



# IBOR and Benchmark Reform Frequently Asked Questions

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We encourage you to keep up to date with the latest industry developments in relation to IBOR and benchmark reform and to consider their impact on your business, using independent professional advisors (financial, legal, tax, accounting or other) as you consider necessary. You should consider, and continue to keep under review, the potential impact of IBOR and benchmark reform on any existing product you have with Citi and/or any new product you enter into with Citi. The areas covered by these FAQs are continually evolving across multiple product areas and jurisdictions; you should consult the relevant sources. Links to some of the relevant working and industry groups are included throughout these FAQs.

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## Contents

RISK FREE RATES .....	5
1. How is each RFR calculated? How do they differ from IBORs? .....	5
2. What RFRs have been proposed as alternatives to IBORs? .....	5
3. Are there forward-looking term RFRs and, if so, when will these be introduced? .....	8
4. What type of RFR products is Citi currently offering? .....	9
THE BACKGROUND TO BENCHMARK TRANSITIONING .....	9
5. What is an IBOR rate? .....	9
6. Why are IBORs being reformed and/or why is a transition to alternative rates being proposed? 9	
7. Has the publication of representative LIBOR ceased? .....	10
8. When should new USD LIBOR and USD LIBOR-linked products cease? .....	11
9. When should new non-USD LIBOR products cease? .....	11
10. What is happening to the USD LIBOR ICE Swap Rate? .....	12
11. Are legislative solutions being considered to help the market transition away from IBORs? ....	12
SYNTHETIC LIBOR .....	14
12. What is synthetic GBP LIBOR? .....	14
13. Will the FCA compel publication of synthetic USD LIBOR? .....	15
14. How will synthetic 1M, 3M and 6M USD LIBOR settings be calculated? .....	16
15. What use of synthetic USD LIBOR is the FCA intending to permit? .....	16
16. Is synthetic JPY LIBOR still available? .....	16
17. Where can I find further information on synthetic LIBOR? .....	16
CUSTOMER ENGAGEMENT WITH BENCHMARK TRANSITIONING .....	17
18. How will my Citi portfolio be impacted by the discontinuation of any IBOR? .....	17
19. What happens if I do not amend my IBOR impacted contract? .....	17
20. What can I do to prepare for the transition away from IBORs? .....	17
21. What has Citi done so far in relation to IBOR transitioning? .....	18
FALLBACK LANGUAGE & LEGACY BUSINESS .....	18
22. Is there standardized fallback language? .....	18

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23. Why do we need spread adjustments and how will they be calculated in the various markets?	19
24. If parties adhere to the IBOR Protocol, which existing contracts would be amended? .....	20
25. Following adherence to the IBOR Protocol and the conversion of existing contracts from the impacted IBOR to its RFR alternative, what happens to the calculation of interest for a period that starts before and ends after an IBOR cessation date?.....	21
THE BENCHMARKS SUPPLEMENT .....	21
26. What is the Benchmarks Supplement? .....	22
27. What is the BMS Protocol? .....	22
28. How does the Benchmarks Supplement interact with the IBOR Supplement and the IBOR Protocol?.....	22
BMS PROTOCOL ADHERENCE .....	23
29. Who can adhere to the BMS Protocol? .....	23
30. What should I do if I do not want to adhere to the BMS Protocol? .....	23
31. How do I adhere to the BMS Protocol? .....	23
32. What about benchmark user transactions with Citi that are not documented under an ISDA master agreement? .....	24
33. What should I do if I would like to discuss this topic with Citi? .....	24
DEFINITIONS.....	25

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## RISK FREE RATES

### 1. How is each RFR calculated? How do they differ from IBORs?

RFRs are calculated on a different basis and are not like-for-like replacements for IBORs. IBORs are set at or prior to the commencement of the period to which they relate, allowing certainty during such a period as to the amounts which will be due at the end of that period. Taking LIBOR as an example, set out below is a non-exhaustive list of the differences between LIBOR and RFRs.

- LIBOR is a term rate benchmark across multiple tenors (O/N, 1W, 1M, 2M, 3M, 6M, 12M), whereas RFRs are overnight rates with no term element;
- LIBOR is a forward-looking rate, whereas RFRs are backward-looking rates;
- LIBOR contains a premium for bank credit and term liquidity risk. In contrast, while the precise nature of each RFR may vary, in general the RFRs contain little or no such additional premiums because they are overnight and sometimes secured; and
- For each LIBOR currency, the replacement RFR would have both distinct characteristics and a distinct RFR administrator, whereas LIBOR is administered by a single administrator for all currencies, according to a single set of characteristics.

### 2. What RFRs have been proposed as alternatives to IBORs?

Various authorities and industry working groups have identified certain RFRs as alternatives or fallbacks for IBORs and/or have considered how existing benchmark rates might be reformed in accordance with applicable regulation. For each existing IBOR and the alternative RFR, the proposals are at different stages and some continue to evolve.

You are encouraged to continue to keep under review the potential impact of current and future changes to the reference rate of financial products relevant to your portfolio and the services you receive, together with the fallback language used in contracts which reference an IBOR which has been discontinued. You should consider seeking independent professional advice (legal, tax, accounting, financial or other) as you consider necessary.

The table below sets out IBORs for fifteen currencies and corresponding RFRs which have been identified as fallback rates to ISDA and financial institutions by regulators and industry working groups as of the date of these FAQs. This is not an exhaustive list.

COUNTRY	IBOR RATE	STATUS	ALTERNATIVE RFR	TRANSITION COMMITTEE WEBSITE
United States	USD LIBOR: 1W and 2M tenors	Ceased after December 31, 2021		<a href="#">Alternative Reference Rates Committee (ARRC)</a>

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	USD LIBOR: Overnight and 12M tenors	Cessation after June 30, 2023 <sup>#</sup>	SOFR <sup>1</sup>	
	USD LIBOR: 1M, 3M and 6M tenors	Unrepresentative after June 30, 2023 <sup>#</sup>		
<b>United Kingdom</b>	GBP LIBOR	Ceased or unrepresentative after December 31, 2021 <sup>†</sup>	SONIA	<a href="#">Sterling Working Group on Risk-Free Rates</a>
<b>Japan</b>	TIBOR	Reformed and expected to continue <sup>2</sup>	TONA	<a href="#">JBA TIBOR Administration Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks</a>
	JPY LIBOR	Ceased or unrepresentative after December 31, 2021	TONA	
	Euroyen TIBOR	Reformed but at risk of ceasing	TONA	
<b>Europe</b>	EUR LIBOR	Ceased after December 31, 2021	€STR / EuroSTR	<a href="#">ECB Working Group on Euro Risk-Free Rates European Money Markets Institute (EMMI) and Euro RFR Working Group</a>
	EURIBOR	Reformed and expected to continue	€STR / EuroSTR	
<b>Canada</b>	CDOR	6M and 12M tenors ceased to be published after May 14, 2021  All remaining tenors will <u>cease</u>	CORRA (CDOR will continue to be published in tandem with CORRA pending full CDOR cessation)	<a href="#">Canadian Alternative Reference Rate Working Group (CARR)</a>

<sup>1</sup> See [ARRC website](#) for specific recommendations for 1W and 2M tenors based on type of contract

<sup>2</sup> 1W, 1M, 3M, 6M, and 12M tenors or TIBOR continue to be published.

