

LIBOR Transition in the Loan Markets

Frequently Asked Questions

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Glossary

April 2020 SWG Statement	See paragraph 2.2.
ARRC	Alternative Reference Rate Committee. Established by the Federal Reserve Board and the Federal Reserve Bank of New York to help ensure a successful transition away from US dollar LIBOR across the markets that have historically used it.
BMR	EU Benchmarks Regulation. See paragraph 1.7.
compounded RFR	See paragraph 3.1.
FCA	The UK Financial Conduct Authority, being the regulator of LIBOR.
Hard-Wired Fallback	See paragraph 2.1.
Hard-Wired Switch	See paragraph 2.1.
IBA	ICE Benchmark Administration Limited, being the administrator of LIBOR.
ISDA	International Swaps and Derivatives Association.
LMA	Loan Market Association.
LMA Exposure Drafts	See paragraph 1.5.
non-representativeness statement	A public statement by the FCA that LIBOR is no longer representative of the market it seeks to measure.
RFR	Overnight, virtually risk-free rate. See paragraph 1.3.
Sterling Working Group	Bank of England Working Group on Sterling Risk-Free Reference Rates. Established to help ensure a successful transition away from sterling LIBOR across the markets that have historically used it.

Introduction

For several decades, a significant proportion of financing transactions denominated in sterling, US dollars, euro, Swiss franc and Japanese yen have used LIBOR as a reference rate to determine amounts payable (in particular interest payable) under the relevant financing transaction. Transitioning away from LIBOR is now a top priority for many financial institutions in Europe (including the UK), the US, the Middle East and beyond. The likelihood that LIBOR will disappear after 2021 also increasingly concerns the even wider group of stakeholders, including businesses and consumers, who use products referencing LIBOR. This note answers the questions we are most frequently asked by financial institutions and their customers about LIBOR transition in the loan markets. The note's primary focus is on commercial loans under English law documentation. However, some of the answers refer to, or will also be relevant in, other financing contexts.

The original version of this note was published in February 2020. It has now been updated to describe the position up to 27 October 2020. Key developments since we last updated the note in early June 2020 include:

- the publication of ISDA's IBOR Fallbacks Supplement and Protocol (see paragraph 1.6);
- new guidance from the Sterling Working Group on providing sterling LIBOR loans from Q3 2020 (see paragraph 2.3);
- the LMA's publication of a new Exposure Draft and two notes suggesting changes to the Replacement of Screen Rate clause (see paragraph 2 generally);
- the publication by the Bank of England of an index, but not backward-looking term averages, for compounded SONIA (see paragraphs 3.4 and 3.5);
- changes to the preferred compounded RFR methodologies in the loan markets, including the introduction of non-cumulative compounding (see paragraphs 3.6 and 3.7); and
- the latest proposals for legislative solutions in the UK, US and EU (see paragraph 4.2).

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1 Background

1.1 Will LIBOR definitely disappear at the end of 2021?

No. The end of 2021 is seen as a key deadline because:

- on 27 July 2017 Andrew Bailey, then chief executive of the FCA, announced that the FCA would no longer persuade or compel LIBOR panel banks to continue making LIBOR submissions after 2021; and
- on 24 November 2017, the FCA announced that it had secured the voluntary agreement of all 20 LIBOR panel banks to continue submitting contributions until the end of 2021.

Whether LIBOR continues after 2021 is much less certain. In part, this will depend on the attitude of LIBOR's panel banks. They will have to weigh up the regulatory and other liability risks of continuing to make LIBOR submissions voluntarily against the risks to their own business of LIBOR disappearing at that time.

However, even if panel banks wish to continue supporting LIBOR after 2021, in practice this will require the FCA's blessing. If the FCA makes a non-representativeness statement after 2021, this may trigger restrictions on the ongoing use of LIBOR, at least by UK supervised entities (see paragraph 4.2). It may also activate mechanisms to replace LIBOR in certain existing LIBOR contracts (see paragraph 1.6).

