of England	Unsecured	**Currently being published**	• Fully transaction-based • Encompasses a robust underlying market • Overnight, nearly risk-free reference rate • Includes an expanded scope of transactions to incorporate overnight unsecured transactions negotiated bilaterally and those arranged with brokers • Includes a volume-weighted trimmed mean
US	Alternative Reference Rates Committee	Secured Overnight Financing Rate (SOFR)	Federal Reserve Bank of New York	Secured	**Currently being published**	• Fully transaction-based • Encompasses a robust underlying market • Overnight, nearly risk-free reference rate that correlates closely with other money market rates • Covers multiple repo market segments, allowing for future market evolution
Europe	Working Group on Risk-Free Reference Rates for the Euro Area	European Short Term Rate (€STR)	European Central Bank	Unsecured	**Currently being published**	• Fully transaction-based • Encompasses a robust underlying market • Overnight, nearly risk-free reference rate • Includes a volume-weighted trimmed mean
Switzerland	The National Working Group on CHF Reference Rates	Swiss Average Rate Overnight (SARON)	SIX Swiss Exchange	Secured	Currently being published	• Became the reference interbank overnight repo on 25 August 2009 • Secured rate that reflects interest paid on interbank overnight repo
Japan	Study Group on Risk-Free Reference Rates	Tokyo Overnight Average Rate (TONA)	Bank of Japan	Unsecured	Currently being published	• Fully transaction-based benchmark for the robust uncollateralized overnight call rate market • The Bank of Japan calculates and publishes the rate on a daily basis, using information provided by money market brokers known as Tanshi • As an average, weighted by the volume of transactions corresponding to the rate

IBOR Fallbacks: ISDA's Work – Fallback Rates (1)

Relevant IBOR and corresponding floating rate options in 2006 ISDA Definitions		Fallback rate
GBP LIBOR	GBP-LIBOR-BBA GBP-LIBOR-BBA-Bloomberg	SONIA
CHF LIBOR	CHF-LIBOR-BBA CHF-LIBOR-BBA-Bloomberg	SARON
JPY LIBOR	JPY-LIBOR-FRASETT JPY-LIBOR-BBA JPY-LIBOR-BBA-Bloomberg	TONA
TIBOR	JPY-TIBOR-TIBM JPY-TIBOR-17096 JPY-TIBOR-17097 JPY-TIBOR-TIBM (All Banks)-Bloomberg	TONA
Euroyen TIBOR	JPY-TIBOR-ZTIBOR	TONA
BBSW	AUD-BBR-AUBBSW AUD-BBR-BBSW AUD-BBR-BBSW-Bloomberg	RBA Cash Rate
USD LIBOR	USD-LIBOR-BBA USD-LIBOR-BBA-Bloomberg	SOFR
HIBOR	HKD-HIBOR-HKAB HKD-HIBOR-HKAB-Bloomberg	HONIA
CDOR	CAD-BA-CDOR CAD-BA-CDOR-Bloomberg	CORRA
EUR LIBOR	EUR-LIBOR-BBA EUR-LIBOR-BBA-Bloomberg	€STR
EURIBOR	EUR-EURIBOR-Reuters	€STR

IBOR Fallbacks: ISDA's Work – Fallback Rate (2)

- A number of key Asian benchmarks are synthetic benchmarks derived by applying a forward FX curve to the USD LIBOR curve. When USD LIBOR is no longer available after the end of 2021, the sustainability of these benchmarks is in doubt:

- Key benchmarks are: **SOR** (Singapore); **THBFIX** (Thailand); **MIFOR** (India) and **PHIREF** (Philippines).

- Planning for the cessation of LIBOR is led by the respective administrators and regulators of these benchmarks. Some have replacement rates for new transactions identified and transition timelines in place (**SOR** and **THBFIX**), whereas others are yet to identify the replacement rates.

- ISDA IBOR Fallback Protocol and Supplement cover SOR and THBFIX
  - Index cessation event is triggered by the occurrence of an "Index Cessation Event" applicable to USD LIBOR
- Links to the National RFR Working Groups in the APAC region
  - https://www.bot.or.th/Thai/FinancialMarkets/Pages/ReferenceInterestAndEndOfUseLIBOR.aspx
  - https://www.abs.org.sg/benchmark-rates/about-sora
  - https://www.tma.org.hk/en_market_LIBOR.aspx
  - https://afma.com.au/ibor_transformation_working_grouphttps://www.isda.org/2020/05/11/benchmark-reform-and-transition-from-libor/
  - https://www.boj.or.jp/en/paym/market/jpy_cmte/index.htm/

IBOR Fallbacks: ISDA's Work – Implementation of Fallbacks in Supplement

Form of Amendments

- **Supplement to the 2006 ISDA Definitions**: To account for any permanent discontinuation of a relevant IBOR, amendments to the floating rate options in Section 7.1 of the 2006 ISDA Definitions for the relevant IBORs will take the form of:
  - a statement identifying the objective triggers that would activate the selected fallbacks (the trigger defined as 'Index Cessation Event'); and
  - a description of the fallbacks that would apply upon the occurrence of that trigger, which will be:
    i. the relevant RFR adjusted using methodologies to account for (A) the fact that the RFR is an overnight rate and (B) the various premia included within the IBOR; and
    ii. if the relevant RFR is permanently discontinued, one or more further fallbacks.

  Upon publication of the Supplement, all **<u>new</u>** derivative transactions entered into on or after the date of the amendments that incorporate the 2006 ISDA Definitions will include the fallbacks (counterparties will **<u>not</u>** have to take any additional steps).

