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# The Endgame: Benchmark Reform and Transition from IBORs


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The transition from LIBOR continues to progress. Clarity has increased with confirmation of the timelines for cessation and deadlines to cease issuance of new LIBOR contracts, finalized fallback language, and enhanced regulatory guidance. With less than a year until many tenors of LIBOR will cease to be published, many major milestones have already occurred and market participants are actively engaged in the transition. However, there are


## Executive Summary

Education and communication are the most important tools to ensure the industry and markets can successfully transition away from IBORs, including clear timelines, cross-functional internal working groups, regulatory guidance, and client engagement.

BlackRock is supportive of the transition from IBORs to identified risk-free reference rates across jurisdictions, where we believe the greatest liquidity will exist. We acknowledge that there is no one-size-fits all solution and modified versions of the recommended reference rates, as well as alternatives to them, may be appropriate in some cases. However, we caution against a highly fragmented market, which would result in increased costs for end-investors. Understanding the differences between IBORs and alternative reference rates will allow for appropriate, informed portfolio management decisions. BlackRock is working to shift processes to incorporate alternative reference rates (ARRs) as standard practice going forward and are supportive of industry initiatives that do the same.

**This paper discusses:**

- LIBOR cessation dates and fallback spreads;
- Recent transition progress related to ISDA fallbacks, SOFR & ESTR discounting transition, liquidity in alternative reference rates, legislative progress for tough legacy contracts, regulatory updates and global coordination;
- Outstanding issues such as developing liquidity in ARRs, development and adoption of alternatives to SOFR in the US, discussions around a dynamic credit spread, forward-looking term rates in the US, next steps to address tough legacy contracts, performance benchmark transition, and the central clearing counterparty (CCP) conversion process for IBOR swaps; and
- What to expect next as the transition progresses, including the focus on upgrading systems and analytics, workflow shifts, and what to expect from investment advisers.


The opinions expressed are as of June 2021 and may change as subsequent conditions vary.

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steps yet to be taken and questions remain surrounding preparedness, market dynamics, portfolio implications, and regulation. Importantly, the Alternative Reference Rates Committee (ARRC), convened by the US Federal Reserve Board and the New York Federal Reserve, has estimated that $223 trillion remains in outstanding exposures to USD LIBOR,[1] while GBP LIBOR exposures were estimated at $30 trillion at the end of 2018, which means much is left to be done to transition.[2] This *ViewPoint* focuses on providing an update on LIBOR transition, information and recommendations on outstanding issues, and what to expect next as we move closer to LIBOR cessation.

## LIBOR Cessation

The United Kingdom's Financial Conduct Authority (FCA), the regulator of the LIBOR administrator who publishes the rate, announced on March 5, 2021, that the publication of most LIBOR settings will cease immediately after December 31, 2021, with some exceptions in order to reduce market disruptions and allow a greater proportion of legacy LIBOR contracts to expire before the cessation date. However, the use of LIBOR settings in new contracts is expected to end after 2021. The announcement follows the completion of the ICE Benchmark Administration Limited (IBA) consultation on its intention to cease publication of LIBOR in its various currency-tenor settings as the administrator of LIBOR.

Publication of the overnight and 12-month US dollar settings will cease after June 30, 2023. The FCA will consult on requiring IBA to publish a synthetic LIBOR on 1-month, 3-month, and 6-month sterling settings, using the new powers the UK government is providing under the BMR legislation. FCA will also consult on requiring the IBA to publish a synthetic LIBOR setting for 1-month, 3-month, and 6-month Japanese yen in order to allow more time for transition away from Japanese yen LIBOR to complete. The FCA does not expect to compel IBA to continue to publish any Japanese yen LIBOR settings after year-end 2022.[3] Exhibit 1 shows LIBOR settings and their cessation dates.

Furthermore, the FCA has advised that it has no intention of using its proposed new powers to require the IBA to continue the publication of any Euro or Swiss Franc LIBOR settings, or the overnight/spot , 1-week, 2-month and 12-month LIBOR settings in any other currency, beyond the above intended cessation dates for such settings.

The proposed new powers are to allow the FCA to impose changes to the calculation methodology of a designated LIBOR setting and require the IBA to publish such LIBOR setting based on that amended methodology ("synthetic" LIBOR). Any synthetic LIBOR will no longer be representative of the underlying market and is therefore not intended to be used for new business; instead it is intended to support instances where removing a LIBOR setting from a product or service is not easily achieved ahead of the LIBOR settings ceasing ("tough legacy" contracts). In its consultation, the FCA will consider which legacy contracts will be permitted to use any "synthetic" LIBOR setting.

The importance of the FCA's announcement in the transition away from LIBOR has been emphasized by the Bank of England, the ARRC, the Bank of Japan and the IBA, amongst others, recognizing the FCA's leading role in LIBOR transition.

The FCA's announcement removes any uncertainty regarding the LIBOR cessation date and establishes firm expiration dates for all LIBOR settings. While the cessation is the end date, we expect that transition will take place sooner as markets and liquidity continue to shift to ARRs and issuance in the alternative rates increases.

### Fallback Spreads

The FCA announcement also triggered the fixing of spread adjustments used in fallbacks. The spread accounts for the differences between LIBOR and ARRs and is based on ISDA's recommended spread adjustment methodology for

### Exhibit 1: LIBOR Cessation Date

| Setting | Cessation Date |
|---|---|
| All 7 Euro LIBOR settings | December 31, 2021 |
| All 7 Swiss Franc LIBOR settings | December 31, 2021 |
| Spot, 1-week, 2-month, and 12-month Japanese Yen LIBOR settings | December 31, 2021 |
| Overnight, 1-week, 2-month, and 12-month sterling LIBOR settings | December 31, 2021 |
| 1-week and 2-month US dollar LIBOR settings | December 31, 2021 |
| Overnight, 1-month, 3-month, 6-month, and 12-month US dollar LIBOR settings | June 30, 2023 |
| 1-month, 3-month, and 6-month SYNTHETIC Japanese Yen LIBOR settings | December 30, 2022 |
| 1-month, 3-month, and 6-month SYNTHETIC sterling LIBOR settings | TBD |

Source: FCA, as of March 5, 2021

derivatives. Following extensive ISDA consultations, most respondents agreed that the preferred methodology for the spread adjustment is to use the median difference (spread) between LIBOR and ARRs calculated over the previous 5-year period. In cash products referencing USD LIBOR, the ARRC has recommended the same 5-year median methodology as ISDA with the exception of consumer products, where the ARRC is recommending a 1-year transition period to this 5-year median spread methodology.[4]

In many cases, a spread adjustment will be needed to minimize economic differences between IBORs and ARRs. The spread adjustment amounts will differ across currencies and tenors as shown in Exhibit 2. Importantly, while there are differences between SOFR and LIBOR, the process of developing spread adjustments has been transparent and taken into account the impact on investors.

The fixed spread adjustments for the five LIBOR rates are shown in Exhibit 2. EONIA will continue to be calculated as €STR plus a fixed spread of 8.5bps until its discontinuation. The fallback spreads for SOR will be the same as for USD LIBOR, since the fallback rate for SOR will be using the same fallback rate as USD LIBOR contracts.[5] The spread adjustment for THBFIX will be published by BOT, including the fallback rate for THBFIX.[6]

Importantly**, BlackRock is trading alternatives to global IBORs today**. With the fixing of fallback spreads, there is certainty with respect to asset valuation for instruments that have defined fallbacks and follow the ISDA-recommended fallback methodology (which is incorporated into many cash products as well). Therefore, portfolio management decisions along with valuation and risk models can incorporate this timeline and the application of fallback spreads.