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		following June 28, 2024		
<b>Switzerland</b>	CHF LIBOR	Ceased after December 31, 2021	SARON	<a href="#">The National Working Group on Swiss Franc Reference Rates</a>
<b>Australia</b>	BBSW	Reformed (and to continue)	RBA Cash Rate (AONIA) (existing alongside BBSW)	<a href="#">Australian Financial Markets Association</a>
<b>New Zealand</b>	BKBM	Reformed (and to continue)	RBNZ Cash Rate (NZONIA) (existing alongside BKBM)	<a href="#">New Zealand Financial Markets Association</a>
<b>Hong Kong</b>	HIBOR	Reformed (and to continue)	HONIA (this rate to exist alongside HIBOR)	<a href="#">Treasury Markets Association's Market Practices Committee</a>
<b>India</b>	MIFOR	Cessation after June 30, 2023 (Proposed by Benchmark Administrator)	Modified MIFOR*	<a href="#">Financial Benchmarks India Pvt Ltd</a>
<b>Singapore</b>	SOR	Cessation after June 30, 2023	SORA*	<a href="#">Steering Committee for SOR Transition to SORA</a>
<b>Thailand</b>	THBFIX	Cessation after June 30, 2023	THOR*	<a href="#">Steering Committee on Commercial Banks' Preparedness on LIBOR Discontinuation</a>
<b>Philippines</b>	PHIREF	Cessation after June 30, 2023	PHIREF 2.0^	<a href="#">Bankers Association of the Philippines</a>
<b>Malaysia</b>	KLIBOR	Expected to continue (but 2M and 12M tenors to cease from	MYOR	<a href="#">Financial Markets Committee</a>

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		January 1, 2023 while 1M, 3M and 6M tenors to be reviewed in second half of 2022)		
Israel	TELBOR	TELBOR to be replaced by Bank of Israel interest rate in derivative transactions after June 30, 2023	Bank of Israel interest rate	<a href="#">Bank of Israel</a>

<sup>†</sup> Subject to the continued publication of non-representative synthetic 1M, 3M and 6M GBP LIBOR settings.

Publication of GBP LIBOR 1M and 6M synthetic settings ceased on March 31, 2023 and publication of the 3M synthetic setting is expected to cease at the end of March 2024.

<sup>#</sup> Subject to the continued publication of non-representative synthetic 1M, 3M and 6M USD LIBOR settings. The FCA intends that publication of USD LIBOR 1M, 3M and 6M synthetic settings will cease on September 30, 2024.

<sup>\*</sup> Modified MIFOR, SORA and THOR will not be implemented as the contractual fallback rates.

<sup>^</sup> Bankers Association of the Philippines will only provide PHIREF 2.0 rates for the Overnight, 1M, 3M and 6M tenors.

### 3. Are there forward-looking term RFRs and, if so, when will these be introduced?

As LIBOR and other IBORs are forward-looking term rates available in a number of tenors, industry working groups have developed a number of forward-looking RFR-derived term rates. The FSB has emphasized that there are limitations to RFR-derived term rates, which may mean they are not a suitable choice in some markets<sup>3</sup>.

By way of example:

- In the US, the ARRC has formally recommended the CME Group’s forward-looking Secured Overnight Financing Rate (SOFR) term rates (“SOFR Term Rates”). Further detail is available in CME’s [FAQs](#) and [IOSCO Compliance Statement](#). The ARRC has also published its [conventions](#) and [use cases](#) for SOFR Term Rates. In particular, the ARRC has announced that it does not support the use of SOFR Term Rates for derivatives markets, except for end-users facing derivatives intended to hedge cash products that reference the SOFR Term Rate. The CME has also published [FAQs](#) in relation to the use of the CME SOFR Term Rates, with particular regard to its licensing terms and restrictions on use similar to the ARRC recommendations. The 2021 ISDA Interest Rate Derivatives Definitions include a definition of “USD-SOFR CME Term”.

<sup>3</sup> FSB Interest rate benchmark reform – overnight risk-free rates and term rates (July 12, 2018) at: <https://www.fsb.org/wp-content/uploads/P120718.pdf>

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- In Japan, QUICK Benchmarks Inc. (QBS) has been publishing the Tokyo Term Risk-Free Rate (“TORF”) production rate since April 2021. The 2021 ISDA Interest Rate Derivatives Definitions include a definition of “JPY- TORF QUICK”.
- In the UK, ICE Benchmark Administration and Refinitiv both publish term SONIA reference rates (“TSSRs”). The Bank of England Sterling Risk-Free Rate Working Group’s (“RFRWG”) Term Rate Use Case Task Force has published comparative detail on the IBA and Refinitiv TSSRs ([here](#)). The FMSB, the FCA and the RFRWG have each made it clear that they expect the use of TSSRs to be relatively limited. The 2021 ISDA Interest Rate Derivatives Definitions include definitions of “GBP-SONIA ICE Term” and “GBP-SONIA Refinitiv Term”.

The [National Working Group on Swiss Franc Reference Rates](#) do not recommend the use of a forward-looking term RFR.

#### **4. What type of RFR products is Citi currently offering?**

Citi is a liquidity provider for certain new and existing RFRs and can continue to offer assistance in transitioning any of your unremediated LIBOR portfolio into new RFRs and/or can transact directly with you using RFRs. If you are interested in these products, please reach out to [iborg@citi.com](mailto:iborg@citi.com) or your Citibank representative for product availability and timelines for transition.

## **THE BACKGROUND TO BENCHMARK TRANSITIONING**

#### **5. What is an IBOR rate?**

IBOR stands for "interbank offered rate" and "IBORs" is a general description for a number of different interest rate benchmarks that historically derive from the rate at which banks could borrow from other banks in particular markets and currencies. LIBOR (the London interbank offered rate) and EURIBOR (the Euro interbank offered rate) are both examples of IBORs.

IBORs are used to determine a range of interest rate benchmarks in a number of financial products and are used in a wide variety of markets.