IBOR Fallbacks: ISDA's Work – Implementation of Fallbacks in Protocol

Form of Amendments

- **ISDA 2020 IBOR Fallbacks Protocol:** ISDA will also publish a protocol to facilitate inclusion of the amended floating rate options (*i.e.,* the definitions with fallbacks) into **existing** derivative contracts entered into prior to publication of the Supplement.
  - Adherents to the Protocol will agree that derivative transactions that they have entered into *with other adherents* prior to publication of the Supplement will be based on the relevant amended floating rate options in the 2006 ISDA Definitions, notwithstanding when the transactions were entered into.
  - The Protocol will cover those ISDA master agreements, ISDA credit support documents and confirmations that:
    1. incorporate one of several ISDA definitional booklets;
    2. reference an IBOR as defined in or has the meaning in one of several ISDA definitional booklets; or
    3. reference an IBOR howsoever defined.
  - The Protocol will also extend to additional non-ISDA master agreements and credit support documents.
  - ISDA will also provide translation of the IBOR Fallbacks Supplement and Protocol for certain jurisdictions

IBOR Fallbacks: ISDA's Work – Triggers

- The fallbacks apply upon the ***permanent discontinuation*** of the relevant IBOR (based on pre-determined, objective triggers) and will be to the relevant alternative risk-free rate (RFR), subject to term and spread adjustments. The ***permanent discontinuation*** trigger is defined as "Index Cessation Event" in the non-LIBOR Rate Options.

- The fallbacks will not apply until the actual discontinuation of the relevant IBOR (if that is after the announcement date). This date is defined as the "Index Cessation Effective Date".

- For **LIBOR** in **GBP/CHF/USD/EUR/JPY**, the fallbacks apply upon the ***earlier to occur of (i) the permanent discontinuation or (ii) the non-representativeness (as determined by the UK FCA) (a so-called "pre-cessation" trigger)*** of LIBOR in the relevant currency (based on pre-determined, objective triggers) and will be to the relevant alternative RFR, subject to term and spread adjustments. The combined ***permanent discontinuation*** and ***pre-cessation*** trigger is also defined as "Index Cessation Event" in the LIBOR Rate Options.
    - The Index Cessation Effective Date for the pre-cessation trigger will be the date on which LIBOR in the relevant currency 'is no longer representative', which may either coincide with or be after the date of an announcement that it is 'no longer capable of being representative'.
    - Statement from the UK FCA regarding announcement of contractual triggers for LIBOR available at https://www.fca.org.uk/markets/transition-libor/libor-contractual-triggers

ISDA Safe, Efficient Markets

IBOR Fallbacks: Adjustments to Fallback Rates

Form of Adjustments

- The RFRs are adjusted (1) to reflect the fact that the IBOR is a term rate and (2) to factor in the embedded bank credit spread element of the IBOR.
- The current methodology is:
  - RFRs are based on the **compounded setting in arrears rate** and the **five year historical median approach to the spread adjustment**.
  - The **compounded setting in arrears rate** is the RFR observed over a period (generally equivalent to the relevant IBOR tenor) and compounded daily. The rate is adjusted whereby the observation period is backward-shifted to allow for the rate to be known prior to the relevant payment date.
  - The **five-year historical median approach to the spread adjustment** is based on the median spot spread between the IBOR and the term-adjusted RFR calculated over a static lookback period of five years prior to the Index Cessation Event. The spread adjustment will be added to the compounded setting in arrears rate (but will not be compounded itself).

Information about the relevant consultations and results, as well as test data and example calculations from Bloomberg, are available at **ISDA Benchmark Reform and Transition from LIBOR webpage** https://www.isda.org/2020/05/11/benchmark-reform-and-transition-from-libor/

IBOR Fallbacks: Adjustments to Fallback Rates

- **Bloomberg will publish (i) the compounded setting in arrears rate, (2) the spread adjustment and (3) the 'all in' fallback rate on a daily basis**
  - Publication will be on an indicative basis (i.e., 'as if' the fallbacks were triggered on the publication date)
    - Upon the occurrence of an 'Index Cessation Event' for the relevant IBOR, the spread adjustment will be fixed (but the indicative compounded setting in arrears rate and 'all in' fallback rate will continue to change on a daily basis). Contracts will continue to reference the relevant IBOR until the 'Index Cessation Effective Date' occurs.
    - Upon the occurrence of an 'Index Cessation Effective Date' for the relevant IBOR, contracts that continue to reference the relevant IBOR will reference the 'all in' fallback rate (which will include the spread adjustment that was set on the date of the 'Index Cessation Event' but with a changing compounded setting in arrears rate).
  - Rulebook for final methodology published April 22, 2020. Available at http://assets.isda.org/media/34b2ba47/c5347611-pdf/.
  - FAQs (to be updated from time-to-time) available at http://assets.isda.org/media/ddcb20e0/76dd3ab8-pdf/

IBOR Fallbacks: Key Dates

Bloomberg begins publication of indicative fallback rates via: • Bloomberg Terminal • Bloomberg Data License • Bloomberg's LIBOR Transition website (on a delayed basis)	Live as of July 17th
Launch of IBOR Fallback Supplement and IBOR Fallback Protocol	September 2020 (or later date after receive positive Business Review Letter from the US DoJ and similar comfort from other relevant competition law authorities), with 2-4 weeks' notice of launch date
Effectiveness of IBOR Fallback Supplement and IBOR Fallback Protocol	Late 2020 (or 2-4 months after publication)

IBOR Fallback Protocol: Adherence in Escrow

22 July – ISDA's Letter to National RFR WGs – ISDA IBOR Fallback Protocol

- ISDA will provide market participants with approximately 2-4 weeks' notice of the official launch date and later effective date.
- During this 2-4 weeks period, ISDA expects to facilitate a process whereby regulated entities and other key market participants can adhere to the IBOR Fallback Protocol 'in escrow' prior to the launch date.
- This adherence will be binding and complete but the adhering entity's name and information will not appear on the ISDA website until the official launch date (and the adherence letter will be 'deemed' delivered as of that launch date, not the earlier date on which it was submitted 'in escrow').
- Entities that adhere in escrow will do so via a private link that ISDA sends them. This link will take them to a page with the text of the IBOR Fallback Protocol and all related information, including full adherence mechanics. The final text of the IBOR Fallback Supplement and the IBOR Fallback Protocol will be available on www.isda.org during this time but the information in the private link (e.g., adherence mechanics, list of adherents) will not be publicly available.
- Wide take up of this 'adherence in escrow' process will result in a broad and comprehensive list of adherents at the time the IBOR Fallback Protocol launches and thereby indicate to the market an expectation of wide usage of the new fallbacks.
- RFR Working Groups in the UK, the US, the EU, Switzerland, Canada, Japan and Singapore have sent messages encouraging dealers and other firms with significant derivatives exposure to adhere to the protocol during the escrow period in order to promote adoption.