**Application of the ISDA recommended fallbacks eliminates ambiguity for asset valuations in the future for OTC derivatives**

## Recent Transition Progress

Over the past year, major milestones have driven significant transition progress.

### ISDA Fallback Language

The ISDA IBOR Fallbacks Protocol and Supplement became effective on January 25, 2021. The finalization of the ISDA fallbacks represented a critical step toward transitioning away from IBORs and the adoption of the fallbacks should significantly reduce the risk of market disruption in the non-cleared derivatives market. The fallbacks will apply to all new derivatives contracts that reference ISDA's standard interest rate derivatives definitions as well as all legacy non-cleared derivatives if the counterparties have bilaterally agreed to include them or both have adhered to the IBOR Fallbacks Protocol.[7] According to the ARRC, as of March 12, 2021, there were 13,540 adhering parties to the IBOR Fallbacks Protocol.[8] The FCA estimates that just over 85% of uncleared sterling LIBOR-linked swaps now have effective fallbacks in place because both parties have adhere to the protocol, while 99.7% have at least a one-sided adherence.[9] **Widespread industry adoption of the ISDA protocol will contribute to an orderly transition and consistency in the derivatives markets**.[10] BlackRock has adhered to the protocol for all funds and accounts under the BlackRock umbrella agreements.

Adherence to the protocol combined with certainty of the fallback spread calculation removes ambiguity regarding contract valuation upon the now known LIBOR cessation dates. Compensating for the differences between LIBOR and its recommended ARR via a known spread will allow for a smooth conversion in the future. In some sense, this implies that a derivative position, governed under an ISDA agreement that adheres to the protocol, that references LIBOR today is already exposed to future ARR risk. The

**Exhibit 2: Spread Adjustments in Fallbacks**

| CCY | Overnight | | 1-week | | 1-month | | 3-month | |
|---|---|---|---|---|---|---|---|---|
| | BBG Ticker | Spread | BBG Ticker | Spread | BBG Ticker | Spread | BBG Ticker | Spread |
| USD | SUS00ON | 0.6 | SUS0001W | 3.8 | SUS0001M | 11.4 | SUS0003M | 26.1 |
| EUR | SEE00ON | 0 | SEE0001W | 2.4 | SEE0001M | 4.5 | SEE0003M | 9.6 |
| GBP | SBP00ON | 0 | SBP0001W | 1.7 | SBP0001M | 3.3 | SBP0003M | 11.9 |
| JPY | SJY00SN | -1.8 | SJY0001W | -2 | SJY0001M | -2.9 | SJY0003M | 0.8 |
| CHF | SSF00SN | -5.5 | SSF0001W | -7 | SSF0001M | -5.7 | SSF0003M | 0 |

Source: Bloomberg, data as of March 5, 2021 success of the protocol however should not be taken as an excuse to delay transition on the notion that the valuation framework is already set. We do expect liquidity to shift away from LIBOR to ARRs within both cash and derivatives markets as cessation dates approach. The incorporation of fallback language is not an inhibitor of transition away from LIBOR but rather allows for contract continuity and, in our view, promotes the growth of ARRs. The Chicago Mercantile Exchange (CME) and London Clearing House (LCH) are also preparing to transition LIBOR-linked futures (including Eurodollar futures in the US) and cleared interest rate swaps to SOFR with the use of cash compensation to capture the change in net present value (NPV) between the pre-conversion LIBOR trade and the post-conversion RFR replacement. These operational exercises, similar to the CCP discounting switch, involve careful preparation and must be well understood. Additionally, it is important to note the risk profile changes within derivatives as valuation components migrate from use of a term rate to a compounded overnight rate.

## CCP Discounting Transition

As part of market-wide efforts to transition away from IBORs, the CCPs transitioned their discounting and price alignment interest (PAI) from Effective Fed Funds Rate (EFFR) to SOFR for cleared USD-denominated derivative contracts and from Euro Overnight Index Average (EONIA) to ESTR for cleared EUR-denominated derivatives. Both events were important drivers of liquidity in the ESTR and SOFR markets. This is because discounting PAI introduces ARR risk into the system, creating the need for increased activity in them to manage basis risk.

In July 2020, CCPs migrated to an €STR-based discounting and PAI for Euro-denominated interest rate swaps. In October 2020, CME and LCH migrated discounting and PAI for all cleared USD interest rate swap (IRS) products from the EFFR to SOFR. The SOFR Discounting Switch formed a key component of the Paced Transition Plan put forward by the ARRC in 2018. In March 28, 2021, CME transitioned the discounting and PAI for cleared MXN, NDIRS & OTC FX products from EFFR/EONIA to SOFR /ESTR.

Ultimately, **the CCP discounting and PAI transition further embedded risk-free rates within the derivatives market and helped drive liquidity in the RFR products**. Notably, this complex operational effort was successful and smooth due to careful preparation by the CCPs and participants throughout the system.

## Transition of Investments

Migration away from IBORs has steadily continued over the past year. In the UK, the advantage of having an established underlying SONIA market is evident when considering the relative success of the GBP LIBOR transition effort. Whilst notional amount of derivatives referencing LIBOR remains relatively high, the path to transition is wide open and liquid. New Interest Rate Swap risk is predominantly being executed in SONIA and GBP LIBOR is only accepted by counterparties as a hedging tool or part of an active transition strategy. The application of a “SONIA first” strategy, supported by the official sector, has been helpful in changing workflow patterns to drive this change.

With respect to GBP LIBOR exposures in client funds, several issuers in the UK have already transitioned outstanding bonds from their LIBOR benchmark to reference SONIA compounded in arrears in advance of the cessation date via consent solicitations. BlackRock has been actively engaging with issuers to support early transition, thus reducing the legacy positions, in all cases working with issuers and their banks to ensure investors are not disadvantaged by the conversion terms. Guidance and recommendations from the Working Group on Sterling Risk-Free Reference Rates (UK RFR WG) have assisted in selecting the appropriate replacement rate to LIBOR including an appropriate spread adjustment. BlackRock has also been active in responding to relevant consultations that have been taking place in this area. We expect the level of transitions to rise for the remainder of the year, but are conscious that certain cash instruments will not be capable of being converted ahead of the cessation date.

**Progress in the SOFR Derivatives Market**

Trading volume in the SOFR derivatives market continues to expand following the SOFR discounting switch in October of last year. Exhibit 3 summarizes interest rate derivative volume since January 1, 2020 across all LIBOR currencies and their associated ARRs. Exhibit 4 shows USD LIBOR interest rate derivatives volumes.