What regulators have repeatedly emphasised is that no one should assume that LIBOR will still exist after 2021. The FCA, the Bank of England and the Sterling Working Group have [confirmed](#) that the economic disruption caused by the COVID-19 pandemic during 2020 should not change this "central assumption".

1.2 Why are regulators so keen for the financial markets to stop using LIBOR?

The two main reasons are:

- the underlying market that LIBOR has historically sought to measure – the market for unsecured wholesale term lending to banks – has not been an active market since the financial crisis; and
- the financial markets' over-reliance on LIBOR creates systemic risk.

The second of these points is particularly key. LIBOR has evolved significantly in recent years such that it is arguably no longer even an interbank rate. In April 2019, the IBA completed the transitioning of LIBOR panel banks onto a new "Waterfall Methodology". It now describes LIBOR as "*a wholesale funding rate anchored in LIBOR panel banks' unsecured wholesale transactions to the greatest extent possible, with a waterfall to enable a rate to be published in all market circumstances*". If LIBOR, as reformed in this way, were still only being used for its original purpose – to price loans arranged in London – regulators might have been less concerned about its ongoing use. Compare, for example, the regulators' approach to EURIBOR (see paragraph 1.8).

1.3 What are RFRs and how are they relevant to LIBOR transition?

Across the full range of financial products that have historically used LIBOR, regulators want market participants to use rates based on overnight, virtually risk-free rates (**RFRs**) instead.

Regulators in the home jurisdictions of each of the five current LIBOR currencies have identified the preferred RFR for their local currency, each of which is now published, as follows.

Currency	Approved RFR	Administrator	Secured or unsecured?
US dollar	SOFR (Secured Overnight Financing Rate)	Federal Reserve Bank of New York	Secured
Sterling	SONIA (Sterling Overnight Index Average)	Bank of England	Unsecured
Euro	€STR (Euro Short-Term Rate)	European Central Bank	Unsecured
Swiss franc	SARON (Swiss Average Rate Overnight)	SIX Swiss Exchange	Secured
Yen	TONA (Tokyo Overnight Average Rate)	Bank of Japan	Unsecured

Regulators prefer RFRs to IBORs because RFRs are:

- based on deep, highly liquid, overnight borrowing markets; and
- calculated by reference to recorded transactions in those markets, rather than relying on submissions from panel banks.

However, there are disadvantages to using RFRs instead of LIBOR in the loan markets. These include:

- different RFRs measure different types of overnight borrowing (some secured and some unsecured, see table above), have different calculation methodologies and are published at different times, in each case in the principal financial centre of the currency for which they have been developed; and
- RFRs have only a single tenor – overnight. "Raw" RFRs are therefore not suited to fixing a rate of interest in advance over a typical interest period. For more information on how RFRs are being used in the loan markets, see paragraph 3.

1.4 What are credit adjustment spreads and how are they relevant to LIBOR transition?

Credit adjustment spreads are particularly relevant in the context of transitioning legacy LIBOR-based agreements to RFR-based alternative rates, whether that transition occurs by amending existing contractual terms, or through "hard-wired" fallback or switch mechanics (see paragraph 2.1).

In either case, the transition from LIBOR to an RFR-based rate should avoid any transfer of economic value between the parties. The total amount of interest the borrower pays after the transition should – to the extent possible – stay the same.

An RFR does not price in bank credit risk or term risk so will inevitably be lower than a term LIBOR (e.g. of one, three or six months) in the same currency. The RFR-based rates that are expected to be used significantly in loan transactions (such as compounded RFRs) are likely to be higher than "raw" daily RFRs, but they will still be lower than LIBOR. Therefore, where LIBOR is replaced in an existing contract with an RFR-based rate, adding a credit adjustment spread to the latter is a useful method of avoiding any transfer of economic value.

