



**LIBOR
TRANSITION:
ARE YOU
READY?**

Key terms

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Amendment approach

The so-called amendment approach, provides for a streamlined amendment mechanism (such as a lower consent threshold) to allow, following occurrence of a trigger event, for negotiation of a benchmark's replacement. The approach does not itself define the benchmark that would apply although it sets out some parameters for its selection.

Backward-looking overnight rates

Backward-looking overnight rates (such as RFRs) are rates which are calculated by reference to historic transaction data and are published on an overnight basis.

Backward-looking term rates

Backward-looking term rates are rates that are known or realised after the beginning of an interest period. This is in contrast to, for example, LIBOR, which is published on a forward-looking basis and is known at the beginning of the interest period. In the context of RFRs, backward-looking term rates can be constructed mathematically from past realised daily fixings of the relevant overnight RFR over a given period of time (for example, see **compounded / averaged in arrear**).

BMR

European Benchmark Regulation (Regulation (EU) 2016/1011)

Compounded / averaged in advance

The compounded / averaged in advance method of calculating an interest rate would involve compounding / averaging an RFR over the period prior to the interest period to produce a rate known in advance. For example, to determine an interest payment obligation of 3 months, the overnight RFRs compounded over the 3-month period prior to the start of the interest period would be used. Therefore, the rate is known at the beginning of the interest period. The rates used would be historic and not take account of future rate expectations over the interest period or match the actual interest period. This method is also known as "last reset".

Compounded / averaged in arrear

The compounded / averaged in arrear method of calculating an interest rate involves compounding / averaging an RFR over an interest period (or an **observation period**) to produce a backward-looking rate. To determine an interest payment obligation of say 3 months, the RFR compounded during the 3-month interest period (or observation period) would be used. The interest payment is therefore only known when it becomes due, or a few days prior to it becoming due if a **Lookback** is used.

Compounding the balance

This is a method of calculating compound interest by applying the daily RFR to each of the principal balance and accrued accumulated unpaid interest (i.e. interest on interest) on a daily basis.

Compounding the rate

This is a method of compounding the daily RFR to produce a rate for a period by applying the RFR compounding formula to the RFR only and applying the compounded rate to the principal to calculate the interest due.

Credit Adjustment Spread

A credit adjustment spread is designed to minimise the economic impact of moving from LIBOR to RFRs: historically RFRs have been lower rates than LIBOR. This is because LIBOR includes a bank credit risk component and reflects a variety of other factors (e.g. liquidity, fluctuations in supply and demand) which are not reflected in the RFRs. Therefore, if parties wish to avoid value transfer, a credit adjustment spread will be needed when transitioning to RFRs from LIBOR (either through a **Fallback** mechanism or an **Amendment** to facilitate transition).

In the derivatives market, ISDA consulted on adjustments required to RFRs to account for the differences with LIBOR in respect of fallbacks applying on the cessation of LIBOR (and EURIBOR). A significant majority of respondents to the ISDA consultations felt that the most appropriate

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methodology for calculating a credit adjustment spread for fallbacks on cessation of LIBOR (and EURIBOR) would be a historical median over a five-year lookback period (see the definition of **ISDA Historical Median Approach**). This credit adjustment spread methodology will be applicable to all tenors of LIBOR (and EURIBOR). The actual credit adjustment spread, however, would differ across the different tenors. ISDA has selected **BISL** to publish the credit adjustment spread for derivatives contracts.

Various national RFR working groups have issued, or are planning to issue, public consultations on methodologies for calculating a credit adjustment spread for legacy cash products. In March 2020, the **Sterling RFR Working Group** published the results of its consultation which showed a strong consensus in favour of a historical five-year median approach in line with the ISDA Historical Median Approach across both cessation and pre-cessation fallback triggers (see the definition of **Fallback language / triggers**). In April 2020, the **ARRC** recommended a credit adjustment spread methodology for cash products in line with the ISDA Historical Median Approach.

Note that the Sterling RFR Working Group is separately considering credit adjustment spreads for early opt-in fallback triggers and active transition of cash products as the sterling market has seen the use of the **Linear Interpolation Approach** to calculating the spread in this context.