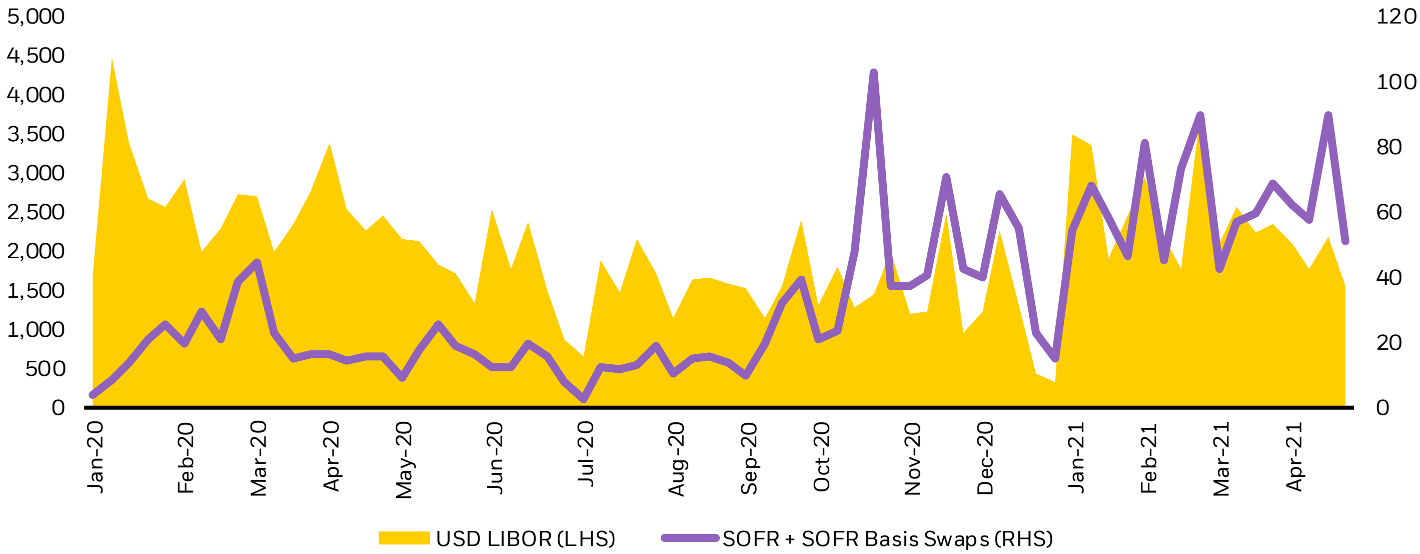
### Exhibit 3: LIBOR vs. ARR Interest Rate Derivatives Volume January 1, 2020 – April 23, 2021

| | Notional (USD billions) | | Trade Count |
|---|---|---|---|
| **USD LIBOR** | **$** | **141,096** | **937,401** |
| SOFR | $ | 2,322 | 16,087 |
| **GBP LIBOR** | **$** | **18,834** | **157,965** |
| SONIA | $ | 22,151 | 46,206 |
| **CHF LIBOR** | **$** | **805** | **16,023** |
| SARON | $ | 42 | 150 |
| **JPY LIBOR** | **$** | **4,736** | **50,439** |
| **TIBOR/Euroyen TIBOR** | **$** | **12** | **85** |
| TONA | $ | 354 | 890 |
| **EUR LIBOR** | **$** | **3** | **55** |
| **EURIBOR** | **$** | **34,765** | **315,626** |
| €STR | $ | 151 | 922 |

Note: ARR swap volume includes ARR basis swaps
Source: ISDA SwapsInfo, data as of April 23, 2021

## Exhibit 4: USD LIBOR-linked and SOFR Interest Rate Derivatives Volumes by Notional and Trade Count

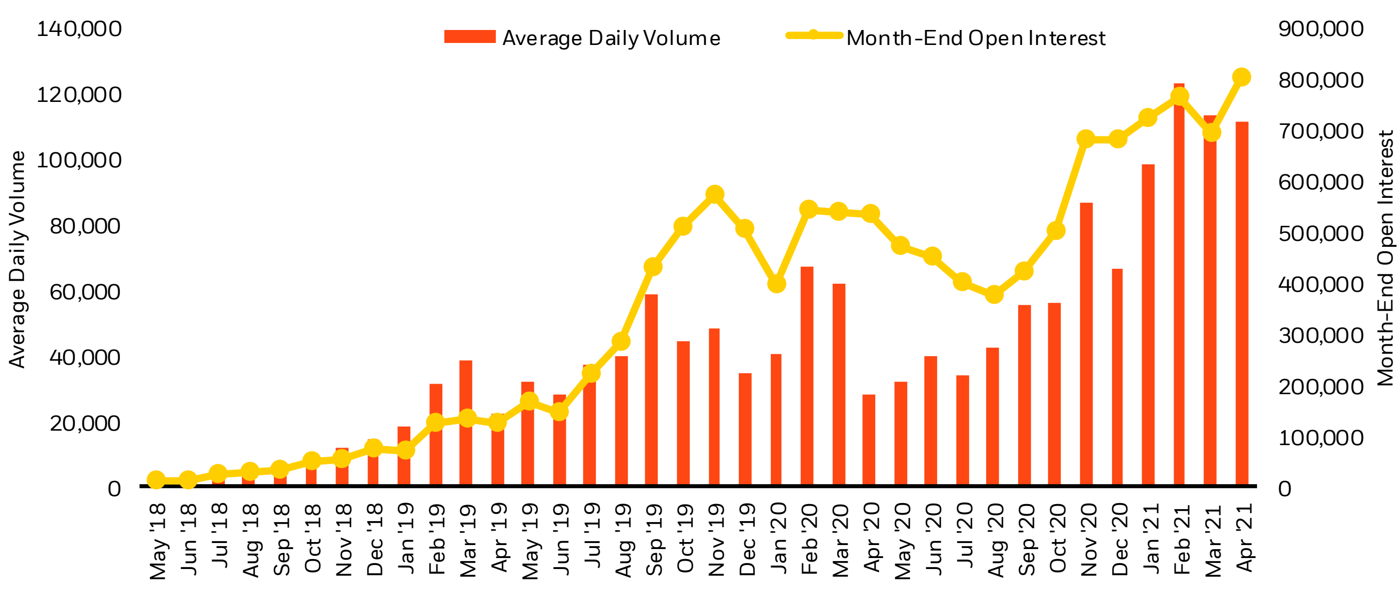
USD LIBOR vs. SOFR IRD Volume by Notional (USD Billions)