Creating standardised published spreads between specific LIBORs and the RFR-based rates that will most commonly replace them is key to a smooth transition away from LIBOR in legacy loans for the following reasons:

- if the transition occurs through a Hard-Wired Fallback, an objectively ascertainable spread avoids the need for any party to exercise a discretion to determine it; and
- if the transition occurs through a manual amendment, a published, market standard spread avoids any need for the parties to negotiate the spread on a deal-by-deal basis.

For more information about progress on creating and publishing credit adjustment spreads for the loan markets, see paragraph 4.5.

1.5 What are the LMA Exposure Drafts?

The LMA has published the following "exposure draft" facility agreements to consult the market on the use of RFRs in lending transactions:

- In September 2019, the LMA released "exposure drafts" of two single currency term and revolving facilities agreements using compounded RFRs to calculate the interest. One was for sterling loans in which the interest was based on SONIA; the other was for US dollar loans in which the interest was based on SOFR.
- In September 2020, the LMA released an "exposure draft" of a multicurrency term and revolving facility agreement with a mechanism to switch from LIBOR to compounded RFRs at a specified date during the term of the facility. For more information about the terms of the September 2020 LMA Exposure Draft, see paragraph 2.

The use of RFRs in the loan markets is not yet sufficiently settled for the LMA to publish recommended forms of RFR-based facility agreement. All the LMA's recommended forms of facility agreement are still LIBOR-based.

1.6 How relevant to the loan markets is ISDA's work on LIBOR transition?

ISDA has provided a key "thought leadership" role in the LIBOR transition process. It has focused on developing fallbacks based on RFRs to include in legacy IBOR-based derivatives contracts with a view to ensuring contractual continuity. On 9 October 2020, ISDA published its IBOR Fallbacks Supplement. This amends the definitions of IBORs in the 2006 ISDA Definitions by adding a Hard-Wired Fallback to:

- a compounded RFR; plus
- a credit adjustment spread based on the historical difference between the relevant IBOR and that compounded RFR,

with the switch to that fallback occurring automatically on an "Index Cessation Effective Date". For LIBOR, this means either the date on which it ceases to be published, or any earlier date of a non-representativeness statement. These amendments will apply automatically to trades dated on or after 25 January 2021 that incorporate the 2006 ISDA Definitions.

At the same time, ISDA published a Protocol to enable parties to incorporate this mechanism into legacy trades¹. The Protocol also formally launches on 25 January 2021.

The loan markets are adopting adapted versions of some of the methodologies ISDA has developed, such as those relating to credit adjustment spreads (see paragraph 4.5). However, ISDA's use of a Protocol to deal with legacy IBOR-based derivatives:

- is not an approach the loan markets can realistically copy for dealing with legacy LIBOR loans (see paragraph 4.3); and
- is unlikely to be appropriate for amending finance-linked hedging terms (see paragraph 4.10).

In the EMEA loan markets, there has also been limited adoption of Hard-Wired Fallbacks of the type provided for in the ISDA IBOR Fallbacks Supplement (see paragraph 2.1).

1.7 [What impact does the EU Benchmarks Regulation have on the ongoing use of LIBOR in loan transactions?](#)

The BMR has, and is likely to have, a more limited impact on the loan markets (outside consumer credit and regulated mortgages) than in other product areas that use LIBOR, such as derivatives and debt capital markets.

The BMR contains obligations on contributors to, and administrators and users of, benchmarks. Most of these apply after the transitional period provided for in the BMR (Article 51), which now ends on 31 December 2021.

Article 28(2) of the BMR requires a supervised entity that uses a benchmark (which includes LIBOR) to have robust written plans setting out what actions will be taken if a benchmark "materially changes or ceases to be provided". Supervised entities must reflect these plans in their contracts with clients. Supervised entities are, broadly, regulated firms, including credit institutions and investment firms.

However, while parties to LIBOR-based bonds and derivatives are likely to be "using" LIBOR for the purposes of the BMR, loan transactions (other than consumer credit and regulated mortgage contracts) are out of scope. As a result, parties to commercial loans have not generally considered it necessary to include Hard-Wired Fallbacks in their loan agreements (on which see paragraph 2.1) in order to comply with the BMR.