EFFR

In the United States, *Effective Fed Funds Rate*, is the interest rate at which depository institutions lend reserve balances to other depository institutions overnight on an uncollateralised basis. Reserve balances are amounts held at the Federal Reserve to maintain depository institutions' reserve requirements. Institutions with surplus balances in their accounts lend those balances to institutions in need of larger balances. The rate is calculated by the Federal Open Market Committee using data on overnight federal funds transactions provided by US depository institutions and is considered to be the most influential interest rate in the US economy, since it affects employment, growth and inflation. The **New York Fed** publishes the EFFR for the prior business day on the New York Fed's website at approximately 9:00 (Eastern Standard Time).

EONIA

Euro Overnight Index Average, is a daily interest reference rate published by **EMMI** whose underlying interest is the rate at which banks of sound financial standing in the European Union and European Free Trade Area countries lend funds in the interbank money market in euro. EONIA is due to cease being published from 3 January 2022 as it will not be compliant with the **BMR**. Market participants are expected to transition from the use of EONIA to **€STR**.

EONIA is calculated with a reformed methodology tracking **€STR**, plus a spread of 8.5 basis points (this reflects the historical difference between the underlying interests of the two benchmarks: interbank lending rate for EONIA vs. wholesale borrowing rate for **€STR**). EONIA for day T is available every **TARGET2** day on T+1, at or shortly after 09:15 (Brussels time). Prior to being reformed, EONIA expressed the weighted average of unsecured overnight interbank lending by panel banks in the European Union and the European Free Trade Area in euros. Reformed EONIA was first published on 2 October 2019 (reflecting data for 1 October 2019).

€STR

The *Euro Short-Term Rate* is an unsecured overnight interest rate administered by the ECB. The **Euro RFR Working Group** selected **€STR** as the RFR for the euro and as a replacement for **EONIA**. Its key characteristics are set out below. **€STR**:

- reflects the wholesale euro unsecured overnight borrowing costs of banks located in the euro area;
- is published on each **TARGET2** business day by the ECB at 08:00 (Brussels time) based on transactions conducted and settled on the previous **TARGET2** business day with a maturity date of T+1;
- is based entirely on daily confidential statistical information relating to money market transactions collected in compliance with the Money Market Statistical Reporting Regulation; and
- is subject to correction and republication at any time up to 09:00 (Brussels time).

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EURIBOR

Euro Interbank Offered Rate, is a daily interest reference rate calculated and published daily at about 11:00 (Brussels time) by EMMI in five different tenors: 1 week; 1 month; 3 months; 6 months; and 12 months. The underlying interest of EURIBOR is the rate at which wholesale funds in euro could be obtained by credit institutions in the EU and EFTA countries in the unsecured money market. EURIBOR moved from a quote-based methodology to a hybrid methodology in 2019.

Exposure Drafts

Documentation published by the LMA in respect of LIBOR transition which is open for comment from market participants. These do not constitute recommended forms of the LMA given insufficient established market practice to enable the LMA to publish recommended forms. The Exposure Drafts include the **Exposure Draft Facility Agreements** and the **Exposure Draft Reference Rate Selection Agreement**.

Exposure Draft Facility Agreements

The LMA's exposure drafts of the compounded SOFR US dollar term and revolving facilities agreement and of the compounded SONIA based sterling term and revolving facilities agreement.

Exposure Draft Reference

Rate Selection Agreement

The LMA's exposure draft reference rate selection agreement for use in relation to legacy transactions transitioning from LIBOR to alternative reference rates. Under the agreement, the parties would agree the basic commercial terms for the selection of the applicable alternative reference rate(s) and then authorise the agent and the obligors to determine the necessary amendments to the relevant facility agreement in accordance with the terms set out in the Reference Rate Selection Agreement. Whilst this is a two stage process, it is expected to make the process of agreement to such amendments easier to manage in syndicated loans for the agent and also the lenders (who would not need to approve all of the changes to the relevant facility agreement). It is not intended as a recommendation for any particular form of amendment process.