IBOR Fallbacks: Other Templates and Materials

- ‘Short form’ language for bilaterally incorporating the terms of the ISDA IBOR Fallbacks Protocol into agreements on a wholesale basis for purposes of bilateral adherence
- ‘Long form’ language setting out the language from the Attachment to the ISDA IBOR Fallbacks Protocol in full for purposes of bilateral adherence
- Template acknowledgment language for transactions entered into prior to publication of the IBOR Fallbacks Protocol
- Template wording for inclusion in (i) confirmations for new transactions or (ii) amendments to legacy transactions (on a counterparty-by-counterparty or transaction-by-transaction basis) between counterparties who adhered to the IBOR Fallbacks Protocol and/or bilaterally adopted the terms of the IBOR Fallback Protocols using either ‘short form’ or ‘long form’ language
    - Exclude transactions and agree to different fallbacks (e.g., to ‘perfectly match’ hedges)
    - Include enhanced Calculation Agent dispute provisions
    - Include additional documents and/or transactions
    - Exclude the pre-cessation fallbacks for LIBOR
    - Other templates as required/requested
- Potential supplemental amendments to fallbacks for non-linear derivatives (e.g., in arrears swaps, caps/floors, swaptions) – *currently seeking feedback on approaches*

CCPs – Transition to €STR and SOFR Discounting

€STR

- CCPs to switch discounting on all EUR-denominated products from EONIA to **€STR flat**.
- CCP Transition Date: 24 July 2020.
- CCPs to apply **cash compensation** payments to all accounts containing open EUR-denominated positions on the transition date.

SOFR

- CCPs to switch discounting on all USD-denominated products from Fed Funds to **SOFR**.
- CCP Transition Date: 16 October 2020 *
- CCPs to offer a combination of **cash compensation** (in respect of valuation change) and **swap compensation** (in respect of risk profile change) to all accounts containing open USD-denominated positions on the transition date.
- At certain CCPs, including LCH, client accounts will be able to elect for **cash-only compensation**, in lieu of swap compensation.
- An auction process will be used to close out unwanted compensating swaps and provide a reference for cash compensation calculations.

**subject to regulatory approval*

ISDA Collateral Agreement Interest Rate Definitions

> ISDA has published the Collateral Agreement Interest Rate Definitions.

> Incorporation of these into ISDA collateral agreements will enable parties to include standardised definitions (including triggers and fallbacks) relating to overnight interest rates.

> The triggers and fallbacks are designed to mirror those used in derivative transactions which reference the relevant overnight interest rates included in the Definitions.

> The first version contains collateral rate definitions of EONIA (Collateral Rate) and EuroSTR (Collateral Rate). Subsequent versions to contain SOFR (Collateral Rate) and other RFR definitions.

> Parties can:

  > (i) incorporate the most recent version of the Definitions prior to entry into the relevant agreement, or

  > (ii) incorporate the Definitions as amended from time to time, and elect to apply Interest Rate Override. Option to override the definition of either a specified interest rate benchmark (eg Interest Rate Override (EONIA)), or all benchmarks (Interest Rate Override (All Rates)), already included in the relevant agreement with the definition of that interest rate benchmark from the Collateral Definitions.

ISDA's 2018 IBOR Global Benchmark Transition Report – Steps Market Participants Can Take to Prepare for Transition

Assessment of IBOR Exposures

- Inventory of products linked to IBORs
- Dynamic quantification of net and gross exposure on and off balance sheet
- Calculate roll-off profiles ahead of 2019, 2020, 2021

Assess Impact of Permanent Cessation

- Review existing contracts and assess fallbacks
- Determine re-papering/client outreach
- Engage with industry working groups to enhance fallbacks
- Mobilize efforts to implement fallbacks

Transition Route Map

- Contribute to demand for, design of and trading in new RFR products
- Review relevant RFR WG publications, roadmaps etc
- Apply to participate in RFR WGs
- Determine required infrastructure and process changes
- Develop an implementation route map of key projects, milestones and ownership

Mobilization of an IBOR Transition Program

- Allocate responsibility to senior executive
- Federate governance structure
- Budget & resourcing
- Project objectives
- Stakeholder education

IBOR Fallbacks: Additional Information

- ISDA/Bloomberg/Linklaters IBOR Fallbacks Fact Sheet
- Understanding IBOR Benchmark Fallbacks
- Benchmark Reform at a Glance
- IBOR Transition Guide for Asia co-published by ISDA, ASIFMA, ICMA and APLMA

All of these materials, as well as additional information about ISDA's work to implement IBOR fallbacks and other benchmark reform initiatives, are available on the **ISDA Benchmark Reform and Transition from LIBOR webpage** at https://www.isda.org/2020/05/11/benchmark-reform-and-transition-from-libor/

ISDA Safe, Efficient Markets

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IBOR Transition Series:
A Local Market Perspective

INDIA IBOR TRANSITION

(in collaboration with FIMMDA and IBA)

Co-hosts

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Adoption of risk-free rates in bond markets

A lot of progress has already been made with the adoption of new RFRs in bond markets:

US Dollar:

- Over US$650 billion of SOFR-linked FRNs
- Mainly SSAs, financial institutions
- Conventions are evolving
- SOFR Index now available

UK Sterling:

- Approx. 190 SONIA-linked FRNs and securitisations totalling approx. £90 billion
- Mainly SSAs, banks and building societies, with a broadening base of investors
- Same market conventions so far – “lag” approach to weighting, also favoured by the loan market
- SONIA Index made available in early August – but only compatible with “shift” approach to weighting
- Work still to be done on conventions

New contracts referencing IBORs : fallbacks

The official sector in the US and the UK encourage use of risk-free rates instead of LIBOR in new bond issuance:

- If this is not possible, any *new contracts* referencing LIBOR and maturing beyond 2021 should contain robust fallbacks to risk-free rates
- For new USD LIBOR FRN contracts, the ARRC (*Alternative Reference Rates Committee*) in the US has produced a hardwired waterfall of fallbacks
- In the UK, fallbacks which address a permanent cessation or pre-cessation of IBORs have been used since mid-2017. These are typically benchmark and currency agnostic
- GBP LIBOR-referencing FRN and securitisation transactions have all but ceased