The BMR may nevertheless indirectly affect LIBOR-based loans by contributing to LIBOR's demise. The obligations it imposed on benchmark contributors may be a factor that encourages LIBOR panel banks to stop making voluntary submissions after 2021.

¹ By signing up to a Protocol, an entity agrees that the amended terms to which the Protocol relates will automatically apply in all existing transactions between that entity and each other "adherent" to the Protocol.

Amendments to the BMR, and its post-Brexit UK equivalent, have recently been proposed to deal with "hard legacy" LIBOR contracts, although these are likely to have limited impact on the loan markets. See paragraph 4.2.

1.8 What is happening to EURIBOR and other non-LIBOR interbank rates?

EURIBOR and TIBOR (the rate for Japanese yen in the Tokyo interbank market) will continue to be published for the foreseeable future. There are also currently no plans to discontinue the main local IBORs used in the Middle East markets – EIBOR, SAIBOR, OMIBOR and QIBOR. However, as the underlying currencies to which these local Middle East benchmarks apply are pegged to US dollars, the discontinuation of US dollar LIBOR may still have an impact on their ongoing use.

If EURIBOR remains after LIBOR has been discontinued, the extent to which parties will continue to use it for euro loans (rather than €STR, the euro RFR) remains unclear. In early 2020, the LMA indicated that it planned to publish an exposure draft of a multicurrency facilities agreement in which EURIBOR would be retained, while currencies other than euro would be RFR-based. However, this has not materialised. The September 2020 LMA Exposure Draft provides for euro loans to switch from EURIBOR in the same way and at the same time as loans in other currencies switch from LIBOR.

EONIA, the overnight interbank rate for euro (equivalent to overnight LIBOR) will be discontinued, on 3 January 2022. Until then, EONIA will simply track €STR (the euro RFR), being €STR plus a fixed spread of 8.5 basis points. In the loan markets, the discontinuation of EONIA is most relevant for euro swingline facilities. The LMA published a note in October 2019 with suggested drafting for new facility agreements incorporating euro swingline facilities, to take account of the phasing-out of EONIA. This provided for interest on euro swingline loans to be calculated by reference to €STR or "Enhanced €STR" (the latter being an economic equivalent to EONIA) instead of EONIA.

1.9 Why are regulators taking a different approach to EURIBOR (and some other interbank rates) than they are taking with LIBOR?

The lower systemic risk involved in the continued use of other IBORs, when compared to LIBOR, is likely to be a significant factor. See paragraph 1.2.

2 New LIBOR loans

2.1 To what extent have lenders adjusted the terms of new LIBOR loans to anticipate LIBOR's discontinuation?

Since July 2017, market participants entering into new LIBOR-based loans with a tenor beyond 2021 have done so in the knowledge that LIBOR may well disappear during the term of the loan. Broadly, three approaches to addressing this risk have emerged:

- **The Amendment Approach.** The parties rely on their ability to amend the pricing terms as needed at the relevant time. To facilitate the Amendment Approach, the LMA published a revised "Replacement of Screen Rate" clause in May 2018, which it has since added to the LMA's recommended forms of facility agreement. Until August 2020, this simply provided that, on a "Screen Rate Replacement Event" (an event indicating the actual or likely imminent discontinuation of a relevant IBOR), relevant amendments to the facility agreement could be made with "Majority Lender", rather than all lender, approval. The LMA has recently published two separate notes suggesting drafting options for

expanding the scope of the Replacement of Screen Rate clause. See paragraphs 2.3 (in particular, under sub-heading "Agreed process for renegotiation") and 2.5.

- **Hard-Wired Switch.** This is a mechanism to switch from LIBOR to an economically equivalent RFR-based rate at a specified future date before the end of 2021. Early high-profile lending transactions with a Hard-Wired Switch included:
 - Royal Dutch Shell's December 2019 US dollar syndicated revolving credit facility agreement; and
 - British American Tobacco's March 2020 multicurrency revolving credit facility agreement.