Fallback language / triggers

Fallback language sets out the alternative rates (usually in the form of a waterfall of priority) which may become the benchmark rate where the originally referenced benchmark rate is no longer to be used. Fallback language in documentation is contingent on a trigger (i.e. an event that initiates that switch from one interest rate to another). There are three different fallback triggers discussed and adopted by market participants:

- “**cessation fallback triggers**”: cessation of a rate (e.g. the potential cessation of LIBOR at the end of 2021 when the FCA will no longer compel panel banks to submit to LIBOR and as a consequence LIBOR ceases to be published);
- “**pre-cessation fallback triggers**”: which operate before the cessation of LIBOR and trigger as a consequence of a regulatory announcement of non-representativeness; and
- “**early opt-in fallback triggers**”: which operate before any such regulatory announcement of non-representativeness and allow parties to move to an alternative rate if certain conditions are met.

Forward-looking term rates

Forward-looking term rates are rates for an interest period that are known or realised at the beginning of that period. For example, LIBOR is known at the beginning of each respective tenor and therefore the interest due at the end of an interest period is known at the beginning of that period. This is to be contrasted with **backward-looking overnight rates** which do not have a “term” element and are calculated by reference to historical transaction data. However, it should be noted that forward-looking term rates derived from RFRs could be created based on OIS or futures markets. Such a rate would be calculated and known at the beginning of the period. This would be a similar construct to LIBOR (i.e. a forward-looking expectation), although it would not reflect a bank term credit risk. The various national RFR working groups are looking at creating forward-looking term rates (except in Switzerland), although these may only be available for use by certain products or in certain circumstances.

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FRN

Floating Rate Notes, are bonds (debt instruments) that have a variable coupon, equal to a money market reference rate such as IBORs or RFRs, plus a quoted spread. The spread is a rate that remains constant. Most FRNs have quarterly coupons, which means that they pay out interest every three months. At the beginning of each coupon period, the coupon is calculated by taking the fixing of the reference rate for that day and adding the spread (e.g. 3 months Sterling LIBOR + spread).

Hardwired approach

Fallback language can be hardwired, which means that it is built into the facility agreement and identifies the new rate that will apply in the event that a fallback trigger occurs. This approach provides certainty upfront by defining the trigger events that start the transition away from LIBOR and outlines a 'waterfall' approach to determine an RFR-based or other successor rate. Note that current forms of hardwired language would require documentation to be further amended in order for it to operate with the relevant RFR-based or other successor rate. This can be contrasted with **Switch Mechanisms**.

IBOR(s)

Interbank Offered Rate(s) – for example, EURIBOR, LIBOR and TIBOR.

IOSCO Principles

International Organization of Securities Commission Principles for Financial Benchmarks.

ISDA Historical Median Approach

This approach to calculating the **Credit Adjustment Spread** is based on the difference between LIBOR and the RFR-derived rate (i.e. a **compounded in arrear** RFR rate or a **forward-looking term rate** derived from RFRs) that is calculated using a median over a five-year lookback period prior to a **fallback** being activated. This approach therefore looks into the past, i.e. historical differences between LIBOR and a compounded in arrear RFR rate over a given period of time. The historical median approach derives a single value for the credit adjustment spread. The credit adjustment spread would be calculated and published for each LIBOR tenor based on

historical differences between LIBOR for that tenor and the RFR compounded rate over the relevant tenor (so the credit adjustment spread could differ across different tenors).

Lag

See definition of **Lookback**.

LIBOR

London Interbank Offered Rate, is the most widely used interest rate benchmark in the world. LIBOR is calculated and published daily at around 11:45 (London time) by IBA based on submissions by panel banks for five currencies: Sterling, U.S. Dollars, Euros, Swiss Francs and Japanese Yen and in seven different tenors: overnight/spot next; 1 week; 1 month; 2 months; 3 months, 6 months; and 12 months.

This benchmark is meant to reflect the cost at which large, globally-active banks can borrow on an unsecured basis in wholesale markets, which includes borrowing from other banks as well as using commercial paper or uninsured certificates of deposit. LIBOR is designed to provide an indication of the average rates at which submitter banks could obtain wholesale unsecured funding for set periods and incorporates both a credit premium (to reflect term bank credit risk) and a term liquidity premium (to reflect the risk inherent in longer-dated funding).