The conversion of Legacy Bonds

"Legacy Bonds" are bonds which reference LIBOR and are due to mature beyond the end of 2021, when LIBOR may no longer be available:

- It has been estimated that the ***global total*** of Legacy Bonds is more than US$800 billion equivalent
- Around 80% of that total references USD LIBOR
- In the UK market, estimates suggest around 700 ISINs for GBP LIBOR Legacy Bonds across approx. 430 deals
- If LIBOR is discontinued, many Legacy Bonds will *fall back to a fixed rate,* in accordance with the fallbacks drafted into the documentation at a time when permanent discontinuation of the rate would not have been anticipated
- This is unlikely to be aligned with the commercial intention of the counterparties at the time of the transaction

Options for Legacy Bonds – consent solicitation

The official sector in the US and the UK have continually stressed the increasing importance of transitioning Legacy Bonds away from LIBOR:

- Unlike derivatives, bonds are contracts between multiple parties and are freely tradeable, meaning the identity of the parties can change
- Bonds cannot be amended by way of adherence to an industry protocol
- Bonds usually contain provisions allowing the terms of the contract to be amended - this requires consent from bondholders by way of *consent solicitation*
- **Depending on the governing law of the bond, the consent threshold required for amendments of interest rate provisions may be high (e.g. 75% under English law, and 100% under NY law)**
- Amending bonds by way of consent solicitation is a voluntary process, with no guarantee of success. It is also time-consuming and administratively burdensome for issuers and bondholders
- But in the UK, a number of consent solicitations have been successfully undertaken by financial and corporate issuers

Options for Legacy Bonds - UK ‘tough legacy’ proposals

Some Legacy Bonds may fall into a ‘tough legacy’ bucket (i.e. cannot remove their reliance on LIBOR ahead of its anticipated discontinuation):

- A ‘Tough Legacy Task Force’ in the UK recommended that the UK Government consider legislation in May
- In June, the UK Government said that it would propose an amendment to the UK’s benchmark legislation to strengthen the FCA’s powers
- The FCA would be empowered to direct LIBOR’s administrator to change the methodology for LIBOR in certain circumstances (so-called “synthetic LIBOR”)
- Some details still to be worked through, including scope of the powers, what “synthetic LIBOR” will be, and how long “synthetic LIBOR” will continue to exist
- There is no guarantee that the FCA can or will exercise these powers, or that they will suit all Legacy Bonds. So the FCA and Bank of England are urging parties to continue with “active transition” in order to retain control of the economic outcome

Options for Legacy Bonds - Possible US legislative proposal

In the US, where consent solicitation is more problematic, the ARRC has set out a proposal for possible NY state legislation for USD-LIBOR contracts:

- For contracts with *no fallbacks*, ARRC-recommended SOFR fallback rate + spread adjustment would apply
- For contracts which *fall back to a LIBOR-based rate*, ARRC-recommended SOFR fallback rate + spread adjustment would apply
- For contracts where *an agent has discretion to choose the new benchmark rate*, the agent would have protection under a "safe harbour" if the ARRC-recommended SOFR fallback rate + spread adjustment is chosen
- Counterparties making conforming changes to documentation to accommodate the transition would also benefit from the safe harbour
- Parties would be able to mutually opt out
- It is not yet clear whether or when this will be enacted in NY law and how this would interact in practice with the UK 'tough legacy' proposals and EU proposals

Options for Legacy Bonds - EU Benchmark Regulation proposals

The European Commission has proposed amendments to the EU Benchmark Regulation to address the phasing out of benchmark rates:

- The proposal will empower the European Commission to designate a *statutory replacement rate* (taking account of relevant industry working group recommendations) to ensure that when a widely used reference rate (such as LIBOR) is phased out, it does not cause disruption to the economy or harm financial stability in the EU
- The statutory replacement rate will apply as a matter of law, thereby avoiding contractual conflicts
- The statutory replacement rate will only be available for financial contracts that reference the benchmark at the time this benchmark ceases to be published
- At the same time, market participants are encouraged to agree on a permanent replacement rate for all new contracts whenever feasible
- The European Commission is currently inviting feedback on the proposal until 6 October, after which more clarity should emerge on its scope and interaction with the US and UK proposals

Other options for Legacy Bonds

Other options for Legacy Bonds include:

- Buy-backs, exchange offers or other liability management exercises
- Allowing existing fallbacks to operate without amendment (as a result of which, many FRNs will become fixed rate unless the FCA is given, and exercises, powers to amend LIBOR methodology, as outlined above)

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cyril amarchand mangaldas
advocates & solicitors

IBOR TRANSITION - LOANS

Pranav Sharma

September 22, 2020

Cyril Amarchand Mangaldas

Character, Competence & Commitment

1

The journey so far.

IBOR Transition

- Announcement in July 2017 that LIBOR may not be available after 2021 – need to transition to risk free rate (RFR) or alternative reference rate for relevant currency
- Current recommendation is to use RFR - SOFR for USD and SONIA for £; EURIBOR for EUR may continue unchanged
- Working Group for £RFR recommended that new loans after Q3 2020 contain pre-agreed conversion terms
- Exposure draft incorporating rate switch provisions released by LMA earlier this month – not a recommended form
- Based on £RFR Working Group Conventions but recognizes absence of "established market or operational practice"
- £RFR Working Group Conventions have been applied across all currencies – and not only £

IBOR Transition

- US Alternative Reference Rates Committee has released separate conventions for SOFR in July 2020
- Switch over to RFR occurs either on a specified date or on a trigger event (intended to be objective e.g. public announcement by a regulator)
- Based on daily compounding RFR for relevant period in arrears and five days lookback without observation shift
- Interest calculated as per existing term rate until switch over – if this occurs in the middle of an interest period
- Assumes there is no change in margin at switch – but allows parties to agree to credit adjustment spread

2

ECB Policy.

ECB Policy

- All-in-cost construct has to be revised – currently, benchmark rate definition refers to LIBOR or any other IBOR
- Query if the caps need to be/will be revised?
- Consent of AD category 1 bank
- Refinancing of ECBs – condition that new ECB must be cheaper than the old one

3

Transition – issues and likely challenges.