Source: ISDA, data as of April 23, 2021

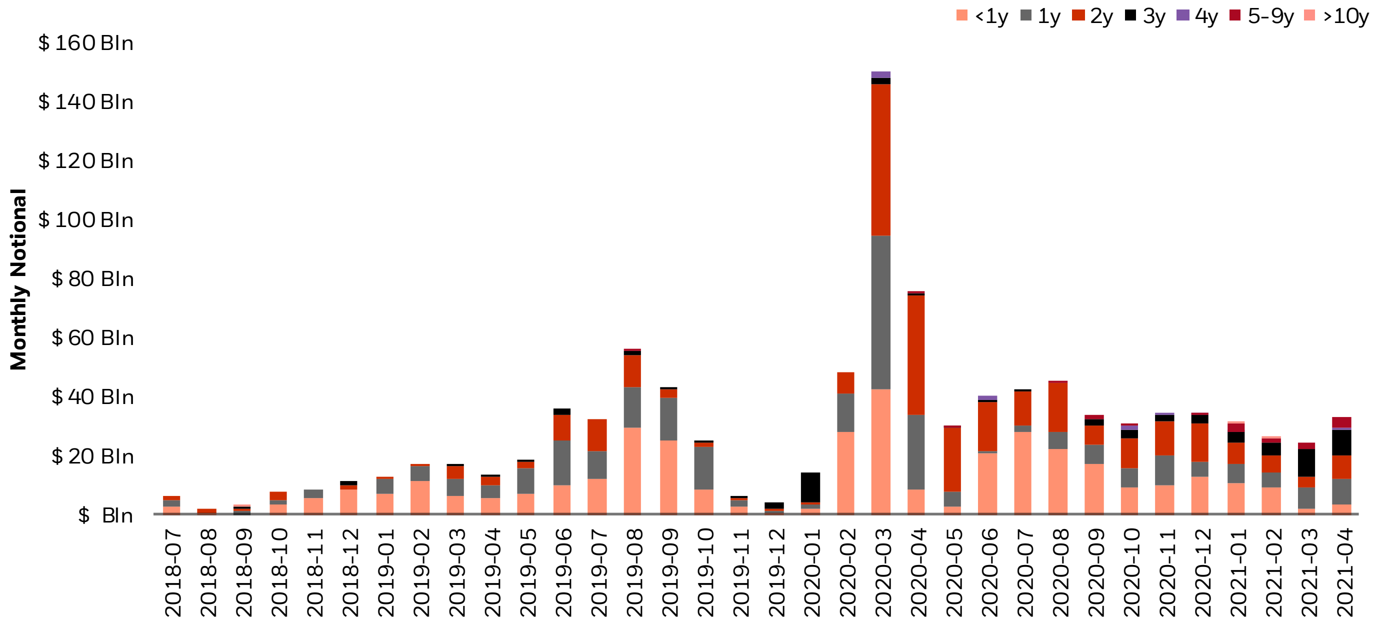
Trading in SOFR futures has gradually increased in the last three years, as seen in Exhibit 5. The trading volume jumped significantly in February and March 2020, followed by a drop in Q2 2020, but it has steadily increased since then. We view this as an important development, but recognize there is still a substantial volume of cash and derivative products traded on LIBOR as of the date of this publication.

## Exhibit 5: CME SOFR Futures




Source: CME Group, data as of May 14, 2021

## Exhibit 6: SOFR Issuance by Tenor




Source: Bloomberg , compiled by CME Group for informational purposes. CME Group does not warrant the accuracy or completeness of the information. Data as of April 30, 2021

**SOFR Issuance**

Monthly SOFR issuance has kept up despite month to month fluctuations, while cumulative SOFR issuance continues to increase at a steady pace, as shown in Exhibit 6. According to IFR data, over $20bn of SOFR floating rates notes have been issued this year compared to just over $15bn last year.[11] Banks and financial institutions such as the Federal Home Loan Banks, the Government-Sponsored Enterprises (GSEs), International Finance Corporation, the Inter-American Development Bank and the large banks have been some of the largest issuers in the SOFR market. Earlier this year, Enbridge Inc, became the first non-financial issuer to sell debt linked to SOFR followed by Siemens, AT&T, and others further boosting the prospects of SOFR issuance beyond the financial sector. The Enbridge order book was six times oversubscribed, demonstrating an increased investor appetite for SOFR issuance.[12]

**Progress in the SONIA Market**

The Sterling market is the most advanced in terms of Sterling Overnight Indexed Average (SONIA) issuance, with floating rate bond issuance wholly shifting to SONIA issuance. The Sterling floating rate bond market including securitizations has switched to referencing SONIA ahead of the timeline set out by the UK RFR WG in its roadmap. The cumulative subtotal of SONIA-linked FRNs since 2018 is 186 deals, totaling ~£81.7bn.[13] The Sterling loan market has lagged the adoption seen in the bond market, but is now ready for new originations without reference to LIBOR as set out by the Q2 2021 target date by the UK RFR WG. The Loan Market Association has a public list illustrating the adoption of ARRs on its website which is a helpful reference tool for the market.

**Progress in the TONA Market**

Tokyo Overnight Average Rate (TONA) issuance has been lagging, primarily due to low levels of bond issuance given the negative interest rate environment in Japan, among other factors.

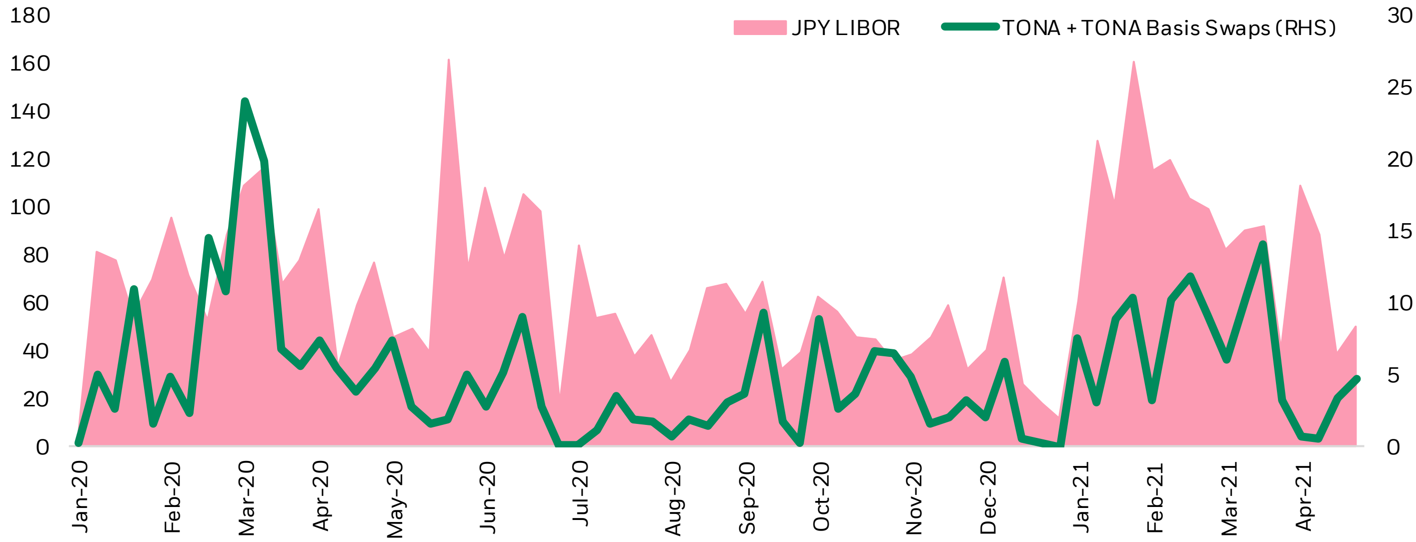
Trading activity in cleared OTC and exchange-traded yen interest-rate derivatives referencing TONA is behind those referencing SONIA, and to a lesser extent SOFR, as shown by the data in Exhibit 3.

The recent guidance provided by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks should further consolidate the gains made in the JPY interest rate swap market.[14] The key messages from the guidance include:

- Suspension of initiating new JPY LIBOR referenced derivatives by end of September 2021;
- TONA should be the main alternative benchmark for JPY interest rate swaps; and
- Quoting conventions for JPY interest rate swaps market be based on TONA by the end of July 2021.