The September 2020 LMA Exposure Draft includes a Hard-Wired Switch.

- **Hard-Wired Fallback.** This is a mechanism to switch from LIBOR to an economically equivalent RFR-based rate if an event occurs connected to the discontinuation or other unavailability of LIBOR. This is similar to a Hard-Wired Switch, but without an automatic move away from LIBOR on a specified date. Hard-Wired Fallbacks have become standard in many derivative and bond transactions, to ensure compliance with the BMR (see paragraph 1.7). Hard-Wired Fallbacks have also gained some traction in the US loan markets; in June 2020 the ARRC published updated [recommended language](#) to include in new US dollar LIBOR transactions. However, in the EMEA loan markets, there has been limited adoption of this approach. English law loan agreements have not typically included the ARRC's drafting recommendations, even for US dollar loans.

The extent to which lenders can still offer new LIBOR loans relying on these approaches is considered in the remainder of this paragraph 2.

2.2 [What deadlines have regulators set for the transition from LIBOR in the loan markets?](#)

In its [Priorities and roadmap for 2020](#) published in January 2020, the Sterling Working Group stated that lenders should not offer new LIBOR-based sterling loans after the end of Q3 2020. Acknowledging that many lenders' transition plans were then disrupted by COVID-19, in a [further statement](#) published on 29 April 2020 (the **April 2020 SWG Statement**) it deferred this milestone, recommending instead that:

- lenders providing sterling loans after Q3 2020 should be in a position to offer their customers a non-LIBOR option; but
- lenders could nevertheless continue to provide new sterling loans until the end of Q1 2021, subject to certain conditions (on which see paragraph 2.3).

On 27 May 2020, the ARRC published its own [recommendations](#) for the transition away from US dollar LIBOR – including a target of no new US dollar LIBOR business loans after the end of Q2 2021. And on 16 October 2020, the Financial Stability Board published a [Global Transition Roadmap for LIBOR](#) (covering all products, currencies and regions) stating that firms should "aim to use robust alternative reference rates to LIBOR in new contracts wherever possible" from mid-2021. These targets are less ambitious than the Q1 2021 deadline set by the Sterling Working Group for new sterling loans. However, if lenders have updated their operating systems, financial modelling and documentation so as to be in a position to transition their sterling loans by the end of Q1 2021, they are also likely to be able

to transition their loans in other LIBOR currencies (including US dollars) at or around the same time.

2.3 On what basis can lenders still provide sterling LIBOR loans?

In the April 2020 SWG Statement, the Sterling Working Group recommended that any new LIBOR sterling loans after Q3 2020 contain "*clear contractual arrangements...to facilitate conversion ahead of end-2021, through pre-agreed conversion terms or an agreed process for renegotiation, to SONIA or other alternatives*". How can lenders satisfy these conditions?

- **Pre-agreed conversion terms.** A facility agreement with a Hard-Wired Switch from LIBOR to a SONIA-based rate, as provided for in the September 2020 LMA Exposure Draft, would clearly satisfy the requirement for "pre-agreed conversion terms".
- **Agreed process for renegotiation.** In July 2020, the Sterling Working Group published a [Q&A document](#) (the **July 2020 SWG Q&A**), which provided more detail on its expectations relating to the transition steps recommended in the April 2020 SWG Statement. The Sterling Working Group made clear that including the LMA Replacement of Screen Rate clause at the time (as described in paragraph 2.1 – see "The Amendment Approach") did not in itself constitute a satisfactory "agreed process for renegotiation". To address this, on 24 August 2020 the LMA published "Revised Replacement of Screen Rate Clause and documentary recommendations published by the WGSFR". This suggested supplementing the existing form of LMA Replacement of Screen Rate clause by adding an obligation on the parties to renegotiate in good faith if LIBOR is still being used to calculate interest accruing under the facility agreement at a specified date before the end of 2021. They would aim to complete that negotiation by a second specified date, also before the end of 2021. This should constitute an "agreed process for renegotiation". Unlike the "Majority Lender" aspect of the LMA Replacement of Screen Rate clause, this mechanism is equally appropriate to include in a bilateral facility as in a syndicated facility.