Issues and likely challenges

- Break Costs
- Market Disruption
- Prepayments
- Certain existing facility agreements will have to be amended or refinanced
  - consent threshold to be considered – all lenders?
  - other than lenders, who all need to consent? Guarantor? ECA?
  - impact on guarantees and security documents?
  - impact on hedging arrangements?
  - operational matters – corporate authorisations? Stamping and registration?

Issues and likely challenges

- Switch from look-forward to look-back rates could impact certain aspects of lending transactions
- Trust & retention account or escrow agreements
- Sponsor support or other arrangements to support cash flows in structured lending transactions
- Amendments likely to require lenders' consents – especially in more complex funding structures
- Loans raised by offshore subsidiaries or JVs of Indian companies - impact on guarantee given by the Indian company?
- Deal execution may take longer given current levels of market awareness – impact on timelines for new transactions

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Data and Infrastructure Preparedness: Practical Challenges of IBOR Transition:

Rohit Mandhotra
Risk Workflow Specialist
Bloomberg L.P.

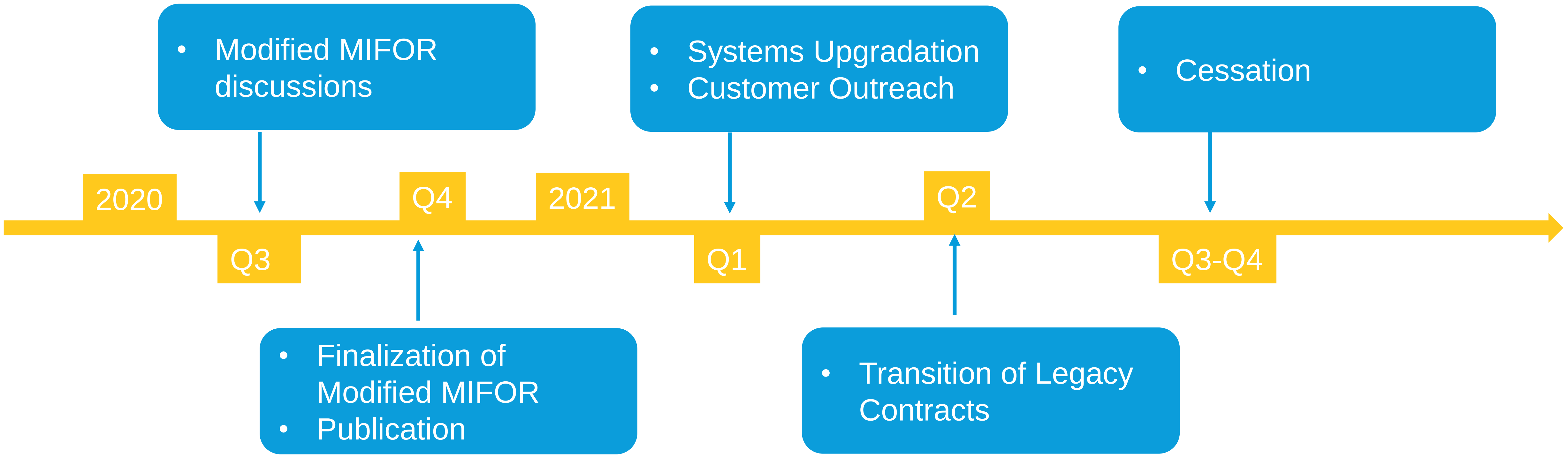
LIBOR Transition

Data and Infrastructure Viewpoint

Rohit Mandhotra
Risk Workflow Specialist
South Asia, Bloomberg L.P.
rmandhotra8@bloomberg.net

22nd September, 2020

The clock is already ticking…



Identify Overall Requirements for Cash Transition

Data-sets specific questions

- How and where to locate information on fallback provisions for cash products?

Assess readiness by considering

- For legacy Libor trades: if you don’t get covered by the protocol then do you need bilateral negotiations? How will a supplement to the protocol help ?
- By when do I need to be ready with a “Fair Value Analysis”?
- Is my Core Banking System ready to book new “Modified MIFOR/RFR based Loans” ?
- Market participants should identify susceptible fallback provisions as they will likely change in the future. They should also proactively monitor fallback languages incorporated in similar bond issuance for references.

Identify Overall Requirements for Derivatives Transition

Data-sets specific questions

- What new data sets are required as we transition to the new RFRs?
- How will RFR data evolve as liquidity shifts?
- Will term rates be available and what if not? How do I build curves?

Assess data in systems readiness by testing the following:

- Updated analytical models and scenario analysis across enterprise systems
- For trades referencing the new RFRs: capture all necessary attributes related to the new RFRs (e.g. compounding conventions, index lag / lockout) and ensuring all pricing, risk and valuation models work correctly.
- Front Office, Finance, Risk, Operations and Admin.

Planning for Transition

1. Business and Front Office

- Position/product inventory
- New curve construction & risk management change
- Repapering legacy contracts

Other considerations:

- Identify business lines in scope
- Economic sensitivities
- Client outreach and communications

2. Operations

- Collateralization/ management
- PAI
- Settlement/ cash flow
- Confirmations

3. Contracts

- Identification of all contracts
- Fall-back provisions

Other considerations:

- Renegotiating/ rewriting legacy contracts
- Legal consent & legal/ statutory obligations
- Standard documentation (e.g. ISDA and FIA)

4. Compliance

- Different regulatory requirements/ treatment of RFRs across jurisdictions

Other considerations:

- Regulatory tracking and impact

Impact Assessment – Where to Begin

5. Treasury

- ALM Internal funding
- Changes to issuance and hedging programs
- Transfer pricing implications

6. Valuations and Market Risk

- Valuation impacts (e.g. term structure curves/ market value/ secured vs unsecured)
- Risk management (hedging)
- Models' review & market risk sensitives
- Price testing

Other considerations:

- Assurance & QA of risk systems

7. Accounting and Finance

- Hedge accounting/ effectiveness
- Forecast transactions
- Impact on discounting

Other considerations:

- Differences in tax treatment/ payments due
- Modification accounting

8. IT and Infrastructure

- Adjusting relevant support systems (e.g. trade capture, payment systems & inter-company funding arrangements)

Other considerations:

- Technology enhancements
- Infrastructure impact mapping

Data and Infrastructure - Quantify Valuation Impact in Libor Transition

Preparation required across all asset classes: cash, derivatives, and loans

Data

ISDA

- ISDA Rule Book & Technical notes

Fallback

- ISDA-BISL
- Fallback, Spread Adjustments and Adjusted Rates

Fallback Language

- Daily refreshed fallback language Data for 154,000 cash securities
- Loans

Data

- Reference Data
- RFR Benchmark Data
- RFR Interest Rate Curves
- Where is LIBOR used

Infrastructure

Risk Systems

- CCP PAI from Fed Funds to SOFR (Oct 2020)
- Migration of Bilateral CSA
- LIBOR Transition analysis
- Derivative Structuring

New Calculations

- RFR Loans Calculator

Country Updates

- Risk Free Rate Solutions

Analytics

- Derivative Structuring of RFR Instruments

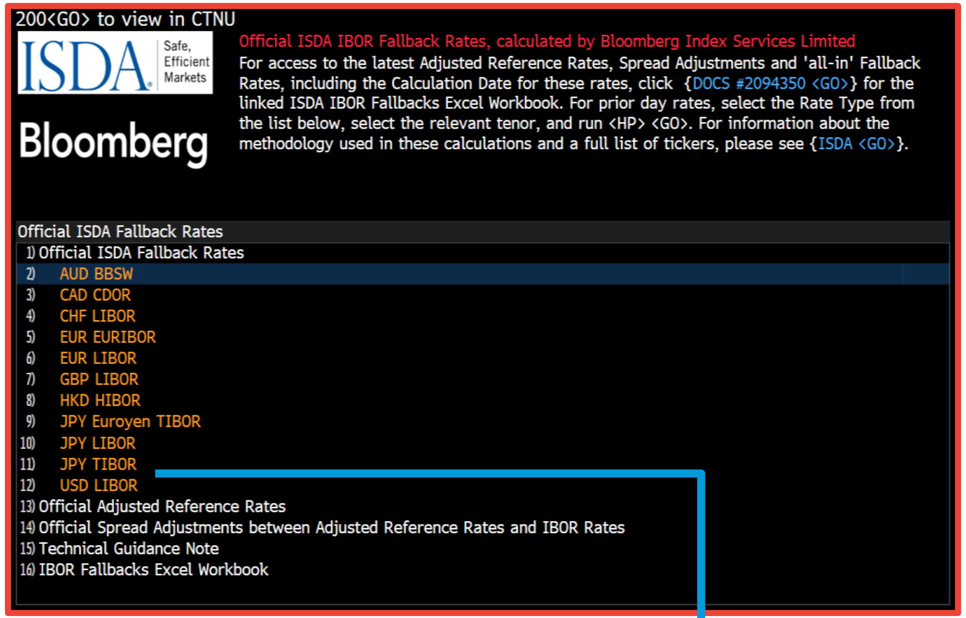
Electronic Trading

- Electronic Execution for RFR Derivatives

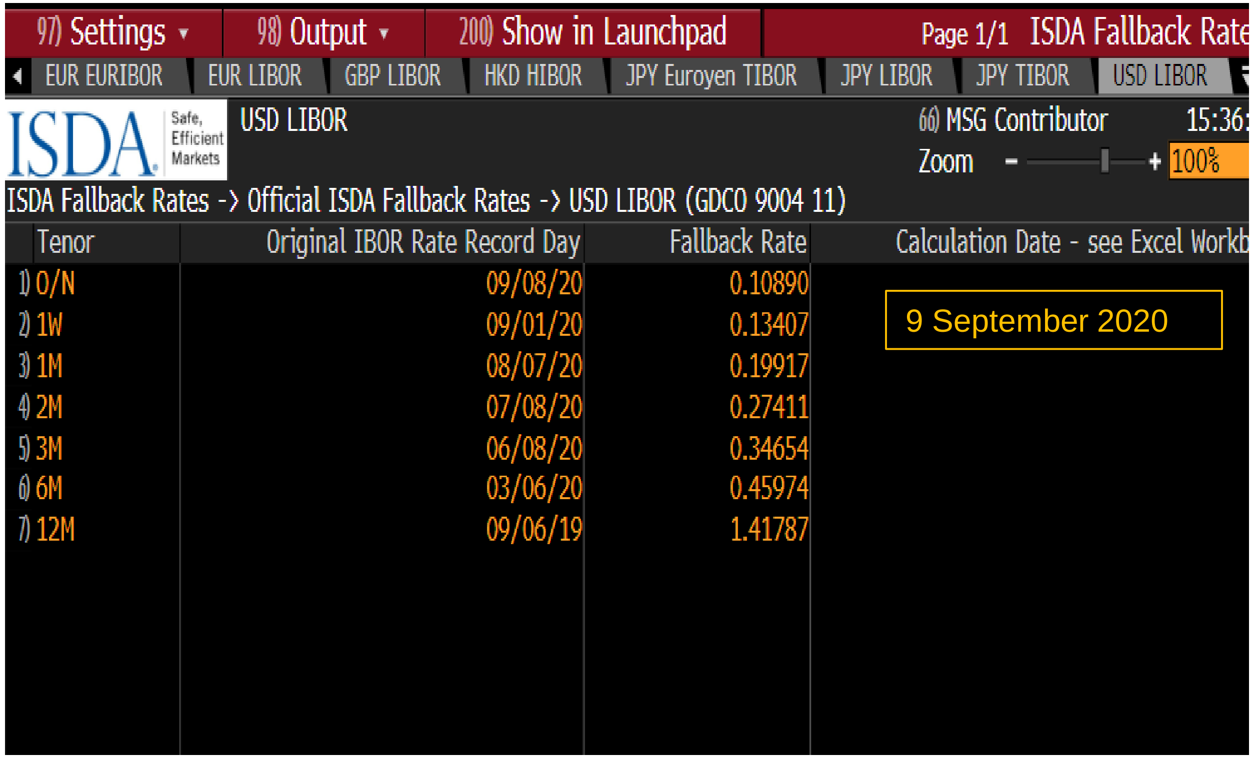
RFR Adoption

- FRN Issuance
- Loans Issuance
- RFR OTC Traded

Available Today: ISDA Fallback Data



- Official ISDA IBOR Fallback Rates, calculated by Bloomberg Index Services Limited. Visit FBAK<GO> or https://www.bloomberg.com/professional/solution/libor-transition/



- Standardized fallback language developed by ISDA for derivatives contracts is a positive step, offering the industry certainty.