Over recent years LIBOR has evolved through reforms aimed at reducing its risk profile. These reforms were completed in 2019 when IBA announced the full transition of LIBOR panel banks to the waterfall methodology. However, LIBOR is increasingly based on the expert judgment of panel banks due to the declining amount of unsecured, wholesale borrowings by banks since the financial crisis. For this reason, LIBOR has become less of a robust, transactions-based market interest rate as envisioned by international standards for benchmarks. The scarcity of underlying transactions also makes LIBOR potentially unsustainable.

LIBOR or EURIBOR floor

A contractually agreed floor on LIBOR in the event that LIBOR or EURIBOR falls below a specified rate. For example, a zero LIBOR floor means that if the benchmark rate is less than zero, LIBOR shall be deemed to be zero. Inclusion of a floor will depend on the commercial terms of a transaction.

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Linear Interpolation Approach

This approach to calculating the **Credit Adjustment Spread** is based on the forward-looking basis swap market. It is calculated as the linear interpolation between differing tenors of **LIBOR vs RFR** basis swaps, which is then added to the original margin.

For example, the Associated British Ports consent solicitation in May 2019 involved notes which had between 3 and 4 years to run. The credit adjustment spread was the interpolation between the 3 year and 4 year 3m GBP LIBOR vs **SONIA** basis for sterling basis swap transactions. The South West Water bilateral loan amendment in October 2019 used the linear interpolation to the final maturity date of the 3m GBP LIBOR vs **SONIA** basis.

The linear interpolation approach is a similar construct to the **ISDA Historical Median Approach**, with both methods attempting to compensate parties for the difference between **LIBOR** (and **EURIBOR**) and **RFRs**, except one is based on a realised calculation and the other on a projected basis.

Lock-out

Under the lock-out mechanism, the compounded average **RFR** applicable to an interest period is calculated over that interest period but for the purposes of the calculation the daily **RFR** is frozen or 'locked' a specified number of days from the end of the interest period at the then current rate. The calculation uses that locked rate for the remaining days in the interest period instead of the actual overnight **RFR** for each of those days. The effect is that the compounded average **RFR** for the interest period (and therefore the interest due in respect of that interest period) can be ascertained on the day that the lock takes effect. This structure is also referred to as a "suspension".

Lookback

Under a lookback mechanism the **Observation Period** for the interest rate calculation starts and ends a certain number of days prior to the interest period. As a result, the interest payment can be calculated prior to the end of the interest period. The rate is calculated over the interest period itself – but for each day in that period the rate used is that from the relevant number of days before.

For example, for a one month interest period of 1 March to 1 April with a 5 London business day lookback, the rate for 1 March would be taken from 22 February (the day falling 5 London business days' prior) and so on. On 25 March, the agent would know the full month's interest amount and would be able to invoice the borrower for payment at the end of the interest period. The borrower would then have approximately five days' notice of the interest payment due on the last day of the period (depending on what time the compounded **RFR** is ascertainable). This structure is also referred to as "lag"; "offset"; and "reset days prior". The method is intended to help to alleviate some of the operational challenges associated with calculating interest using the **Compounded / averaged in arrear** method when calculating interest.

OBFR

In the United States, the *Overnight Bank Funding Rate*, is a measure of wholesale, unsecured, overnight bank funding costs. It is calculated using federal funds transactions, certain Eurodollar transactions, and certain US deposit transactions. Those Eurodollar transactions that are included are unsecured borrowings of U.S. dollars booked at international banking facilities and at offshore branches that are managed or controlled by a U.S. banking office. The **OBFR** is calculated as a volume-weighted median of overnight federal funds transactions, Eurodollar transactions, and the domestic deposits. The **New York Fed** publishes the **OBFR** for the prior business day on the New York Fed website at approximately 9:00 (Eastern Standard Time).

Observation Period

This is a period over which a compounded **RFR** applicable to any loan is calculated. It operates by reference to a specified **Lookback** which determines both the first day of the observation period and the last day of the observation period. For example, in respect of an interest period for two weeks beginning on Monday 10 February with a specified lookback of 5 business days and no public holidays in the month of February, the first day of the observation period for this interest period is Monday 3 February (being the date falling 5 business days prior to the first day of the interest period) and the last day of the observation period for this interest period is Monday 17 February (being the date falling 5 business days prior to the last day of the interest period).

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Observation Shift

The observation shift mechanism provides for the rate to be calculated and weighted by reference to the **Observation Period** rather than the relevant interest period.