#### **6. Why are IBORs being reformed and/or why is a transition to alternative rates being proposed?**

IBORs are generally determined by quotes submitted to the applicable benchmark administrator by panel banks. These submissions are intended to be based on actual transactions in the interbank market. However, over time banks have shifted away from unsecured interbank lending in favor of alternative funding models. As a result, the number of transactions underpinning a variety of IBORs has reduced, making many of the rates heavily reliant on "expert judgement" from the panel banks submitting the quotes that determine the rates.

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This has led to various regulatory authorities, including the UK’s Financial Conduct Authority (“FCA”), forming the view that a range of IBORs, including LIBOR, need to be replaced or reformed.

**7. Has the publication of representative LIBOR ceased?**

- a) Immediately after December 31, 2021, the following LIBOR settings permanently **ceased**:
  - i. all EUR and CHF LIBOR settings;
  - ii. the overnight / spot next, 1W, 2M and 12M GBP and JPY LIBOR settings; and
  - iii. the 1W and 2M USD LIBOR settings.
- b) Immediately after December 31, 2021, the 1M, 3M and 6M GBP and JPY LIBOR settings were designated as Article 23A benchmarks under the UK Benchmarks Regulation (“UK BMR”) by the FCA, meaning they became permanently **unrepresentative** of the underlying market they seek to measure and would be calculated using a different synthetic methodology for a limited time (together with the LIBOR settings described in (a) above, the “**30 LIBOR Settings**”). synthetic JPY LIBOR ceased permanently at the end of 2022, while publication of GBP LIBOR 1M and 6M synthetic settings ceased on March 31, 2023. Publication of the GBP LIBOR 3M synthetic setting is expected to cease at the end of March 2024.
- c) Overnight and 12M USD LIBOR settings **will continue** to be calculated using panel bank submissions until June 30, 2023 after which date publication of such settings will permanently cease.
- d) 1M, 3M and 6M USD LIBOR settings **will continue** to be calculated using panel bank submissions until June 30, 2023. The FCA has announced that it will require IBA to **continue publishing** the 1M, 3M and 6M USD LIBOR settings using an **unrepresentative synthetic methodology** for a short period. The FCA intends for publication of such settings to cease on September 30, 2024.

As of January 4, 2022, an “Index Cessation Effective Date” has occurred under the IBOR Supplement and the ISDA 2020 IBOR Fallbacks Protocol (the “IBOR Protocol”) in respect of the 30 LIBOR Settings, each of which were triggered by the FCA’s March 5, 2021 announcement (the “[FCA LIBOR Announcement](#)”). Derivative contracts that were remediated by the IBOR Protocol therefore started using the relevant fallback rates set out in the IBOR Supplement.

We would encourage you to assess the impact of the cessation or permanent unrepresentativeness of the 30 LIBOR Settings on your portfolio and to take appropriate independent professional advice (legal, tax, accounting, financial or other).

The below table provides a summary of each LIBOR setting, and its respective last publication or last publication on a representative or non-representative basis (as applicable):

LIBOR Currency	LIBOR Settings	Last Date of Publication/ Representativeness	Non-Representative, Synthetic Publication
USD	Overnight and 12M	June 30, 2023	N/A
USD	1-week and 2M	December 31, 2021	N/A

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USD	1M, 3M and 6M	June 30, 2023	Expected from June 30, 2023 through September 30, 2024 <sup>#</sup>
GBP	Overnight, 1-week, 2M and 12M	December 31, 2021	N/A
GBP	1M and 6M	December 31, 2021	January 1, 2022 <sup>†</sup> through March 31, 2023 <sup>**</sup>
GBP	3M	December 31, 2021	Expected January 1, 2022 <sup>†</sup> through March 31, 2024 <sup>**</sup>
JPY	Spot next, 1-week, 2M and 12M	December 31, 2021	N/A
JPY	1M, 3M and 6M	December 31, 2021	January 1, 2022 <sup>†</sup> through December 31, 2022
EUR, CHF	All settings	December 31, 2021	N/A

<sup>#</sup> The FCA has confirmed the continued publication of non-representative, synthetic 1M, 3M and 6M USD LIBOR settings.

The FCA intends that publication of USD LIBOR 1M, 3M and 6M synthetic settings will cease on September 30, 2024.

<sup>†</sup> Note that January 4, 2022 was the first date that synthetic GBP and JPY LIBOR was published by the IBA.

<sup>\*\*</sup> Publication of GBP LIBOR 1M and 6M synthetic settings ceased on March 31, 2023 and publication of the 3M synthetic setting is expected to cease at the end of March 2024.

The permanent cessation of overnight and 12M USD LIBOR after June 30, 2023 (with the remaining settings being non-representative after this date) has (or will) impact various rates that either directly or indirectly reference USD LIBOR. In order to prepare for this discontinuation, you should consider which contracts are affected and the potential application of RFRs as proposed by relevant industry groups and trade associations. You should consider seeking independent professional advice (legal, tax, accounting, financial or other) as appropriate.

## 8. When should new USD LIBOR and USD LIBOR-linked products cease?

Citi continues to align with regulatory guidance and legislation and expects that any client requests to enter into new USD LIBOR contracts will fall within the limited permissible circumstances described by regulators<sup>4</sup>.

## 9. When should new non-USD LIBOR products cease?

New use of any LIBOR setting that has ceased to be published is no longer possible.

New use of the permanently unrepresentative 3M GBP LIBOR setting during its period of publication is subject to regulatory restrictions on new use. The FCA has stated that from January 1, 2022, any new use of synthetic GBP LIBOR settings (now only synthetic 3M GBP LIBOR continues to be published)

<sup>4</sup> US regulatory statements available [here](#) and [here](#). UK regulatory statement available [here](#).

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by UK supervised entities is prohibited without exception. Citi does not use synthetic LIBOR in any new contracts from January 1, 2022.

## 10. What is happening to the USD LIBOR ICE Swap Rate?

The USD LIBOR ICE Swap Rate (sometimes referred to as the CMS (constant-maturity swap) rate) is calculated by reference to USD LIBOR swaps. Once USD LIBOR is permanently discontinued or non-representative, it will not be possible for IBA, as the administrator of the USD LIBOR ICE Swap Rate, to continue to publish this rate. On 14th November 2022 IBA confirmed that it will cease the publication of all USD LIBOR ICE Swap Rate benchmark “runs” (i.e. USD LIBOR Rates 1100, USD LIBOR Spreads 1100 and USD LIBOR 1500) for all tenors immediately after publication on June 30, 2023.

