CIBC MELLON

LIBOR Transition and Readiness Overview

JANUARY 2021



The Transition Continues

Despite the impacts of COVID-19, LIBOR transition deadlines remain largely unchanged. Around the world, regulators, national market authorities and market participants are continuing to work in close coordination to refine the functioning of new alternative reference rates (ARRs) in the context of both cash and derivatives products. While there is still a significant way to go, the fundamentals of the transition are in place. Adoption of ARR-indexed products is gaining traction and we are entering a more intense phase of the transition before the expected cessation of LIBOR.

Considerable activity has already taken place in Canada, the U.S. and across Europe and we are now seeing increased activity in other parts of the world, especially across the Asia Pacific region. We continue to be very active both with changes to our own systems and processes and in supporting clients through the transition.

This update includes: a summary of recent market developments, an overview of the recent progress we have made in preparing for the transition, a reminder of the resources available for clients and a description of the key milestones prior to the end of LIBOR.

How our global enterprise has been preparing for the LIBOR transition

CIBC Mellon, alongside its parent company, BNY Mellon, is currently preparing for the LIBOR transition at an industry level, across our organization and with our clients in a dedicated program incepted in mid-2019. To date, we have successfully:

- Updated our fund accounting platforms to support alternative reference rates (ARRs).
- Migrated our EUR deposit rates to €STR in July 2020, ahead of the recommended discontinuation planned for January 2022.
- Transitioned from EONIA to €STR for all cleared EUR denominated products. Engaged with and informed clients of the impact to NPV and PAI for EUR trades, and compensating fees issued by clearing houses to offset this change.
- Transitioned from EFFR to SOFR for all cleared U.S. dominated products.

OPERATIONAL AND TECHNOLOGY READINESS

CIBC Mellon is preparing to address its operating model and technology implications to enable a successful transition through system enhancements. However, additional enhancements will be required to address the latest market developments, as well as tools to enable the transition itself. The system changes have gone hand-in-hand with adjustments to our internal model inventory.

Meanwhile, many of the procedures around operationalizing the relevant fallback language need to be further discussed in the market. We will continue to work together with our parent company, BNY Mellon, to understand the implications of these market developments.

ACCOUNTING STANDARDS AND PROCESSES

CIBC Mellon's LIBOR program has delivered new capabilities to support the transition away from LIBOR linked assets to ARR-indexed assets including data capture, calculations and data dissemination enhancements across various accounting applications and in a variety of markets.

Our fund accounting systems have been upgraded with the relevant security data elements in support of ARR calculation methodologies.

PRODUCT IMPLICATIONS

In some instances, where there may be operational changes to clients' existing processes, we will engage clients directly via their Relationship Managers to ensure they are fully supported in transitioning to the new ARRs.

What are SOFR, SONIA, CDOR, CORRA and €STR? What is 'fallback language' in the context of the benchmark reform? What progress has been made on adoption of alternative rates across the APAC region?

The answers to these and other questions can be found in our Frequently Asked Questions document on our website.

INDUSTRY ENGAGEMENT

CIBC Mellon remains actively engaged through a larger program managed by BNY Mellon's engagements with various industry bodies that are developing solutions to help smooth the transition from LIBOR to alternative benchmarks.

These include:

- Canadian Alternative Reference Rate (CARR) working group
- International Swaps and Derivatives Association (ISDA)
- Alternative Reference Rates Committee (ARRC)
- The Bankers Association for Finance and Trade (BAFT)
- UK Working Group on Sterling Risk-free Reference Rates (UK RFR)
- The International Capital Market Service Association (ICMSA)

How we are engaging with our clients

1. Support for specific transition events

Over the past few months there have been two significant milestones in the LIBOR transition journey. For each of these events, BNY Mellon executed a comprehensive plan in order to support and manage all aspects of the change:

EUR discounting regime transition to €STR

On July 27, 2020, EONIA was replaced by €STR on all cleared EUR denominated products. The change affected Net Present Values (NPVs) and Price Alignment Interest (PAI) for EUR trades. There was a compensating fee payment issued by the clearing house to offset this change ensuring the funds remained neutral.

For further information please refer to our €STR Discounting Factsheet.

Cleared USD swap products transition to SOFR

On October 16, 2020, Central Counterparty Clearinghouses (CCPs) converted discounting and PAI/PAA from Effective Federal Funds Rate (EFFR) to the U.S. Secured Overnight Financing Rate (SOFR) on all outstanding cleared USD-denominated swap products.