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Summary: Benchmark Transition

1. Data

- Fallback data for derivatives & cash fallback language
- Modified MIFOR curve and term rates?
- Accuracy, compliance of data used in models and compliance
- Implement, test and production

2. Infrastructure. Inventory & Systems

- Cessation scenarios and impact analysis
- Handle multi curve regime and RFR compound factors, coupons and calculations
- PAI and CSA repapering
- Transition implementation planning

3. Communication

- Strategy based on assessment of legal and operational options
- Client communication and disclosures
- Continuous engagement with clients on risk, plans, preferences
- Industry discussions and client participation

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Thank You

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Banking Panel on Implementation/Conduct Issues:

Saurabh Chhabra
Co-head, Corporate Sales & Solutions
Citi South Asia

Utkarsh Sharma
Head of Foreign Exchange and Derivative Trading
Deutsche Bank, India

Parul Mittal Sinha
Managing Director - Head of Financial Market Trading, India and South Asia
Standard Chartered Bank

Utkarsh Sharma
Head of Foreign Exchange and Derivative Trading
Deutsche Bank, India

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Closing Remarks:

Aniket Patni
Regional Proposition Sales Director
Refinitiv

LIBOR Transition
<500 days to Dec 2021

22 Sep, 2020

Ever Evolving content for LIBOR Transition

<IBOR> Transition App in Eikon

						OIS (Underlying based on RFR rate)					
Currency	**IBOR Instrument**	**RFR Instrument**	**RFR Instrument Code**	**RFR Publication time (Local)**	**Example Fallback RIC**	**Refinitiv Composite**	**Specialist**	**OIS Zero curve**	**Term Rates**	**Compound Index**	**Futures**
USD	LIBOR USD	SOFR	USDSOFR=	08:00 EST/EDT	USDONFSRF=ISDA		USDSROIS=TWEB, RCM, TRDL, SX, TPSR, TRHK	0#USDSROISZ=R		.SOFR, SOFR1MAVG=, SOFR3MAVG=, SOFR6MAVG=	0#S1R: , 0#SRA:
GBP	LIBOR GBP	SONIA	SONIAOSR=	09:00 London Time	GBPONFSRF=ISDA	GBPOIS=	GBPOIS=ICAP, TTKL, TWEB, TRDL, MBGL	0#GBPOISZ=R	GBPTRR=RFTB	.SONIA	0#SON:
CHF	LIBOR CHF	SARON	SARON.S	18:00 CET	CHFSNFSRF=ISDA	CHFOIS=	CHFOIS=ICAP, BGCP, TWMK,	0#CHFOISZ=R		.SAR1MC, .SAR3MC, .SAR6MC	0#SARON:
JPY	LIBOR JPY	TONA	JPONMU=RR	10:00 JST	JPYSNFSRF=ISDA	JPYOIS=	JPYOIS=ICAP, SMKR, YMPR, TKFX	0#JPYOISZ=R	JPYTRR=		
AUD	BBSW	RBA Cash Rate	AUCASH=RBAA	09:00 AEST/AEDT	AU1MBAF=ISDA	AUDOIS=	AUDOIS=ICAA, SMKR, TTKA, BGCP, FMD	0#AUDOISZ=R			
CAD	CDOR	CORRA	CORRA=	09:00 ET	CA1MBAFIXF=ISDA	CADOIS=	CADOIS=ICAP, SMKR, FMD, GCMN, TRDL	0#CADOISZ=R			0#CRA:
EUR	EURIBOR	€STR	EUROSTR=	08:00 CET	EURIBORSWDF=ISDA	EURESTOIS=	EURESTOIS=ICAP, TRDL, BGCP, TPEU	0#EURESTOISZ=R			0#EON:
HKD	HIBOR	HONIA	HONIA=	17:00 Hong Kong Time	HIHKDONDF=ISDA	HKDOIS=	HKDOIS=TRHK, PREA, NITC				

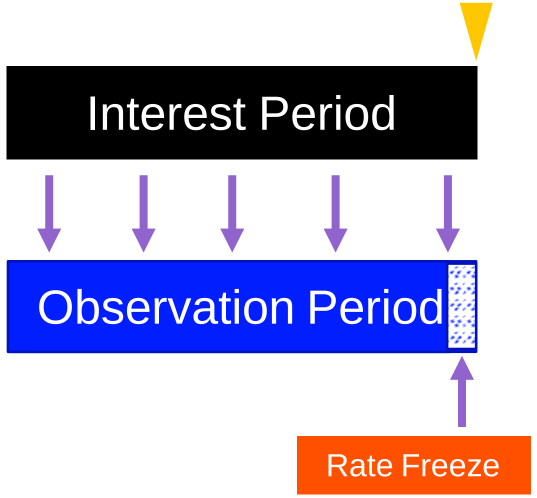
Solutions for Loan/Bond markets

Compounding Approaches, until term structure for RFR evolves

- Based on the type of cash product or derivative, there could be multiple ways to put in a payment structure
- Key Decision variables : What is the Observation Period ? What is the Interest Period ? What is the lag / lockout ?

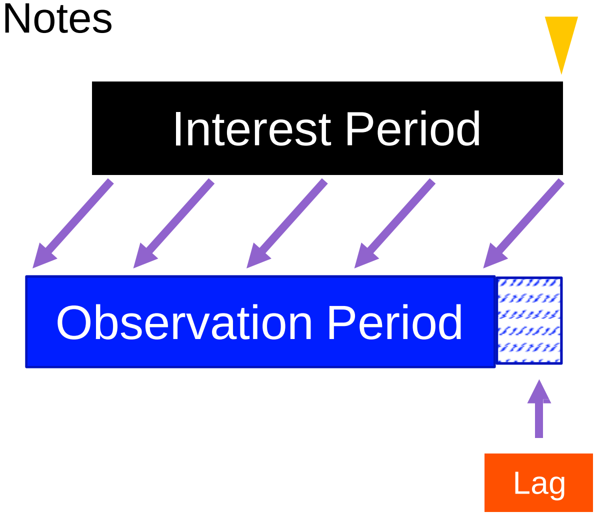
Payment Delay with Lockout

- Interest Rate value frozen a few days before the payment date
- Floating Rate Notes (2-5 days)
- SOFR-referenced Floating Notes