In order to prepare for this, you should consider which contracts are affected and ensure such contracts have adequate fallback<sup>5</sup> or alternative provisions to deal with this discontinuation. Note that contracts that use the USD LIBOR ICE Swap Rate will not be affected by the LIBOR Act or synthetic USD LIBOR, each of which only cover USD LIBOR<sup>6</sup>. Failing to amend your impacted contracts may lead to unintended economic and operational consequences. You should consider seeking independent professional advice (legal, tax, accounting, financial or other) as appropriate.

## 11. Are legislative solutions being considered to help the market transition away from IBORs?

Legislative measures have been developed and passed into law in a number of jurisdictions.

Legislation has been passed in the United States at the federal level<sup>7</sup>. The EU<sup>8</sup> and UK<sup>9</sup> have also passed legislation.

Generally, these legislative solutions are designed to target “tough legacy” contracts i.e. LIBOR contracts which: (1) have either no LIBOR fallbacks or no suitable LIBOR fallbacks and (2) which are difficult or impossible to transition (either by active remediation to a new rate or by the inclusion of suitable fallbacks). To the extent a LIBOR contract can be practically amended, “active remediation” is preferred to relying on the legislation. This is in line with regulatory expectations.

### U.S. Federal Legislation

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<sup>5</sup> Please see question 22 for further information regarding the IBOR Protocol and fallbacks for the USD LIBOR ICE Swap Rate.

<sup>6</sup> Please see questions 11 to 17 for further information on the LIBOR Act and synthetic LIBOR.

<sup>7</sup> Division U – Adjustable Interest Rate (LIBOR) Act ([link here](#)) of the Consolidated Appropriations Act, 2022, passed by the US Congress and signed by the President on March 15, 2022.

<sup>8</sup> [EU \(Regulation \(EU\) 2021/168 of the European Parliament and of the Council amending Regulation \(EU\) 2016/1011 \(EU BMR\), dated 10 February 2021 \(and effective from 13 February 2021\)\)](#)

<sup>9</sup> <https://www.legislation.gov.uk/ukpga/2021/22/contents/enacted>

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The U.S. federal legislation (the “LIBOR Act”) involves replacing USD LIBOR with a Federal Reserve Board (the “Board”) recommended SOFR-based benchmark replacement rate (which can differ by contract / product type) (the “Board Replacement”) by operation of law in contracts where there is no fallback or where a fallback identifies neither a specific alternative rate nor a determining party.

On December 16, 2022, the Board adopted a final rule (the “Final Rule”)<sup>10</sup> which contains the Board Replacement for each set of in-scope contracts, as follows:

- Derivatives will use the “Fallback Rate (SOFR)” identified in the IBOR Protocol<sup>11</sup>;
- All other in-scope contracts (other than consumer loans, Federal Home Loan Bank advances, Federal Housing Finance Agency (FHFA)-regulated-entity contracts, or FFELP ABSs as described below), will use:
  - For overnight USD LIBOR, SOFR plus the relevant static spread adjustment in the LIBOR Act;
  - For 1M, 3M, 6M, and 12M USD LIBOR, the corresponding CME Term SOFR plus the relevant static spread adjustment in the LIBOR Act.
- Consumer Loans will also use SOFR (for overnight USD LIBOR) and the corresponding CME Term SOFR (for 1M, 3M, 6M, and 12M USD LIBOR) but will have a one year “transition spread adjustment” that transitions linearly for each business day during that one-year period.
- Different Benchmark Replacements apply to Federal Family Education Loan Program asset backed securitizations (FFELP ABS) and FHFA-regulated entity contracts.

The LIBOR Act also:

- overrides dealer-poll fallbacks for USD LIBOR and any fallback to the last USD LIBOR fixing;
- contains a safe harbor from liability for the selection and use of the recommended benchmark replacement;
- provides that a party to a contract will be prohibited from declaring a breach or refusing to perform as a result of another party’s selection or use of the recommended benchmark replacement rate;
- identifies specific conforming changes to be applied when the Board Replacement becomes the benchmark replacement for a LIBOR contract; and
- supersedes any similar State or local laws, rules or regulations of the United States.

The LIBOR Act does not affect contracts governed by laws other than the laws of the United States or override fallbacks to non-USD LIBOR rates (e.g. PRIME or FedFunds). Given the LIBOR Act only covers USD LIBOR, the LIBOR Act will not apply to contracts referencing the USD LIBOR ICE Swap Rate.

## **EU Legislation**

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<sup>10</sup> The Final Rule is available [here](#). The Final Rule will be effective 30 days after publication of the Final Rule in the Federal Register.

<sup>11</sup> Please see question 22 for further information regarding the IBOR Protocol.

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The EU legislation involves replacing the relevant rate with a replacement rate by operation of law. The relevant replacement rates have now been selected or recommended in accordance with the terms of the legislation for the EU legislation (in respect of CHF LIBOR and EONIA only), as follows. In October 2021, the final implementing acts for the EU legislation were published in the Official Journal of the EU<sup>12</sup>:

- a. In respect of CHF LIBOR - to designate “last reset” (i.e. of the relevant period preceding the interest period concerned) compounded SARON plus the ISDA spread adjustment as the replacement for 1M, 3M, 6M and 12M CHF LIBOR. Note that the implementing act replaces 6M and 12M CHF LIBOR with the SARON 3M Compound Rate. The implementing act applied as of January 1, 2022; and
- b. In respect of EONIA - to designate EuroSTR + 8.5bps as the statutory replacement rate for EONIA as of January 3, 2022.

### **UK Legislation**

In contrast to the U.S. and EU legislation, the UK legislation permits the FCA to direct a methodology change for LIBOR and, consequently, certain LIBOR settings<sup>13</sup> continue to exist with a modified methodology (so called “synthetic LIBOR”<sup>14</sup>). These settings are published on the same screen page currently referenced by contracts globally. Under the UK legislation, the FCA is also able to prohibit use of “synthetic LIBOR” (for supervised entities) whilst permitting temporary limited continued use in certain contracts (i.e. legacy contracts). Note that synthetic LIBOR will not be relevant for contracts referencing the USD LIBOR ICE Swap Rate.

We encourage you to review relevant legislation, consider the impact of such legislation on your contracts and obtain professional independent advice (legal, financial or otherwise) where necessary.

## SYNTHETIC LIBOR

### 12. What is synthetic GBP LIBOR?

To help avoid disruption to legacy contracts that reference the **1M, 3M and 6M GBP LIBOR settings**, the FCA [used its powers](#) to require the LIBOR benchmark administrator to continue to publish these

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<sup>12</sup> See Commission Implementing Regulation (EU) 2021/1847 in respect of CHF LIBOR and Commission Implementing Regulation (EU) 2021/1848 in respect of EONIA.