For further information please refer to our Managing Central Counterparty Discounting. through the ARR Transition information sheet.

2. Keeping our clients informed

We encourage clients to visit our website for additional resources and continue reading CIBC Mellon's Straight Talk publication for updates.

- Transition and Readiness Overview: LIBOR, CDOR, CORRA and more
- CIBC Mellon Straight Talk

Our parent company, BNY Mellon, has also produced some resources you may find informative:

- Global ARR initiatives: beyond the big five
- Bracing for Impact: What's Complicating the Push to End LIBOR
- The Challenges of Losing LIBOR

Preparing for the transition

Given the broad use of LIBOR across many financial products, any potential cessation of publication could have a financial and operational impact. Market participants should seek to understand how this transition may affect them. This may be achieved by taking some initial steps, including:

- Identifying which products are linked to LIBOR.
- Documenting the amount of exposure products have to LIBOR, including those in contracts which mature after the end of 2021: such a review may include specific currencies and indices, notionals, risk, transactions numbers, maturity profiles, product types and counterparty concentration.
- Examining and, if necessary, amending existing and new legal contracts to ensure there is robust fallback language in place that sets out the steps to be taken, or the interest rate to be applied, in case LIBOR is permanently unavailable.
- Producing an inventory of relevant systems used (e.g., trade booking, risk systems) that may be affected should LIBOR no longer be published and consider making changes that will allow those systems to support ARRs.
- Ensuring appropriate documentation is in place to adequately disclose or mitigate risks associated with the discontinuation of LIBOR.



KEEPING UP TO DATE WITH THE LATEST NEWS ON LIBOR TRANSITION

You can follow these links for the latest news and other resources from some of the key industry participants in LIBOR transition:

Bank of Canada

Refinitiv (CDOR administrator)

Alternative Reference Rates Committee (ARRC) (US)

<u>Loan Syndications & Trading</u> <u>Association (LSTA) (US)</u>

Mortgage Bankers Association (MBA) (US)

International Swaps and Derivatives Association (ISDA)

The Bankers Association for Finance and Trade (BAFT)

Bank of England (UK)

Financial Conduct Authority (UK)

<u>Loan Market Association (LMA)</u> (EMEA)

IFRS (International Financial Reporting Standards) – IBOR Reform and its Effect on Financial Reporting (Phase 1)

IFRS (International Financial Reporting Standards) – IBOR Reform and its Effect on Financial Reporting (Phase 2)

Asia Pacific Loan Market
Association

<u>Asia Securities Industry and</u> Financial Markets Association

What to expect over the coming months

A summary of some expected changes for the key benchmark rates

GBP transition to SONIA

- Publication of provisional live term SONIA
- SONIA-indexed products become widely available
- Clear and robust contractual fallback arrangements in all new and refinanced LIBOR-linked loan products ahead of conversion
- Issuance of LIBOR-indexed loans expiring after 2021 will cease
- Reduction in legacy GBP-LIBOR GBP stock

https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/rfr-working-group-roadmap.pdf?la=en&hash=92D95DFA056D7475CE395B64AA1F6A099DA6AC5D

USD LIBOR Transition to SOFR

- RFP to administrators for SOFR spread adjustments
- USD derivatives quoted in SOFR
- No new LIBOR loans, FRN, derivatives trades
- ARRC recommend forward-looking term SOFR reference rate
- Banks no longer compelled to make LIBOR submissions

https://www.newyorkfed.org/medialibrary/microsites/arrc/files/libortimeline.pdf

SIBOR transition to SOR and SORA

- Launch of SORA-indexed syndicated loans
- Publication of
 - market guidance on fallbacks across cash markets
 - customer segmentation study on usage of benchmark rates
 - market guidance on cessation date for new SOR originations and transition mechanisms
- The transition legacy of one-month and six-month SIBOR contracts to SORA should occur after the derivatives market has moved from the swap offer rate (SOR) to SORA

https://www.abs.org.sg/images/default-album/sc-sts-transition-roadmap-(sep-2020).png

JPY LIBOR transition to TONAR

 Creation of a TONAR term structure based on futures or overnight index swap transactions

HONIA

- Expectation by Hong Kong Monetary Authority that Authorized Institutions (Als) should
 - from January 1, 2021, be in a position to offer products referencing ARRs
 - from January 1, 2021, include adequate fallback provisions in all newly issued LIBOR-indexed contracts that will mature after 2021
 - by June 30, 2021, cease to issue new LIBOR-linked products that will mature after 2021

https://www.hkma.gov.hk/media/eng/doc/key-information/guidelines-and-circular/2020/20200710e1.pdf?732