The observation shift weights the rate according to the number of days that apply in the observation period; this is in contrast to the **Lookback** which weights the rate according to the number of days that apply in the interest period. Using the example of a 2-business day lookback period, the lookback uses the rate from 2 days ago to calculate today's interest owed. So if today were Friday, one would use Wednesday's rate in calculating today's interest:

- The Lookback would imply that you should apply Friday's weighting (i.e. of 3, since Friday covers three calendar days until payment is due) to Wednesday's rate.
- The observation shift in contrast would apply Wednesday's weighting to Wednesday's rate (i.e. of 1).

Note that with a 5-business day lookback, the differences in weighting solely occur with bank holidays.

Applying an observation shift will match **OIS** contracts while a lookback with no observation shift will have some basis. The **SOFR Index** and **SONIA Index** envisage an observation shift.

This mechanism is a feature of the **Exposure Draft Facility Agreements**.

OIS

Overnight Indexed Swap, refers to an interest rate swap involving the overnight rate being exchanged for a fixed interest rate. An overnight index swap uses an overnight rate index such as **LIBOR** or **RFRs** as the underlying rate for the floating leg, while the fixed leg would be set at a pre-agreed rate.

Replacement of Screen Rate Clause

In May 2018, the LMA published a *Recommended Revised Form of Replacement Screen Rate Clause*. This was developed in conjunction with members of the LMA and the **ACT** (including lenders, borrowers and major law firms) in order to facilitate further flexibility than the then-existing clause allowed (which had been published in November 2014). The main purpose of the clause is to provide the parties to the facility agreement with greater flexibility to make amendments with a lower consent level than would otherwise be required. In this respect, it allows amendments to be made to facilitate inclusion of a replacement benchmark which:

- is formally selected as a replacement for **LIBOR** by the LIBOR administrator or by an appropriate regulator; or
- is otherwise accepted by the relevant markets; or
- is deemed appropriate by the requisite majority of lenders and the obligors.

The clause therefore facilitates a so-called **Amendment approach**, as opposed to a **Hardwired approach**.

Repo

A *Repurchase Agreement* is a form of short-term borrowing for dealers in government securities. In the case of a repo, a dealer sells government securities to investors, usually on an overnight basis, and buys them back the following day at a slightly higher price. That small difference in price is the implicit overnight interest rate.

RFRs

Risk-Free Rates have been identified by the national working groups as alternatives to **IBORs**. RFRs have, for example, been identified for all the **LIBOR** currencies and the euro. The RFRs chosen are overnight risk-free (or near risk-free) rates measured from transactions in interbank unsecured lending markets or **Repo** markets.

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There are a number of key differences between IBORs and RFRs:

- An IBOR is a **forward-looking term rate** published for various tenors (i.e. overnight/spot next; 1 week; 1 month; 2 months; 3 months, 6 months; and 12 months), whereas RFRs are backward-looking overnight rates;
- An IBOR includes bank credit risk in its calculation, whereas RFRs are near risk-free; and
- An IBOR will include the premium paid on longer-dated funds, whereas RFRs will not include a premium for term funding.

In most cases, the RFRs are lower than their IBOR equivalents and, unlike an IBOR, they do not reflect periods of credit stress.

The overnight RFR could be referenced directly on a daily basis. This would effectively mean daily interest periods. Alternatively, the overnight rates can be averaged / aggregated in some way to derive a term rate (such as by taking a simple average or compounding the overnight rate over a certain period) (see **Compounded / averaged in advance** and **Compounded / averaged in arrear**).

SARON

The *Swiss Average Rate Overnight* has been named by the **Swiss franc RFR Working Group** as its overnight RFR.

SARON is administered by the **SIX**. Its key characteristics are set out below:

- SARON is a secured reference rate reflecting both actual transactions and binding quotes in the underlying **Swiss Repo** market;
- SARON is under the surveillance of SIX Exchange Regulation and is regulated under the Swiss Financial Market Infrastructure Act as a multilateral trading facility; and
- the rate is fixed at 12:00; 16:00 and 18:00 (Central European Time) on the same day (the 18.00 fixing serves as a reference reading for derivative financial products and the valuation of financial assets).