<sup>13</sup> 3M setting for GBP LIBOR which the FCA intends to require publication of until end March 2024. The FCA has also confirmed the publication of synthetic 1M, 3M and 6M USD LIBOR settings from June 30, 2023 and this is expected to continue until September 30, 2024. Synthetic yen LIBOR ceased permanently at the end of 2022 and the 1M and 6M settings for GBP LIBOR ceased publication at end March 2023.

<sup>14</sup> Please see questions 12-17 for further information regarding synthetic LIBOR.

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settings using a changed or synthetic methodology for a limited time. The methodology used does not rely on submissions from panel banks but instead uses:

- forward-looking term versions of the relevant risk-free rate, plus
- the respective ISDA fixed spread adjustment.

The FCA initially stated that synthetic LIBOR will not be published indefinitely and that firms should be amending their contracts wherever practicable to remove reliance on LIBOR.

- Synthetic 1M and 6M GBP LIBOR ceased to be published at the end of March 2023; and
- Synthetic 3M GBP LIBOR is expected to cease to be published after March 2024.

For certain entities and contracts, the use of synthetic GBP LIBOR is subject to regulatory restrictions<sup>15</sup>. Even where a contract is able to use synthetic GBP LIBOR, alignment with supervisory expectation may be relevant. Citi continues to pursue active transition of contracts currently referencing synthetic GBP LIBOR wherever possible. Further, Citi does not use synthetic LIBOR in any new contracts.

If relevant to you, you should obtain your own independent professional advice (legal, tax, accounting, financial or other) on the use of synthetic LIBOR.

### 13. Will the FCA compel publication of synthetic USD LIBOR?

The FCA has confirmed that it will require publication of **1M, 3M and 6M USD LIBOR settings** under a synthetic methodology after June 30, 2023. The FCA intends to require publication until September 30, 2024. The FCA has made it clear that publication of synthetic USD LIBOR is only a temporary bridge, and synthetic settings will not continue simply for the convenience of those who could have transitioned their contracts but have not done so.

The FCA's view, is that a further 15 months after end-June 2023 should provide sufficient extra time for an orderly wind-down.

The FCA has confirmed that overnight and 12M USD LIBOR settings will cease permanently after final publication on June 30, 2023. The FCA is not proposing to require the publication of a synthetic rate for these tenors. Note that synthetic USD LIBOR will not be relevant for contracts referencing the USD LIBOR ICE Swap Rate.

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<sup>15</sup> The FCA published a notice permitting all legacy "use" of the synthetic GBP LIBOR rates from January 1, 2022 by supervised entities (as such term is defined in the UK BMR) other than in cleared derivatives. The FCA has stated that all other use is prohibited and that they may revisit the scope of permitted legacy use in the future.

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#### 14. How will synthetic 1M, 3M and 6M USD LIBOR settings be calculated?

The FCA confirmed that it will require LIBOR's administrator to calculate these synthetic rates using a:

- forward-looking term rate derived from the relevant CME Term SOFR Reference Rate, plus
- the respective ISDA fixed spread adjustment (i.e. for the 1M, 3M, and 6M USD LIBOR setting).

#### 15. What use of synthetic USD LIBOR is the FCA intending to permit?

For certain entities and contracts, the use of synthetic USD LIBOR is subject to regulatory restrictions<sup>16</sup>. Even where a contract is able to use synthetic USD LIBOR, alignment with supervisory expectation may be relevant. Citi intends to continue to pursue active transition of contracts currently referencing USD LIBOR wherever possible. Further, Citi does not intend to use synthetic USD LIBOR in any new contracts.

#### 16. Is synthetic JPY LIBOR still available?

No. The FCA compelled the LIBOR benchmark administrator to continue to publish the 1M, 3M and 6M JPY LIBOR settings after end-2021 on a synthetic basis, for one additional year. Consequently, publication of these settings ceased permanently immediately after final publication on December 30, 2022.

#### 17. Where can I find further information on synthetic LIBOR?

The FCA has released several publications related to LIBOR.

- Questions and answers relating to LIBOR cessation and the FCA's powers under UK BMR, including implementing synthetic LIBOR can be found on: <https://www.fca.org.uk/markets/about-libor-transition/libor-and-fcas-powers-under-uk-benchmarks-regulation-questions-and-answers>
- Further information on the changes to LIBOR as of end 2021 can be found on: <https://www.fca.org.uk/news/news-stories/changes-libor-as-of-end-2021>

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<sup>16</sup> The FCA will permit legacy use of any synthetic USD LIBOR setting in all contracts except cleared derivatives (whether directly or indirectly cleared). From July 1 2023, all new use of synthetic US dollar LIBOR will be prohibited under UK BMR. The synthetic settings are intended for use in legacy contracts only, to help ensure an orderly wind-down of LIBOR.

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- Information on the FCA synthetic US dollar LIBOR decision can be found on: <https://www.fca.org.uk/news/news-stories/fca-announces-decision-synthetic-us-dollar-libor>
- Information on the FCA's winding down of synthetic sterling LIBOR can be found on: <https://www.fca.org.uk/publications/consultation-papers/cp22-11-winding-down-synthetic-libor-us-dollar-libor>

For further information in relation to the transition of any of your contracts referencing synthetic LIBOR you should contact your Citi representative or [IBORQ@citi.com](mailto:IBORQ@citi.com).

## CUSTOMER ENGAGEMENT WITH BENCHMARK TRANSITIONING

### 18. How will my Citi portfolio be impacted by the discontinuation of any IBOR?

Citi has completed or is currently in the process of remediating legacy IBOR-impacted contracts prior to the relevant cessation dates and in line with regulatory guidance. There are various industry standards for alternative RFRs to facilitate this remediation process, and Citi will continue to follow these industry standards consistently wherever practicable (for example, Citi has adhered to the IBOR Protocol). However, industry-working groups may not be able to provide appropriate fallback language and RFR transition solutions for each impacted product in different markets. We would encourage you to take appropriate independent professional advice (legal, tax, accounting, financial or other) so that you understand the impact of the discontinuation of any IBOR on your portfolio with Citi and your business more generally.

### 19. What happens if I do not amend my IBOR impacted contract?

This will depend on many things, including the contractual provisions for the financial product or service and the alternative RFR solutions available. Failing to amend your IBOR impacted contracts may lead to unintended economic and operational consequences.

You should review your portfolio carefully and consider seeking independent professional advice (legal, tax, accounting, financial or other) as appropriate.