Appendix

1. A ROUND-UP OF KEY DEVELOPMENTS AND ANNOUNCEMENTS FROM AROUND THE WORLD

June 2020	The Alternative Reference Rates Committee publishes recommended best practices	The best practices are intended to clarify timelines and interim milestones that will minimize market disruption and support a smooth transition to their recommended alternative reference rate, SOFR.
	Bank of England sets out its position on provision of compounded SONIA	Given near universal support from respondents to an earlier discussion paper, the Bank confirmed it would publish a daily SONIA Compounded Index.
	Bank of Canada becomes administrator of Canadian Overnight Repo Rate Average	The Bank of Canada is now the administrator of the Canadian Overnight Repo Rate Average (CORRA) and posted the first rate calculated using an improved methodology on June 15, 2020.
	CARR welcomes MX's listing of new Three-Month CORRA Futures	The Canadian Alternative Reference Rate working group (CARR) welcomed Montréal Exchange's (MX) notice that it will launch its new Three-Month Canadian Overnight Repo Rate Average (CORRA) Futures contract for trading on Friday June 12, 2020.
July 2020	Bank of England and New York Fed deliver joint webinar: 'LIBOR : Entering the end game'	The speeches by <u>Andrew Bailey</u> , for the Bank of England and <u>John Williams</u> , for the New York Fed to explain that the transition away from LIBOR is still largely on track and remind us that there is a great amount of work to do.
	The Alternative Reference Rates Committee launches <u>the SOFR</u> <u>Summer Series</u>	A series of webinars designed to educate the public on the history of LIBOR; the development and strengths of the Secured Overnight Financing Rate (SOFR), the ARRC's recommended alternative to U.S. dollar (USD) LIBOR; progress made in the transition away from LIBOR to date; and how to ensure organizations are ready for the end of LIBOR.
	European Central Bank <u>publishes</u> good <u>practices</u> for banks to prepare for benchmark rate reforms	Results of European Central Bank industry-wide assessment of banks' preparedness for the benchmark interest rate reforms.
August 2020	The Alternative Reference Rates Committee launches the <u>SOFR Starter</u> <u>Kit</u>	A set of fact sheets to inform the public about the transition away from U.S. dollar (USD) LIBOR to SOFR, the ARRC's recommended alternative reference rate.
	The Alternative Reference Rates Committee releases updated recommended hardwired fallback language for bilateral business loans	The updated fallback language adjusts the "Hardwired Approach" and the "Hedged Loan Approach" of the final recommended language that was released in May 2019.
	Joint industry consultation on the SIBOR reform and a shift to a SORA centred SGD interest rate market	The Association of Banks in Singapore, the Singapore Foreign Exchange Market Committee and the Steering Committee for SOR Transition to SORA issued a consultation report, which recommends the discontinuation of the SGD SIBOR in three to four years, and a shift to the use of SORA as the main interest rate benchmark for SGD financial markets.

Appendix (continued)

September 2020	Securing a SONIA-based sterling loan market	In order to support a timely transition away from use of LIBOR ahead of the end of 2021, the Bank of England's Working Group on Sterling Risk-Free Reference Rates has recommended for lenders to be ready by the end of September 2020.
	The Alternative Reference Rates Committee releases RFPs for the publication of forward-looking SOFR term rates	The ARRC is seeking a potential administrator to publish forward-looking SOFR term rates.
	Recommendation on conventions for referencing compounded in arrears SONIA in the sterling loan market	In recognition of widespread demand from sterling loan market participants, the Bank of England's Working Group on Sterling Risk-Free Reference Rates released a recommendation on standard market conventions for sterling loans based on compounded in arrears SONIA.
	Bank of England produces papers on transition of legacy cash products	The Working Group published two papers providing practical steps and considerations in the active transition of legacy cash products.
October 2020	ISDA statement on IBOR Fallbacks Supplement and Protocol	ISDA confirms that it will launch the IBOR Fallbacks Supplement to the 2006 ISDA Definitions and the ISDA 2020 IBOR Fallbacks Protocol on October 23, 2020.
	Bank of England welcomes Fallbacks protocols	Bank of England welcome the announcement by the ISDA that its IBOR Fallbacks Protocol and IBOR Fallbacks Supplement will be launched on October 23, 2020, with an effective date of January 25, 2021.
	Association of Banks in Singapore announces new transition timeline	The Association of Banks in Singapore has announced a new timeline which states that by end-April 2021, all lenders and borrowers should cease issuance of SOR-indexed loans and securities that mature after end-2021.
	CARR's mandate expanded to include analysis of CDOR	The Canadian Fixed Income Forum (CFIF) has expanded the mandate of the Canadian Alternative Reference Rate working group (CARR) to include an analysis of the Canadian Dollar Offered Rate (CDOR).
November 2020	Refinity Announces Changes to CDOR Following Industry Consultation	Refinitiv Benchmark Services (UK) Limited (RBSL), the administrator of Canadian Dollar Offered Rate (CDOR), announced that the six-month and 12-month tenors of CDOR will cease to be published effective May 17, 2021.
	Canadian Alternative Reference Rate Working Group Launches Consultation	The Canadian Alternative Reference Rate (CARR) working group published a consultation paper on a proposed methodology for calculating CORRA-inarrears as well as draft fallback language for floating rate notes (FRNs) that reference CDOR.
December 2020	ICE Benchmark Administration Publishes Consultation on Potential Cessation of LIBOR® Settings	ICE Benchmark Administration Limited (IBA), the authorized and regulated administrator of LIBOR, published a consultation on its intention to cease the publication of all GBP, EUR, CHF, JPY and 1-week and 2-month USD LIBOR settings on December 31, 2021, and the overnight and 1-, 3-, 6- and 12-month USD LIBOR settings on June 30, 2023.