**Exhibit 7: TONA Yen Interest Rate Derivative Trading Activity**

JPY LIBOR vs. TONA IRD Volume by Notional (USD Billions)




Source: ISDA, data as of April 23, 2021

Furthermore, the Bank of Japan and the Financial Services Agency have issued a joint statement with a timeline on issuance guidelines saying they will monitor firms' progress and take steps as needed. Companies should work to cease issuing new loans and bonds referencing JPY Libor by the end of June 2021, and to significantly reduce the amount of such securities on their books by the end of September 2021.[15]

**SORA Transition**

The market generally believes that the Singapore Overnight Rate Average (SORA) transition will progress as planned per the SC-STS committee. The Monetary Authority of Singapore (MAS) has started issuing SORA based floating rate notes. In April 2021, MAS published a circular on SOR/SIBOR transition to SORA that outlines a set of transition timelines and principles that financial institutions are expected to adhere to in their benchmark transition plans. The MAS is expected to closely monitor adherence to these timelines and principles. Such measures should further drive liquidity in the SORA market in the coming months.

**THOR Transition**

Similar to SOR, the Thai Baht Interest Rate Fixing (THBFIX) is a rate linked to USD LIBOR as it represents the cost of synthetically borrowing in Thai Baht by borrowing US dollar and swapping out the US dollar for Thai Baht.

The Bank of Thailand has recommended the Thai Overnight Repurchase Rate (THOR), first established in April 2020, as the replacement rates for THBFIX. THOR represents the interbank overnight private repurchase rate.[16] The Central Bank estimates there are about 50,000 contracts worth $610bn USD using THBFIX, mostly in derivatives. Last year saw the first issuance of a THOR-linked note as well as first THOR-linked swap in late August.

Following the progress in Singapore and Thailand, India and the Philippines are expected to follow suit in regards to MIFOR and PHIREF respectively. Both rates are linked to USD LIBOR similar to SOR and THBFIX.

## New York State Legislation for Legacy Contracts (in USD LIBOR Cash Markets)

While the extension of most LIBOR settings to June 2023 will help many legacy contracts mature before LIBOR cessation, some will remain. The ARRC estimates that 60 percent of current LIBOR exposures will mature before June 2023, however an estimated $90 trillion USD will remain outstanding beyond June 2023. Therefore, legislation is needed to allow those remaining contracts to transition.

On March 24, 2021, the New York State legislature approved legislation to allow certain legacy LIBOR contracts to transition away from LIBOR.[17] New York Governor Cuomo signed the legislation into law on April 7, 2021. Some legacy cash instruments do not have practical mechanisms to allow for revision of inadequate fallback language, therefore legislation is needed to allow for these changes. Examples of tough legacy contracts are shown in Exhibit 8. The NY legislation permits the application of an ARRC-recommended SOFR fallback rate and spread adjustment to US LIBOR instruments governed by NY law across all asset classes. Specifically, the legislation "prohibits parties from refusing to perform contractual obligations or declaring a breach of contract as a result of the discontinuance of LIBOR or the use of a replacement; establishes that the replacement is a commercially reasonable substitute for and a commercially substantial equivalent to LIBOR; provides a safe harbor from litigation for the use of the recommended benchmark replacement."[18] The key components of the legislation are shown in Exhibit 9.

### Exhibit 8: Examples of Tough Legacy Contracts

| | Typical Fallback | Consent Required |
|---|---|---|
| **Bonds (FRNs)** | Bank poll → Fixed Rate at last published LIBOR | Unanimous consent among bondholders |
| **Securitized Products** | • Bank poll → Fixed Rate at last published LIBOR<br>• Agency MBS allow issuer selection or fallback to last quoted LIBOR | Unanimous consent among bondholders |
| **Mortgages/ Consumer Loans** | Lender selection | Chosen by lender |
| **Business Loans** | • Bank poll → Alternative Base Rate<br>– Prime Rate or Fed Funds plus spread<br>• Some bilateral loans have no fallback<br>• Recent syndicated loans allow agent to select a replacement | • **Syndicated Loans**: Unanimous consent of lenders<br>• **Bilateral Loans:** Agreement between borrower and lender |
| **Other payments** | Other contractual payments (e.g. purchase agreements, sales contracts) typically have no fallback provision | Counterparties must agree |

LIBOR payments have also been incorporated into a wide array of corporate contracts, including in purchase agreements or sales contracts containing provisions applying LIBOR to adjust pricing for delayed payment or in transfer pricing

Source: ARRC

### Exhibit 9: Key Components of NY Legislative Structure

| Provision | Description |
|---|---|
| **"Mandatory" v. "Permissive" Application of the Statute** | Mandatory: If the legacy contract is silent as to fallbacks.<br>Mandatory: If the legacy language falls back to a Libor-based rate (such as last-quoted Libor).<br>Permissive: If the legacy language gives a party the right to exercise discretion or judgment regarding the fallback, that party can decide whether to avail itself of the statutory safe harbor. |
| **Degree of Override of Legacy Contract Fallback Provisions** | Override: Where the legacy language falls back to a Libor-based rate (such as last quoted Libor).<br>Override: If the legacy language includes a fallback to polling for Libor or other interbank funding rate, the statute would mandate that the polling not occur.<br>No Override: Where the legacy language is silent as to fallbacks or gives a party the right to exercise judgment or discretion regarding the fallback. In these instances, there is nothing to override.<br>No Override: The statute would not override legacy language that falls back to an express non-Libor-based rate (such as Prime). |
| **Mutual "Opt-Out"** | Parties would be permitted to mutually opt-out of the application of the statute, in writing, at any time before or after the occurrence of the Trigger Event. |
| **Trigger Events and Replacement Date** | The statute would become applicable or available (as described in "Mandatory" v. "Permissive" above) upon the occurrence of statutory trigger events<br>• The statutory trigger events would be based on the ARRC permanent cessation and pre-cessation trigger events.<br>• This mechanic ensures replacement dates that match those in the ARRC fallbacks and ISDA's IBOR protocol. |
| **Conforming Changes** | The statute would provide safe-harbor protection for parties who add conforming changes to their documents to accommodate administrative/operational adjustments for the statutory endorsed benchmark rate. |

Source: ARRC

## Regulatory Updates & Global Coordination

In addition to the FCA's announcement regarding the cessation of LIBOR, policy makers and regulators around the world have taken significant steps over the past year to provide guidance and clarity to the industry and encourage transition away from LIBOR.

**Financial Stability Board**

The Financial Stability Board (FSB) - an international official sector body that monitors and makes recommendations about the global financial system - published a global transition roadmap for LIBOR on October 16, 2020, setting out a timetable of actions for firms to take to ensure a smooth transition by the end of 2021. The steps in the roadmap include:

- Firms should have already identified and assessed all existing LIBOR exposures and agreed upon a project plan to transition in advance of end-2021;
- By the effective date of the ISDA Fallbacks Protocol, the FSB strongly encourages firms to have adhered to the Protocol;
- By the end of 2020, firms should be positioned to offer non-LIBOR linked loans to their customers; and
- By mid-2021, firms should have established formalized plans to amend legacy contracts where this can be done and have implemented the necessary system and process changes to enable transition to robust alternative rates.[19]

**US Banking Regulators**

The Federal Financial Institutions Examination Council (FFIEC) issued a statement on July 1, 2020, highlighting potential preparedness and risk management actions that institutions should factor into their planning for transition.[20]

The Federal Reserve, Office of the Comptroller of the Currency (OCC), and Federal Deposit Insurance Corporation (FDIC) issued a statement on November 30, 2020, supporting the extension of certain USD LIBOR tenors to June 2023 in order to allow most legacy contracts to mature before LIBOR ceases. However, the regulators encouraged banks to cease entering new LIBOR contracts "as soon as practicable and in any event by December 31, 2021."[21]

**Commodity Futures Trading Commission (CFTC)**

The CFTC has issued several no-action letters providing LIBOR transition relief.