### 20. What can I do to prepare for the transition away from IBORs?

We encourage you to keep up to date with the latest industry developments in relation to benchmark transitioning (e.g. monitoring the announcements of industry working groups, trade associations and international bodies, such as IOSCO, and the relevant product groups) and to consider their impact on your own business, using independent professional advisors (legal, tax, accounting, financial or other) as appropriate.

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For example, the ARRC in its [Best Practices for Completing the Transition to LIBOR](#) have suggested that impacted institutions establish a clear IBOR transition plan.

For further detail and guidance on how to prepare for transitioning to certain RFRs, see:

- [here](#) for the ARRC's Internal Systems & Processes: Transition Aid for SOFR Adoption; and
- [here](#) for the ARRC's Practical Implementation Checklist for SOFR Adoption in relation to SOFR.

## 21. What has Citi done so far in relation to IBOR transitioning?

Citi has completed or is currently in the process of remediating legacy IBOR-impacted contracts prior to the relevant cessation dates and in line with regulatory guidance. We are actively engaged with clients in relation to IBOR reform, through a variety of initiatives such as webinars, client outreaches and client conversations. We are keen to support our clients by helping to facilitate their transition plans and continue to develop our product offerings to ensure we are able to offer a full range of transition solutions.

We are also actively involved in industry efforts to manage the transition from IBORs. Citi has also set up an IBOR governance and implementation program and remains focused on identifying and addressing the transition impact to our operational capabilities and financial contracts, among others.

## FALLBACK LANGUAGE & LEGACY BUSINESS

### 22. Is there standardized fallback language?

There are a range of market standard fallbacks which existed prior to IBOR discontinuation in order to cater for a temporary pause in availability of the relevant IBOR rate (for example due to market disruption). These fallbacks may already be included in your contracts and may operate differently for different rates as applied to various financial products. You should review your documentation closely to determine the position for each contract in your portfolio, in relation to existing or legacy products, as well as for any new products you are considering entering into.

#### **ISDA**

Fallback provisions in the unamended 2006 ISDA Definitions (which are standard terms often incorporated into interest rate derivatives pre January 25, 2021) were drafted primarily for a temporary cessation of an IBOR (e.g. many ISDA definitions require quotes to be obtained from certain reference banks if the applicable reference rate is not available).

In this context, and at the request of the Financial Stability Board's Official Sector Steering Group, ISDA produced more robust fallback language (the "ISDA IBOR Fallbacks") for certain key IBORs which will replace the Relevant IBOR with an adjusted RFR on the date on which the Relevant IBOR is discontinued (or, in the case of certain Relevant LIBORs, is deemed non-representative).

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As part of this initiative, ISDA has updated the 2006 ISDA Definitions through Supplement 70 (the “IBOR Supplement”) to include the ISDA IBOR Fallbacks (subsequently included in the [2021 ISDA Interest Rate Derivatives Definitions](#), published October 4, 2021).

The IBOR Supplement launched on October 23, 2020 and became effective 3 months thereafter on January 25, 2021. All derivative transactions that are traded on or following January 25, 2021 that incorporate the 2006 ISDA Definitions now include this fallback language.

ISDA also published the IBOR Protocol at the same time as the IBOR Supplement, which allows adhering parties to include the ISDA IBOR Fallbacks in certain existing covered contracts with other adhering parties. The IBOR Protocol is still open for adherence for any firm that has not yet done so. Given the 30 LIBOR Settings have now ceased or become permanently unrepresentative, the agreement to include the fallback language in the IBOR Supplement in respect of those 30 LIBOR Settings would come into effect immediately upon your adherence, and your contract would reference the relevant fallback rate.

In addition to the IBOR Supplement, ISDA published Supplement 75 to assist parties with alternative compounding and averaging calculations for new RFR-referencing derivatives. This will provide parties with the optionality to align the RFR calculations used in derivatives more closely with those used in cash products, in particular for hedging purposes. The FAQs for Supplement 75 can be found [here](#).

In respect of fallbacks for derivatives that reference ICE Swap Rates, ISDA has also published Supplement 82, which contains a fallback for derivatives referencing the GBP LIBOR ICE Swap Rate. ISDA has also published Supplement 88 related to fallbacks for the USD LIBOR ICE Swap Rate and JPY LIBOR Tokyo Swap Rate. The FAQs can be found [here](#).

ISDA published the [June 2022 Benchmark Module](#) for the purposes of the ISDA 2021 Fallbacks Protocol. It enables parties to Protocol Covered Documents which incorporate or reference the USD LIBOR Swap Rate as defined in a “Covered ISDA Definitions Booklet” (as defined therein) to amend the terms of each such Protocol Covered Document to include the relevant defined term included in either version 3.0 of the 2021 Definitions or Supplement 88 to the 2006 Definitions.

### **ARRC**

For cash products, the ARRC has provided recommended fallback language for USD LIBOR-referencing contracts across a range of different asset classes, including loans, securitizations and floating rate notes (all available on the [ARRC Fallback Contract Language](#) webpage). Specifically for loans, the LSTA and LMA have provided standardized fallbacks.

## **23. Why do we need spread adjustments and how will they be calculated in the various markets?**

As set out previously, various components of IBORs are not included in the RFRs.

### **Derivatives**

Following consultation with its members, ISDA developed RFR fallbacks for derivatives based on:

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- (i) an adjustment to the RFR using the “compounded setting in arrears rate” - this addresses the difference between IBORs as forward-looking term rates and RFRs as overnight rates; and
- (ii) a spread adjustment using the “historical median approach” - this addresses bank credit risk and liquidity risk and aims at reducing value transfer upon transition to the fallback rate.

The “compounded setting in arrears rate” is the relevant RFR observed over a period of time generally equal to the relevant IBOR tenor being replaced (i.e. three months for three month USD or GBP LIBOR) and compounded daily during that period. The “historical median approach” involves applying a spread adjustment based, amongst other things, on the median spot spread between the relevant IBOR and the adjusted RFR over a static five-year lookback period prior to the fallback being triggered. The spread adjustment is calculated separately for each IBOR tenor.

These adjustments are combined to produce ‘all-in’ fallback rates referenced in ISDA’s amended 2006 Definitions. Bloomberg was selected to calculate and publish the adjustments and ‘all-in’ fallback rates.

On March 5, 2021, ISDA confirmed that, following the FCA’s announcement in relation to the permanent cessation and non-representativeness of all LIBOR settings, the “Spread Adjustment Fixing Date” had occurred and, accordingly, the credit spread adjustment had been fixed for all 35 LIBOR settings under the Bloomberg IBOR Fallback Rate Adjustments Rulebook. On such date, Bloomberg published the fixed spread adjustment as calculated in respect of each IBOR tenor (available [here](#)).