2. STATUS OF PROPOSED REGIONAL BENCHMARK REPLACEMENTS

Jurisdiction	Prior Benchmark	Replacement Rate	Current Status
US	USD LIBOR	SOFR (Secured Overnight Financing Rate)	 Rate has been published since April 2018. Forward looking term rate expected in 2021.
Euro Area	EURIBOR	€STR (Euro Short-Term Rate) EURIBOR (Reformed)	 Rate has been published since October 2019. EURIBOR has been reformed and will continue as a Benchmark Regulation Compliant rate.
Japan	JPY LIBOR	TONAR (Tokyo Overnight Average Rate)	The Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks has advised that financial institutions should begin using non-LIBOR interest rate benchmarks in new contracts as soon as possible, and that fallback language should be added to existing contracts where maturities go beyond 2021.
UK	GBP LIBOR	Reformed SONIA (Sterling Overnight Index Average)	 Reformed SONIA has existed since April 2018. SONIA Compounded Index published since August 3, 2020.
Switzerland	CHF LIBOR	SARON (Swiss Average Rate Overnight)	 SARON swaps began trading in April 2017. SARON futures have been available for trading since October 2018.
Canada **	CDOR	CORRA (Canadian Overnight Repo Rate Average) Complementary rate to operate alongside CDOR	 CORRA has been published daily by The Bank of Canada since June 15, 2020. CDOR to co-exist next to CORRA. Montreal Exchange has listed new three-month CORRA futures contract since June 12, 2020. Refinitiv Benchmark Services (UK) Limited announced that it would cease calculation and publication of the 6-month and 12-month CDOR as of Monday, May 17, 2021.
China *:	LPR	LPR reformed (Loan Prime Rate)	 Since December 2019, financial institutions have been required to price at least 50% of new loans using a reformed version of the country's loan prime rate, the LPR. Since August 2020, floating rate loans must use the LPR. Currently, the LPR now underpins most new loans in China.
Singapore	SIBOR	SOR (Swap Offer Rate) SORA (Singapore Overnight Rate Average)	 A consultation report has advised that the SIBOR will be discontinued in three to four years (by around 2024), and that the SORA is used as the main interest rate benchmark for Singapore's financial markets. A forward-looking SORA term rate is currently in development with use planned to start in early 2021. Association of Banks in Singapore has announced a new transition timeline: by end-April 2021, all lenders and borrowers to cease issuance of SOR-linked loans and securities that mature after end-2021.
Hong Kong	HIBOR	HONIA (Hong Kong Inter-bank Offered Rate)	The HKMA (Hong Kong Monetary Authority) has indicated that HIBOR will remain in use, albeit with further reforms.
Australia *	AUD LIBOR	BBSW (Bank Bill Swap Rate) AONIA (Australian Overnight Index Average)	 The LIBOR rate for Australian dollars has been withdrawn and replaced by BBSW. AONIA is also gaining traction, with the first floating-rate note tied to the benchmark pricing in 2019.

For more information

For more information on CIBC Mellon's preparedness for LIBOR, please contact a member of the CIBC Mellon Business Development team or your Relationship Executive or Relationship Manager at 416-643-5000, or visit www.cibcmellon.com.



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