Screen Rate

Frequently referred to in documentation to identify the benchmark being used as a reference rate. For example, **LIBOR**, published by IBA, is displayed on pages LIBOR01 or LIBOR02 of the Thomson Reuters screen or on the appropriate page of such other information service which publishes the rate from time to time in place of Thomson Reuters.

SOFR

The *Secured Overnight Financing Rate* has been named by the **ARRC** as its recommended RFR alternative to **LIBOR** for US dollar denominated sums.

SOFR is produced by the **New York Fed** and is a secured risk-free rate. Its key characteristics are set out below. SOFR:

- measures the broad cost of borrowing US dollar sums overnight collateralised by US Treasury securities;
- is calculated by reference to the transactions executed in the overnight US Government securities **Repo** market;
- is produced as a percentage rate per annum for an overnight tenor only;
- is published for every New York business day on a backward-looking T+1 basis: meaning that SOFR for any given New York business day is published at 08:00 (Eastern Standard Time) on the following New York business day; and
- is subject to correction and republication at any time up to 14:30 (Eastern Standard Time) on the day of publication.

SOFR Averages

The **New York Fed** began publishing SOFR Averages on 2 March 2020. SOFR Averages for a given publication date will incorporate all the **SOFR** values starting exactly 30, 90 and 180 calendar days before the publication date, regardless of whether or not that date is a weekend or holiday and extend through the SOFR published that day. In order to preserve the fixed-day count structure, the SOFR Averages will be assigned the SOFR value from the preceding business day when the start of a given tenor falls on a weekend or a holiday. For example, if the start date falls on a Saturday, the SOFR for the preceding Friday would be applied for 2 calendar days (Saturday and Sunday). If the start date falls on a Sunday, the SOFR for the preceding Friday would be applied for 1 calendar day (Sunday).

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SOFR Index

The **New York Fed** began publishing a SOFR Index on 2 March 2020. The SOFR Index measures the cumulative impact of compounding SOFR on a unit of investment over time and is published on the New York Fed's website shortly after SOFR is published at 08:00 (Eastern Standard Time). The Index employs daily compounding on business days, as determined by the SOFR publication calendar and simple interest will apply to any day that is not a business day, at a rate of interest equal for the SOFR value for the preceding day. For transactions that reference this index, a calculation of the compounded SOFR will still need to be made in order to apply the index data to the relevant period although this would be significantly simpler than manually calculating the compounded rate.

SONIA

The *Sterling Overnight Index Average* has been named by the **Sterling RFR Working Group** as its preferred RFR for sterling markets.

SONIA is administered by the **BoE**. Its key characteristics are set out below. SONIA:

- measures the rate at which interest is paid on sterling short-term wholesale funds in circumstances where credit, liquidity and other risks are minimal;
- is calculated by reference to the rates paid by banks on overnight unsecured deposits in sterling made by other financial institutions;
- is produced as a percentage rate per annum for an overnight tenor only;
- is published for every London business day on a backward-looking T+1 basis: meaning that SONIA for any given London business day is published at 09:00 (London time) on the following London business day; and
- is subject to correction and republication at any point up to midday (London time) on the day of publication.

SONIA Averages

The **BoE** is considering whether (and if so how) to define and publish a daily set of SONIA Period Averages. These would provide the interest rate payable over specific periods of time (i.e. the compounded rate over the last X days or months). In its February 2020 discussion paper (which closed for comments on 9 April 2020), the BoE asked for feedback on the proposals including as to whether such averages should be published and if so the preferred options for the reference period (for example, options include periods of a certain number of days, periods of a certain number of months, any adjustments to the periods for non-business days).

SONIA Index

The **BoE** has announced that, subject to the response to its February 2020 discussion paper (which closed for comments on 9 April 2020), it intends to publish a SONIA Compounded Index by the end of July 2020. The SONIA Compounded Index would measure the cumulative returns over time from earning interest of SONIA on a unit of investment. The BoE has stated that it is mindful of the benefits of international consistency to support cross border business and reduce operational complexity. Therefore the proposed methodology of the SONIA Compounded Index is consistent with the approach taken by the **New York Fed** in the design of its SOFR Index.