- CFTC Staff Letter No. 20-23 was issued by the Division of Swap Dealers and Intermediary Oversight to provide relief to swap dealers from registration de minimis requirements, uncleared swap margin rules, business conduct requirements, confirmation, documentation, reconciliation requirements, and certain other eligibility requirements. (August 31, 2020)
- CFTC Staff Letter No. 20-24 was issued by the Division of Market Oversight to provide time-limited relief from the trade execution requirement. (August 31, 2020)
- CFTC Staff Letter No. 20-25 was issued by the Division of Clearing and Risk to provide time-limited relief from the swap clearing requirement and related exceptions and exemptions. (August 31, 2020)
- CFTC Staff Letters No. 20-32 and No. 20-33 provided swap transaction and pricing data reporting relief to specific derivatives clearing organizations (DCOs) and market participants participating in upcoming DCO auctions that will help transition certain cleared swaps from discounting using the Effective Federal Funds Rate (EFFR) to SOFR. (October 13, 2020)

**US Treasury**

The US Treasury Department published and received comments on a Request for Information regarding the possibility of issuing a SOFR-indexed floating rate note.[22]

**Financial Accounting Standards Board**

The Financial Accounting Standards Board (FASB) issued an Accounting Standards Update on January 7, 2021, clarifying the scope of its recent reference rate reform guidance.[23] That guidance provided temporary, optional expedients and exceptions for applying accounting guidance to contract modifications and hedging relationships, which was later expanded to include derivatives affected by the discounting transition.

**Financial Conduct Authority (FCA)**

On March 26, 2021, the FCA and Prudential Regulation Authority (PRA) published a joint "Dear CEO" letter outlining priority areas where further action by firms is necessary to prepare for the cessation of LIBOR.[24]

On May 20, 2021, the FCA published a consultation on its proposed policy framework for two of its new powers under the Benchmarks Regulation (BMR), which will be introduced by the Financial Services Act 2021.[25] These powers relate to the use of critical benchmarks that are being wound down. The consultation sets out which factors the FCA thinks are relevant in deciding what legacy use of a permanently non-representative benchmark, such as any synthetic LIBOR, it will permit to continue; and whether and how it might use its power to restrict new use of a critical benchmark that is ceasing.

**UK Risk-Free Reference Rate Working Group**

The FICC Markets Standards Board (FMSB) published a transparency draft of a standard on use of Term SONIA reference rates (TSRRs) which recognises the conduct and systemic risk advantages associated with a broad-based adoption of overnight SONIA, compounded in arrears, and aims to identify selected use cases for TSRRs in sterling markets where there is a robust rationale to meet specific needs.[26]

In February 2021, the Bank of England released an updated version of their Working Group on Sterling Risk-Free Reference Rates (RFRWG) roadmap, recommending the following Key Milestones for Markets in 2021.

- **End Q1 2021**
  - Cease initiation of new GBP LIBOR-linked loans, bonds, securitisations and linear derivatives that expire after the end of 2021[27]
  - Complete identification of all legacy GBP LIBOR contracts expiring after end 2021 that can be actively converted, and accelerate active conversion where viable

The RFRWG's key expectation is for any new business in GBP LIBOR-linked linear derivatives after March 31, 2021, to be based on SONIA. However, the RFRWG does recognise there will be 'limited circumstances where it may be appropriate to transact new GBP LIBOR-linked linear derivative contracts expiring after end 2021. These circumstances generally pertain to risk management of existing positions and are listed in the RFRWG's publication. Exceptions are expected to be kept to a prudent minimum.

- **End Q2 2021**
  - Progress active conversion of all legacy GBP LIBOR contracts expiring after end 2021 where viable and, if not viable, ensure robust fallbacks are adopted where possible
  - Cease initiation of new GBP LIBOR non-linear derivatives that expire after end 2021[27]
  - Cease initiation of new GBP LIBOR exchange traded derivatives that expire after end 2021[27]

**The Working Group on Euro Risk-Free Rates**

The Euro Overnight Index Average ("EONIA") became increasingly fragile in recent years due to low volumes and the decline of panel banks members. Consequently, based on the recommendation from the Working Group on Euro Risk Free Rates, the methodology and publication time (e.g. moved to T+1) were changed and since October 2019, EONIA became a tracker rate to the Euro Short-Term Rate ("€STR"), the risk-free rate selected by the Working Group on Euro Risk Free Ra, and is now equal to €STR + a fixed spread of 8.5 bps. €STR will replace EONIA on 3 January 2022 when EONIA is scheduled to be discontinued.

No potential cessation date has been set for EURO Interbank Offered Rate ("EURIBOR") which completed reforms of its methodology in Q4 2019. The European authorities believe reformed EURIBOR can exist beyond 2021 and no indication has been given that EURIBOR is likely to cease anytime soon.

> **“ I can clearly state that, as of today, the discontinuation of Euribor is not part of our plans”**
>
> Steven Maijoor,
> Former ESMA Chair

Steven Maijoor, former chair of the European Securities and Markets Authority or ESMA, said in a speech in September 2020 that EURIBOR performed well during recent pandemic-related market volatility from March 2020 onwards.

Nevertheless, ESMA wants users to insert fallback language in EURIBOR contracts in the event of EURIBOR being discontinued. In Q4 2020, the Working Group on Euro Risk Free Rates published two consultations relating to i) EURIBOR Fallback Triggers and ii) EURIBOR Fallbacks with final recommendations, based on market participants' responses. The results of the consultations showed some mixed responses form participants and we encourage investors and market participants to monitor further developments.[28]

**Hong Kong Monetary Authority (HKMA)**

The HKMA, in consultation with the Treasury Markets Association (TMA), developed in July 2020 transition milestones for authorized institutions (AIs), including:

1. AIs should be in a position to offer products referencing the ARRs to LIBOR from January 1, 2021;
2. Adequate fallback provisions should be included in all newly issued LIBOR-linked contracts that will mature after 2021 from January 1, 2021;
3. AIs should cease to issue new LIBOR-linked products that will mature after 2021 by June 30, 2021.

In March 2021, HKMA and TMA noted that the vast majority of AIs have substantially achieved the first two transition milestones. Regarding the third milestone, HKMA and TMA announced an extension to the timeline requiring the cessation of new LIBOR-linked products to the end of December 2021, noting announcements from other authorities, including the US Federal Reserve, that financial institutions should cease entering into new LIBOR contracts by the end of December. HKMA also noted, "A number of international banks have indicated to the HKMA that they have encountered difficulties in offering products referencing ARRs because client awareness in this region has yet to be raised and some term ARRs remain unavailable. They are concerned that restricting the issuance of LIBOR-linked contracts prematurely may result in a fragmentation of markets."[29]

**Japan: Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks**

On March 26, 2021, the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks, specifically the Sub-Group for the Development of Term Reference Rate, published a report outlining concrete steps in the in the discontinuation of JPY LIBOR interest rate swaps. The report advocated that:

1. Initiation of new interest rate swaps referencing JPY LIBOR and maturing after the end of 2021 shall cease no later than the end of September 2021, except for the purpose of risk management of existing positions. Market participants are expected to transition early, without waiting for the end of September, if they are able to do so.
2. The Tokyo Overnight Average Rate (TONA) shall be the main alternative benchmark for the JPY interest rate swaps market. However, market participants are not necessarily precluded from using other alternative benchmarks including the Tokyo Term Risk Free Rate (TORF) and TIBOR, as demand for those benchmarks is expected to remain depending on the purpose of trade.
3. New quoting conventions for the JPY interest rate swaps market based on TONA, instead of LIBOR, shall be adopted by no later than the end of July 2021. Market participants are expected to adopt the new quoting conventions early, without waiting for the end of July, if they are able to do so.