### **Cash Products**

Further to relevant market consultations, the ARRC has recommended that spread adjustment calculations for cash products align with the ISDA calculation methodology, i.e. based on the historical median approach noted above. However, parties may need to assess whether existing impacted contracts already provide for spread adjustment calculations and how these calculations would be applied to RFRs. The ARRC’s recommended methodology is for market participants’ voluntary use, to produce spread adjustments intended for USD LIBOR contracts that have incorporated the ARRC’s recommended hardwired fallback language, or for legacy USD LIBOR contracts where a spread-adjusted Secured Overnight Financing Rate (SOFR) can be selected as a fallback.

## **24. If parties adhere to the IBOR Protocol, which existing contracts would be amended?**

Following adherence, the IBOR Protocol would apply the ISDA IBOR Fallbacks to a broad range of existing ISDA and non-ISDA documents – including master agreements, credit support documents and related confirmations (together, “Protocol Covered Documents”) that:

- incorporate an ISDA IBOR Protocol Covered Booklet;

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- reference an IBOR included in the scope of the IBOR Protocol (a “Relevant IBOR”) as defined in an ISDA IBOR Protocol Covered Booklet; or
- reference a Relevant IBOR howsoever defined (for instance “LIBOR”).

Adherence to the IBOR Protocol is expected to reduce the complexity of contract repapering, improve contractual robustness and promote global consistency, and as such, Citi entities globally:

- (i) have adhered to the IBOR Protocol, such that the ISDA IBOR Fallbacks now apply to existing derivative contracts with other adhering parties; and
- (ii) are incorporating the IBOR Supplement into any new derivative contracts (such incorporation occurring automatically from January 25, 2021 for all new trades referencing the 2006 ISDA Definitions).

To the extent that you have not already adhered to the IBOR Protocol, we encourage you to review which existing documents in your portfolio would be Protocol Covered Documents, the suitability of any amendment made by the IBOR Protocol to those documents and the effectiveness of the amendment for any non-ISDA Protocol Covered Document and to consider whether to adhere. You should consider seeking independent professional advice (legal, tax, accounting, financial or other) as appropriate.

Incorporation of the IBOR Protocol via bilateral adoption is offered by Citi for those clients who prefer not to adhere to the IBOR Protocol. Citi will continue to work with clients on more complex exposures where the IBOR Protocol or other industry standard solutions may not be appropriate.

For further information please refer to ISDA’s [IBOR Protocol FAQs](#).

**25. Following adherence to the IBOR Protocol and the conversion of existing contracts from the impacted IBOR to its RFR alternative, what happens to the calculation of interest for a period that starts before and ends after an IBOR cessation date?**

Using USD LIBOR on a derivatives trade as an example, the USD LIBOR interest rate would be used in calculation of interest for the full period. Subsequent interest periods would no longer be calculated based on the relevant USD LIBOR tenor and would now observe the interest calculation methodology as per the fallback language on the trade. Thus, if both parties on the trade have adhered to the IBOR Protocol, or have bilaterally adopted the terms of the IBOR Protocol, subsequent interest periods post the USD LIBOR cessation date would be calculated as per the first fallback terms of the IBOR Protocol for USD LIBOR, i.e. on a compounded SOFR in arrears basis plus the credit spread adjustment.

## THE BENCHMARKS SUPPLEMENT

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## 26. What is the Benchmarks Supplement?

The ISDA Benchmarks Supplement (the “Benchmarks Supplement”) was published by ISDA in September 2018 primarily to facilitate compliance with certain benchmark requirements under the EU BMR.

In summary, the Benchmarks Supplement enables the parties to certain derivative contracts to comply with certain requirements of the EU BMR by introducing robust fallbacks into the contract which apply in the event a benchmark referred to in that contract materially changes or ceases to be provided, or is no longer authorised under Applicable Law.

The Citi entities below have adhered to the BMS Protocol and exchanged questionnaires with counterparties on ISDA Amend, where possible, so that new and legacy transactions with clients under existing master agreements have robust fallback language:

- Citibank Europe Plc., LEIN1FBEDJ5J41VKZLO2475
- Citibank, National Association, LEIE57ODZWZ7FF32TWEFA76
- Citigroup Global Markets Europe AG. LEI 6TJCK1B7E7UTXP528Y04
- Citigroup Global Markets Ltd. , LEIXKZZ2JZF41MRHTR1V493

Citi has currently elected to incorporate the Benchmarks Supplement into new and legacy transactions under existing master agreements. In summary, this means that legacy transactions with Citi under existing master agreements will be amended to incorporate the Benchmarks Supplement, to the extent Citi’s counterparty has also adhered to the Benchmarks Supplement, exchanged applicable questionnaires and similarly elected to amend legacy transactions.

For further information please refer to ISDA’s [Benchmarks Supplement FAQs](#).

## 27. What is the BMS Protocol?

The ISDA 2018 Benchmarks Supplement Protocol, published on December 10, 2018 (the “BMS Protocol”), was created to allow market participants to incorporate the ISDA Benchmarks Supplement into relevant transactions under existing master agreements quickly and efficiently by adhering to the Protocol and exchanging Questionnaires.

## 28. How does the Benchmarks Supplement interact with the IBOR Supplement and the IBOR Protocol?

The Benchmarks Supplement covers a much broader range of benchmarks than the IBOR Protocol and IBOR Supplement. Where contracts incorporate both the Benchmarks Supplement and the IBOR Supplement, the IBOR Supplement will take precedence following an index cessation event and the fallbacks under the IBOR Supplement will constitute ‘Priority Fallbacks’ under the Benchmarks Supplement. This means that following the FCA LIBOR Announcement on 5 March 2021, Index

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Cessation Events (under the IBOR Supplement) have occurred with respect to all Relevant LIBORs under contracts incorporating both the Benchmarks Supplement and the IBOR Supplement.

## BMS PROTOCOL ADHERENCE

### 29. Who can adhere to the BMS Protocol?

The BMS Protocol is open to adherence by any entity regardless of where it may be domiciled or the regulations to which it is subject. You may adhere individually in your own capacity or as an agent on behalf of your clients. You do not have to be an ISDA member to adhere to the BMS Protocol.

### 30. What should I do if I do not want to adhere to the BMS Protocol?

If you would prefer not to adhere to the BMS Protocol and instead implement the Benchmarks Supplement by way of bilateral agreement, please contact [iborq@citi.com](mailto:iborq@citi.com).

### 31. How do I adhere to the BMS Protocol?

To adhere to the BMS Protocol you will need to send an adherence letter to ISDA.