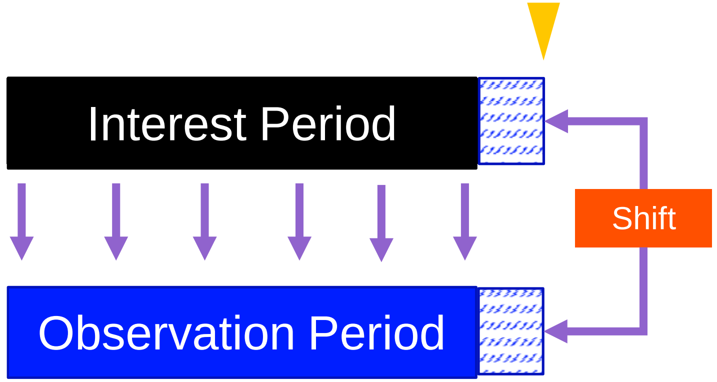
Lookback

- Interest Rate value lagged by a certain number of business days
- Standard Lag is 5 business days
- SONIA/SORA-referenced Floating Notes



Backward Shift

- Interest Rate values and Interest Period is shifted backwards
- Standard Shift is 5 business days
- Similar to OIS market conventions

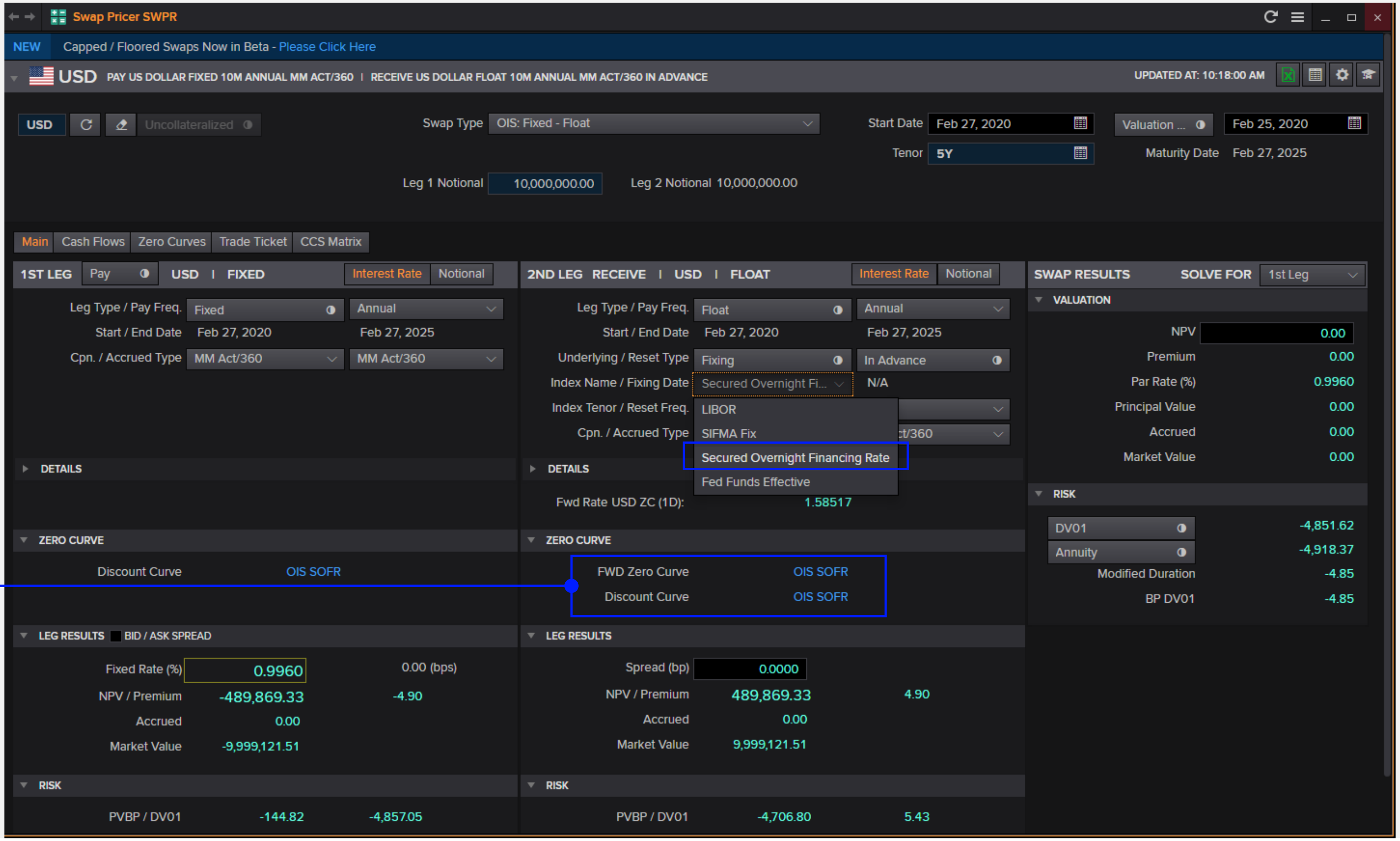


Payment Date

Solutions for derivatives

Price new RFR based derivatives and quantify the impact of transition

Use new RFR OIS Zero Coupon based Curves in Calculators



Click the Curves in Zero Curve and change to OIS SOFR (USD), €STR (EUR) or SONIA (GBP)

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A big thank you to all the speakers, panelists and participants today , please wait for Q&A

Q&A

Thank you for attending!

We hope to see you at our next event:

ASIFMA Virtual Event: Evolving Cyber Landscape in Light of COVID-19 – Managing the Impact

Tuesday, 13 October 2020

11:00AM – 12:15PM (HKT/SIN)

www.asifma.org/events

Tan Yeow Seng
Chief Cybersecurity Officer
Monetary Authority of Singapore

Brian Hansen
Executive Director, Asia Pacific
Financial Services ISAC

… and more speakers to be confirmed

www.asifma.org/events