**Singapore: Steering Committee for SOR and SIBOR Transition to SORA (SC-STS)**

On March 26, 2021, the Steering Committee for SOR and SIBOR Transition to SORA (SC-STS) recommended that financial institutions cease the use of Singapore Interbank Offered Rate (SIBOR) in new contracts by the end of Q3 2021, cease usage of SOR in new derivatives contracts by the end of Q3 2021, and cease usage of SOR in new loans and securities that mature after the end of this year by end-April 2021. Instead, market participants should be using SORA, the Singapore Overnight Rate Average, a volume-weighted average rate of borrowing transactions in the unsecured overnight interbank SGD cash market.

# Outstanding Issues

## SOFR Alternatives & Dynamic Credit Spread

In the US some alternatives to SOFR that capture a dynamic credit spread have been launched. The public sector has made clear that they support innovation which includes the development of suitable reference rates with credit sensitive elements. The public sector will not endorse a specific rate, however focus is likely to continue in the private sector on alternatives.

The Federal Reserve Bank of New York hosted a series of Credit Sensitivity Group workshops in 2020 and 2021 to understand the challenges of transitioning loan products from LIBOR and explored methodologies for a credit sensitive rate/spread that could be added to SOFR.[30] Following the workshops, regulators sent a letter to workshop participants, noting, “The official sector does not plan to convene a group to recommend a specific credit-sensitive supplement or rate for use in commercial lending products, but we do plan to bring together workshop participants for two additional working sessions that can highlight the continued innovation in this space, including with regard to various specific credit sensitive rates, and explore solutions to implementation hurdles for commercial loans in the transition away from LIBOR. We recognize that innovation is central to the development and evolution of financial markets, and the official sector supports the continued innovation in, and development of, suitable reference rates, including those that may have credit sensitive elements.”[31]

On May 11, 2021, the ARRC held the second installment of its series “The SOFR Symposium: The Final Year.” Federal Reserve Bank of New York President John C. Williams and Bank of England Governor Andrew Bailey warned market participants about credit sensitive replacement rates that rely on similar markets to LIBOR, noting that “it is not clear to what extent alternative credit sensitive benchmarks have truly addressed the weaknesses of LIBOR. These rates, which are being promoted by some as alternatives to the selected risk-free rates have only a fraction of the underlying data points and are still exposed to the liquidity premia inherent in LIBOR. Building new benchmarks from small, and shrinking markets can create large and sudden movements in those rates that immediately get passed on to borrowers with contracts linked to those rates.”[32]

Further, the US banking regulators published a statement to reiterate that they are not endorsing a specific replacement rate for LIBOR loans. The statement notes, “A bank may use any reference rate for its loans that the bank determines to be appropriate for its funding model and customer needs.”[33]

BlackRock is supportive of the exploration of credit-sensitive options as market participants seek a variety of solutions to meet a variety of business needs. Over the past few months, progress towards a solution that incorporates a dynamic credit spread has been made which fits a specific purpose important to some end users. We also continue to support the transition to SOFR as the official ARRC-recommended risk-free rate. Our efforts are centered around the support of overnight SOFR as the US benchmark replacement for LIBOR, but we will continue to watch developments in liquidity and market structure as the transition continues. With any new index, the industry must evaluate composition, construction, and appropriateness, along with market depth and liquidity in associated derivatives for hedging purposes. Credit

**Our efforts are centered around the support of overnight SOFR as the US benchmark replacement for LIBOR, but we will continue to watch developments in liquidity and market structure as the transition continues.**

sensitive indices will co-exist alongside SOFR and we encourage participants to understand their differences and basis risks. We do not believe that this will detract from SOFR as a US benchmark, where we anticipate the largest volumes and liquidity will exist. With any new innovation, we must be aware of time and resource constraints as transition work continues. As market participants coalesce around standardized solutions, less fragmentation is likely to occur.

## Forward-Looking SOFR Term Rate

The ARRC announced in early 2021 that "it is still evaluating the limited set of cases in which it believes a forward-looking SOFR term rate could be used. Robust underlying activity and a limited scope of use over time are important conditions to help ensure that a recommended term rate does not reintroduce the vulnerabilities that first prompted the transition away from LIBOR."[34] The ARRC also published key principles for considering a forward-looking term rate, noting, a forward-looking SOFR term rate should meet the ARRC's criteria for alternative reference rates, be rooted in a robust and sustainable base of derivatives transactions over time, and have a limited scope of use.[35] In early May 2021, the ARRC published a press release[36] outlining "market indicators" by which it would support a term rate, followed by a press release on May 21, 2021, in which the ARRC announced it had selected CME Group as the administrator it will recommend for a forward-looking SOFR term rate, once market indicators for the term rate are met.[37]

**While term rates play an important role in serving specific business needs, the transition from LIBOR should not be dependent on the adoption of a forward-looking term rate**. Indeed, the ARRC has encouraged market participants to continue to transition from LIBOR using the tools available now, such as overnight SOFR averages and index data that can be applied in advance or in arrears. The ARRC will need to lay out conditions to standardize the quoting of term SOFR. Term SOFR has many benefits and can be part of a broader solution.

## Legislative Solutions & Tough Legacy Transition

The ARRC has noted that, "Although an estimated 60% of current LIBOR exposures will mature before June 2023, an estimated $90 trillion will remain outstanding – a fact that underscores the importance of finding solutions for legacy contracts."[38] While progress has been made, additional clarity is needed.

While most US LIBOR contracts are governed by NY law, some are governed by the laws of other states. Therefore, federal legislation is also needed to ensure consistency across all US legacy contracts to the extent possible. In addition, **even with the finalized NY legislation, some in the industry may seek guidance regarding the application of the Trust Indenture Act (TIA).** The TIA may be interpreted in a way that would limit the effectiveness of the legislative relief for LIBOR transition. Section 316(b) of TIA states, "Notwithstanding any other provision of the indenture to be qualified, the right of any holder of any indenture security to receive payment of the principal of and interest on such indenture security...shall not be impaired or affected without the consent of such holder." While the TIA does not apply to all note issuances, consistency with the TIA would be an important aspect of any legislative safe harbor to transition tough legacy contracts from LIBOR.

On January 26, 2021, Edwin Schooling Latter (Director Markets and Wholesale Policy at the FCA) indicated that the FCA plans to consult on the "tough legacy" contracts that will be permitted to use "synthetic" LIBOR after the IBA pre-cessation announcement, with the hope of making a decision by summer 2021, subject to parliamentary approvals. However, the FCA has gone to great lengths to make it clear that a continued publication of "synthetic LIBOR" is:

- Not for use in new contracts
- For use in tough legacy contracts only
- Applicable to some sterling LIBOR settings
- Applicable to some yen LIBOR settings for 1 additional year.