Switch Mechanisms

Switch mechanisms in loan documentation provide for an in-built switch from **LIBOR** to **RFRs** upon a specified trigger and the loan documentation includes the mechanics and provisions for the use of that rate. A benefit of this approach is that it requires a consideration of the same calculation, convention and documentation issues as a new loan directly referencing RFRs. It also eliminates the need for a further amendment process.

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Term SOFR

Term SOFR is a **forward-looking term rate** based on SOFR derivatives markets. It is the first step in the benchmark replacement waterfall in the ARRC recommended **fallback language**.

Term SOFR is not currently available although the ARRC plans to establish a process and criteria for recommendations in order to select an administrator of Term SOFR.

TIBOR

Tokyo Interbank Offered Rate, is a daily interest reference rate calculated and published by the JBA every business day at 13:00 Japan Standard Time of the same day. The JBA publishes two types of TIBOR rates: the Japanese Yen TIBOR and the Euroyen TIBOR for six different tenors: 1 week; 1 month; 3 months; 6 months; and 12 months.

The JPY TIBOR rates reflect prevailing rates on the unsecured call market, whereas the Euroyen TIBOR rates reflect the Japan offshore market.

TONA

The *Tokyo Overnight Average Rate* has been named by the Japanese Yen RFR Working Group as the RFR replacement benchmark for JPY LIBOR.

TONA has been published daily by the Bank of Japan since 1996.

TONA is currently referenced for OIS in Japanese Yen and the current framework for its calculation and publication is likely to remain the same. TONA is an unsecured benchmark, based on transactions in the uncollateralised overnight call rate market and is calculated as a volume-weighted average.

TONA is published at 10:00 (Japan Standard Time) the next business day.

TSRR

Term SONIA Reference Rates refer to a **forward-looking term rate** which reflects the expected average SONIA over a given period. This allows the rate to be fixed at the outset of a given interest period. In principle, such forward-looking term rates can be generated from the prices of RFR-referencing derivatives such as futures or OIS, because these provide information on market expectations of SONIA over a future period. The creation of TSRRs is being undertaken by various service providers, however, none are currently available.

Institutions

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ACT

Association of Corporate Treasurers

APLMA

Asia Pacific Loan Market Association

ARRC

The *US Alternative Reference Rates Committee*, is a group of private market participants convened by the Federal Reserve Board and the **New York Fed** in 2014 to help ensure a successful transition from USD LIBOR to a more robust reference rate, its recommended alternative, **SOFR**. The ARRC is comprised of a diverse range of private-sector entities that have an important presence in markets affected by USD LIBOR and a wide array of official-sector entities, including banking and financial sector regulators, as ex-officio members. To fulfil its mandate, the ARRC established a number of working groups which issue conclusions and recommendations that help the ARRC to facilitate discussions and to make informed decisions.

BISL

Bloomberg Index Services Limited

BoE

Bank of England

BoJ

Bank of Japan

ECB

European Central Bank

EMMI

The *European Money Markets Institute* is the administrator of two critical benchmarks:

- **EURIBOR** – for which EMMI was granted authorisation under Article 34 of the **BMR** in July 2019; and
- **EONIA** – for which EMMI was granted authorisation under Article 34 of the **BMR** in December 2019.

ESMA

European Securities and Markets Authority

Euro RFR Working Group

The *Working Group on Euro Risk-Free Rates* is a group of private-market participants convened by the **ECB**, **FSMA**, **ESMA** and the European Commission in 2018 in response to the **FSB's** 2014 report on interest rate benchmark reform. The Euro RFR Working Group is intended to help ensure a successful transition from a range of benchmarks used in a variety of financial instruments and contracts in the Euro area to a more robust reference rate, its recommended alternative, **€STR**. The Euro RFR Working Group is comprised of a diverse range of private-sector entities that have an important presence in the Euro area and official-sector entities – including the ECB and European Commission, as ex-officio members. To fulfil its mandate, the Euro RFR Working Group established a number of sub-groups which focus on market-specific issues, sector-specific issues and cross-cutting issues. The sub-groups issue conclusions and recommendations for the Euro RFR Working group's review and approval.