You can access the form of the adherence letter on the [ISDA website](#). However, unlike some ISDA protocols where amendments are effected solely by delivery of an adherence letter by each party, the BMS Protocol requires that adherents must also exchange completed questionnaires for amendments to be effective between them.

You can exchange these questionnaires with Citi via ISDA and IHS Markit's technology-based solution, "ISDA Amend", or through the exchange of soft copy versions by email to [iborq@citi.com](mailto:iborq@citi.com). The questionnaire allows you to make certain elections, such as whether legacy transactions under existing master agreements should be amended to incorporate the Benchmarks Supplement or only new transactions under existing master agreements.

The use of ISDA Amend is Citi's preferred method of election as it ensures robust industry-wide fallback language is put in place, helping to protect clients and their assets. We would encourage you to review the terms of the BMS Protocol and consider whether the BMS Protocol will work for your remediation purposes. You should consider seeking independent professional advice (legal, tax, accounting, financial or other) as appropriate.

Please see the [ISDA website](#) for additional information in relation to the BMS Protocol and the relevant questionnaire forms.

Further information on ISDA Amend can be found [here](#).

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### **32. What about benchmark user transactions with Citi that are not documented under an ISDA master agreement?**

The BMS Protocol was created to allow market participants to include the terms of the ISDA Benchmarks Supplement in covered confirmations which incorporate, or which are entered into under a master agreement which incorporates, one or more of the following ISDA definitional booklets:

- 2006 ISDA Definitions;
- 2002 ISDA Equity Derivatives Definitions;
- 1998 FX and Currency Option Definitions; and
- 2005 ISDA Commodity Definitions.

Further information on transactions and agreements that would be captured by the BMS Protocol can be found [here](#).

Agreements which are not covered by the BMS Protocol and in which benchmarks are used may also need to be updated with more robust fallback language to satisfy regulatory requirements.

To the extent that this applies to you, please email [iborq@citi.com](mailto:iborq@citi.com) to discuss how to incorporate the required fallback language.

### **33. What should I do if I would like to discuss this topic with Citi?**

You should contact [iborq@citi.com](mailto:iborq@citi.com) in the first instance.

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## DEFINITIONS

"**AONIA**" means the AUD Overnight Index Average.

"**ARRC**" means the Alternative Reference Rates Committee, the working group established by the Federal Reserve that has identified SOFR as the preferred replacement RFR in respect of USD LIBOR.

"**Australian Financial Markets Association**" means one of the three committees working on benchmark reform which has identified AONIA as the preferred replacement RFR in respect of BBSW.

"**BBSW**" means the bank bill swap interest rate, a term rate commonly used for Australian Dollar transactions and which is administered by the Australian Securities Exchange.

"**Bloomberg**" means Bloomberg Index Services Limited.

"**Canadian Alternative Reference Rate Working Group**" means the working group including the Bank of Canada which has established two working subgroups, the Transition Subgroup and the Term Rate Subgroup.

"**CDOR**" is a term rate commonly used in transactions denominated in Canadian dollars.

"**Canadian Overnight Repo Rate Average**" or "**CORRA**" means the reference rate in Canadian dollar financial products currently proposed by the Canadian Alternative Reference Rate Working Group as the replacement RFR in respect of the Canadian Dollar Offered Rate.

"**Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks**" is the working group established by the Bank of Japan that is consulting on alternative rates for JPY LIBOR.

"**EONIA**" means the Euro Overnight Index Average.

"**€STR**" means the Euro Short-Term Rate.

"**EU BMR**" means the Benchmarks Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds.

"**FSB**" means the Financial Stability Board.

"**HIBOR**" means the Hong Kong Interbank Offered Rate.

"**HONIA**" means the Hong Kong Dollar Overnight Index Average.

"**Hong Kong Treasury Markets Association Market Practices Committee**" means the working group which has identified the Hong Kong Dollar Overnight Index Average as the preferred replacement RFR in respect of HIBOR.

"**IBA**" means ICE Benchmark Administration.

"**IOSCO**" means the International Organization of Securities Commissions.

"**ISDA**" means the International Swaps and Derivatives Association.

"**ISDA IBOR Protocol Covered Booklet**" means the 2006 ISDA Definitions, the 2000 ISDA Definitions, the 1998 ISDA Euro Definitions, the 1998 Supplement to the 1991 ISDA Definitions and the 1991 Definitions.

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"**National Working Group on Swiss Franc Reference Rates**" means the working group established by the Swiss National Bank which has identified SARON as the preferred replacement RFR in respect of CHF LIBOR.

"**MIFOR**" means the Mumbai Interbank Forward Offer Rate.

"**PHIREF**" means the implied Peso interest rate derived from done deals in the interbank foreign exchange swap market. The PHIREF is used as the benchmark for the reset value for the peso floating leg of an Interest Rate Swap.

"**Protocol Covered Documents**" has the meaning given to it in the IBOR Protocol.

"**Relevant IBOR**" has the meaning given to it in the IBOR Protocol.

"**Relevant LIBOR**" means each of Sterling LIBOR, Swiss Franc LIBOR, USD LIBOR, Euro LIBOR and Japanese Yen LIBOR.

"**SARON**" means the Swiss Average Rate Overnight, the RFR identified as the preferred replacement for CHF LIBOR by the National Working Group on Swiss Franc Reference Rates.

"**SOFR**" means the Secured Overnight Funding Rate.

"**SONIA**" means the Sterling Overnight Index Average.

"**SOR**" means the Singapore Dollar Swap Offer Rate, an implied interest rate determined by examining the spot and forward foreign exchange rate between the USD and SGD and the appropriate US dollar interest rate for the term of the forward.

"**Supplement 70**" means supplement number 70 to the 2006 ISDA Definitions.

"**Supplement 75**" means supplement number 75 to the 2006 ISDA Definitions.

"**Supplement 82**" means supplement number 82 to the 2006 ISDA Definitions.

"**THBFX**" means the synthetic rate for deposits in Thai Baht, which represents the effective cost of borrowing the Thai Baht synthetically by borrowing the US dollar for the same maturity, and swapping out the US dollar in return for the Thai Baht.

"**TONA**" means the Tokyo Overnight Average Rate, the RFR being consulted on by the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks as a potential alternative to JPY LIBOR.

"**UK BMR**" means the UK version of the EU BMR.

"**Working Group on Euro Risk Free Rates**" is the working group established by the ECB, ESMA, FSMA and the European Commission that was established to identify and recommend risk-free rates that could serve as a basis for an alternative to current benchmarks used in a variety of financial instruments and contracts in the euro area, such as EONIA and EURIBOR.

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