**While approaches may differ across jurisdictions, it is important that *all* tough legacy LIBOR contracts have a pathway to transition**. Moreover, these solutions are critical to allowing tough legacy assets to transition, however **it is important that regulators continue to reiterate that these solutions should not allow for the use of LIBOR in new contracts**.

## What to Expect Next

Over the next year, we expect to see continued progress in terms of marked behavioral shifts in the marketplace as alternative reference rates experience a transition themselves from "selected benchmark" to "standardized index."

The scope of the transition is large and there is still much work to be done. However, with years of preparation, hard work, collaboration and education, financial markets have been approaching milestones without major disruption. The UK transition from Sterling LIBOR to SONIA is the most advanced and will serve as a model for success for other jurisdictions. Globally, the widespread adoption of the ISDA protocol is an important milestone in ensuring a pathway forward for derivatives contracts. The CCPs have carefully laid out plans to transition futures contracts and cleared derivatives. Models have been upgraded to accommodate new data and analytics. Issuance utilizing new rates is growing. Workflows are being modified to incorporate these new rates and **workflow modification will be a major component of benchmark reform over the next several months**. We are supportive of the industry's work regarding the standardization of trading in ARRs, particularly the migration of default screens to reflect markets in SONIA and SOFR. The progress towards both New York State and a Federal legislative solution are significant milestones that provide contract continuity for tough legacy assets.

**Continued learning by market participants remains paramount to making informed, appropriate portfolio-level decisions throughout the transition.**

This is not to say all challenges have been resolved. We continue to recognize that there is not a "one size fits all" solution for every end user and the integration of new reference rates into the marketplace will continue to be a focus. The role that term rates and dynamic credit spreads will play in the system remain undetermined. When evaluating the role alternatives to LIBOR will play in a portfolio, the industry must evaluate construction, composition, and fit. Options pricing, a large amount of notional which has typically priced off LIBOR, will require recalibration. Internal models will continue to be updated across the industry to account for the transition away from LIBOR. **Continued education on these issues remains paramount to making informed, appropriate portfolio-level decisions throughout the transition.**

Importantly, in the US, while certain USD LIBOR settings have been extended to June 2023, this extension should not slow down transition efforts and new contracts should not reference LIBOR. **Market participants should continue assessing LIBOR exposures and actively transition away from LIBOR.**

## What to Expect from your Investment Adviser

BlackRock has developed tools and processes to enable investment teams to assess LIBOR exposures that mature after 2021 by currency and product. We've also partnered with data providers to complement our understanding of fallbacks or lack thereof in legacy cash products.

At the same time, we continue to encourage our investment teams to actively transition legacy LIBOR-linked contracts ahead of the cessation dates. Where feasible we have been engaged with issuers to convert LIBOR-linked securities to ARRs.

Following guidance from the Sterling RFR Working Group we have implemented blocks on any new GBP LIBOR linear derivatives and new loans, bonds or securitized products as of March 31, 2021, while encouraging portfolio managers to participate in ARR-linked new issuance. We plan to take a similar approach for other IBORs in accordance with guidance from the local regulators and industry working groups.

One key area of impact for our clients will be the changes to performance benchmarks linked to LIBOR. In selecting benchmarks to replace LIBOR in performance benchmarks we've taken into account relevant industry guidelines and recommendations, including the work undertaken by the FICC Markets Standards Board. Guiding principles in selecting a performance or risk benchmark replacement should take into consideration portfolio objectives and risk guidelines, as well as choosing reference indices prevalent in the marketplace and within securities. The alternative reference rates selected and recommended by the industry working groups convened by the central banks will in many cases be the appropriate benchmark rates to re-index performance benchmarks.

BlackRock is in the process of engaging with clients on changes to performance benchmarks and discussing the appropriate replacement rates for each client portfolio.

Clients should engage with BlackRock and other investment advisors to finalize replacement benchmarks and the related documentation prior to benchmark cessation.

## IBOR Conversion Process for Cleared Swaps

The CCP conversion of cleared swaps via the IBOR Fallbacks will be another critical milestone in the LIBOR retirement as it will allow for the transitioning of existing IBOR swaps to RFR OIS swaps shortly prior to the cessation date. This conversion process will be a complex and large market event which will require the coordination by the CCPs and collaboration by the market participants to overcome potential operational and risk management challenges. BlackRock continues to play a constructive role in providing feedback to the CCPs and via various industry forums.

We expect the CCP conversion of cleared derivatives to take place during the following weekends:

| Date | Conversion (Cleared Swaps) |
|---|---|
| 15-16 October 2021 | EONIA to €STR swap conversion |
| 3-4 December 2021 | LIBOR to RFR swap conversion (CHF, EUR, JPY) |
| 17-18 December 2021 | GBP LIBOR to SONIA swap conversion (GBP) |

## Key Takeaways and Recommendations

- Policymakers and the various Risk-Free Rate working groups should continue efforts on legislation and synthetic LIBOR settings to provide a pathway for tough legacy contracts to transition away from LIBOR.
- Market participants should, to the extent possible, not wait for the development of a forward-looking SOFR term rate and use existing tools to transition away from LIBOR.
- While the industry explores credit-sensitive options in the US, market participants should continue to transition to SOFR, as the ARRC-recommended risk-free rate.
- Regulators should ensure LIBOR is not used in new contracts beyond 2021.
- The need for global coordination is important because of the interconnectedness across products, sectors, and markets.
- Clients should engage with their investment advisors to finalize changes to LIBOR-linked risk and performance benchmarks prior to LIBOR cessation dates.
- **Education is key**. We will have a successful benchmark transition if all market participants are educated on all alternatives and options.

# Additional Resources

- BlackRock ViewPoint, "BlackRock's Guide to LIBOR Transition," published April 2020
- BlackRock *ViewPoint, "*LIBOR The Next Chapter," published in April 2018 and updated in April 2019
- ARRC website https://www.newyorkfed.org/arrc/sofr-transition
- ARRC, "Progress Report: The Transition from US Dollar LIBOR," March 2021
- ARRC Recommended Best Practices for Completing the Transition from LIBOR
- ARRC, "An Updated User's Guide to SOFR," February 2021
- Bank of England, RFR Working Group https://www.bankofengland.co.uk/markets/transition-to-sterling-to-risk-free-rates-from-libor
- European Central Bank https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates
- Bank of Japan https://www.boj.or.jp/en/paym/market/jpy_cmte/index.htm/
- Swiss National Bank https://www.snb.ch/en/ifor/finmkt/fnmkt_benchm/id/finmkt_reformrates
- CME Discounting Transition https://www.cmegroup.com/education/articles-and-reports/sofr-price-alignment-and-discounting-proposal.html
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19. FSB Publishes Global Transition Roadmap for LIBOR, October 16, 2020
20. FFIEC, "Joint Statement on Managing the LIBOR Transition," July 1, 2020
21. Board of Governors of the Federal Reserve System, FDIC, OCC, "Statement on LIBOR Transition," November 30, 2020. The Board of Governors of the Federal Reserve also issued a letter on March 9, 2021, "Assessing Supervised Institutions' Plans to Transition Away from the Use of LIBOR," providing guidance to assist examiners in assessing firms' progress in preparing for transitions. The guidance states, "Examiners should consider issuing supervisory findings and other supervisoryactions if a firm is not ready to stop issuing LIBOR-based contracts by December 31, 2021."
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