FCA

UK Financial Conduct Authority

FOMC

Federal Open Market Committee



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FINMA

Swiss Financial Market Supervisory Authority

FRB

US Federal Reserve Board of Governors

FRBNY / Fed / New York Fed

Federal Reserve Bank of New York

FSB

The *Financial Stability Board* is an international body that monitors and makes recommendations about the global financial system. The FSB promotes international financial stability; it does so by coordinating national financial authorities and international standard-setting bodies as they work toward developing strong regulatory, supervisory and other financial sector policies. It fosters a level playing field by encouraging coherent implementation of these policies across sectors and jurisdictions.

FSB OSSG

The *Financial Stability Board Official Sector Steering Group* was established by the FSB in 2013. The FSB OSSG comprises senior officials from central banks and regulatory authorities and focuses on interest rate benchmarks which are considered to play the most fundamental role in the global financial system. In 2014, the FSB OSSG published a report entitled “*Reforming Major Interest Rate Benchmarks*”, where it published its recommendations on interest rate benchmarks. Since then, the FSB OSSG published a series of annual progress reports to assess implementation of its recommendations. In 2019, the FSB OSSG published a “*User’s guide for overnight RFRs*”.

FSMA

Belgian Financial Services and Markets Authority

IBA

ICE Benchmark Administration Ltd. In February 2014, IBA took over the administration of LIBOR.

IOSCO

The *International Organization of Securities Commissions* is the international body that brings together the world’s securities regulators and is recognised as the global standard setter for the securities sector. IOSCO develops, implements and promotes adherence to internationally recognised standards for securities regulation. It works intensively with the G20 and the FSB on the global regulatory reform agenda.

ISDA

International Swaps and Derivatives Association

Japanese Yen RFR Working Group

The *Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks* is a group of private-market participants convened by the Bank of Japan in 2018 in response to the FSB’s 2014 report on interest rate benchmark reform, to help facilitate the use of Japanese yen interest rate benchmarks. The Committee is comprised of a diverse range of private-sector market participants and interest rate benchmark users, including financial institutions, institutional investors, and non-financial corporates, and official-sector entities – including the Bank of Japan, as ex officio members. To fulfil its mandate, the Committee established a number of sub-groups which focus on market-specific issues, sector-specific issues or cross-cutting issues. The sub-groups issue conclusions and recommendations for the Committee’s review and approval.

JBA

Japanese Bankers Association

JBATA

Japanese Bankers Association TIBOR Administration

JFSA

Japan Financial Services Agency

LSTA

Loan Syndications and Trading Association (US)



Institutions

In alphabetical order

NWG / Swiss franc RFR Working Group

The *National Working Group on Swiss Franc Reference Rates* (Switzerland) is a group of private/public-market participants convened by the Swiss National Bank in 2013 to reform the TOIS fixing, and then in 2016, focused on helping to ensure a successful transition from the Swiss franc **LIBOR** to a more robust reference rate, its recommended alternative, **SARON**. The NWG is comprised of a diverse range of private-sector entities that have an important presence in markets affected by Swiss franc LIBOR and is co-chaired by a representative of the private sector and a representative of the Swiss National Bank. The NWG publishes recommendations based on consensus. To fulfil its mandate, the NWG established a number of sub-groups which focus on market-specific issues and sector-specific issues. The sub-groups issue conclusions and recommendations that help the NWG to facilitate discussions and to make informed decisions.

PRA

UK Prudential Regulation Authority

SIX

SIX is Switzerland's principal stock exchange. *SIX* is also the benchmark administrator of **SARON** and is responsible for its calculation and publication.

SNB

Swiss National Bank

Sterling RFR Working Group

The *Working Group on Sterling Risk-Free Reference Rates* is a group of private-market participants convened by the Bank of England in 2015 in response to the **FSB's** 2014 report on interest rate benchmark reform, to help ensure a successful transition from Sterling **LIBOR** to a more robust reference rate, its recommended alternative, **SONIA**. The Sterling RFR Working Group is comprised of a diverse range of private-sector entities that have an important presence in markets affected by Sterling LIBOR and official-sector entities – the Bank of England and the **FCA** as ex-officio members. To fulfil its mandate, the Sterling RFR Working Group established a number of sub-groups which focus on market-specific issues, sector-specific issues or cross-cutting issues. The sub-groups issue conclusions and recommendations for the Sterling RFR Working Group's review and approval.