From a documentary and operational perspective, including this "enhanced" Replacement of Screen Rate clause into a loan is likely to be much more straightforward than including a Hard-Wired Switch. However, the Sterling Working Group made clear in the July 2020 SWG Q&A that including "pre-agreed conversion terms" is preferable where possible. It said "*the greatest certainty for borrowers and lenders will be achieved by setting out in advance the terms for conversion at a future date or, if that is not achievable, by aiming to come as close to this as possible to minimise the risk of protracted or unsuccessful negotiations at a later date*". With lenders now expected to at least offer an alternative to LIBOR on sterling transactions (see paragraph 2.2), a lender cannot simply add the LMA's enhanced Replacement of Screen Rate clause to its loan agreements and continue to provide sterling LIBOR-based loans as before.

2.4 Are the conditions set by the Sterling Working Group for new LIBOR loans relevant to currencies other than sterling?

Not directly – the Sterling Working Group's remit does not extend to other LIBOR currencies. However, the Sterling Working Group's recommendations have influenced the drafting suggestions published by the LMA during 2020, which are now flowing through into both sterling and non-sterling LIBOR loan agreements. For example, although the LMA made clear that its enhanced Replacement of Screen Rate language was intended to address the Sterling Working Group's recommendations, we are now also seeing it included regularly in non-sterling LIBOR loan agreements.

2.5 What is the significance of the LMA's October 2020 statement on its Replacement of Screen Rate clause and pre-cessation trigger?

On 21 October 2020, the LMA published a further note, entitled "LMA Revised Replacement of Screen Rate Clause and pre-cessation trigger". This acknowledged that:

- under ISDA's IBOR Fallbacks Supplement, the events that would trigger use of RFR-based fallbacks in place of LIBOR in derivatives contracts include a non-representativeness statement; but
- the definition of "Screen Rate Replacement Event" in the current LMA Replacement of Screen Rate clause does not specifically refer to a non-representativeness statement.

As such, the note suggests that parties may wish to consider adding an additional limb to the definition of "Screen Rate Replacement Event" referring to a non-representativeness statement. This seems uncontroversial and we anticipate parties will now make this change to agreements containing the LMA Replacement of Screen Rate clause. However, whether parties choose to do so is likely to have limited impact on when they will be able to use the Replacement of Screen Rate clause to make LIBOR-related amendments with Majority Lender consent. This is because the definition of Screen Rate Replacement Event already includes a determination by the Majority Lenders and the borrower that LIBOR is "otherwise no longer appropriate for the purposes of calculating interest under this Agreement".

2.6 Has the prospect of LIBOR being discontinued had any other impact on the terms of new LIBOR-based loans?

Some lenders now require their LIBOR-based facility agreements to state that the borrower will pay the reasonably incurred costs of the lender or (on a syndicated transaction) agent in any future amendment to the facility terms relating to LIBOR transition. However, this is by no means a market standard approach. Indeed, borrowers often argue for the opposite position – a clear statement that the borrower will not have to pay any other party's costs of any amendment relating to LIBOR discontinuation. For more information about the costs of amending legacy LIBOR loans, see paragraph 4.8.

2.7 To what extent have the loan markets transitioned away from LIBOR on new transactions?

The transition away from LIBOR has been much slower in the loan markets than in other markets that have traditionally used LIBOR, in particular derivatives and bonds, and progress during 2020 has undoubtedly been hindered by COVID-19. In the sterling loan markets, lenders have though taken note of the milestones set by the Sterling Working Group, and are now more regularly offering SONIA-based loans, or at least LIBOR loans with a Hard-Wired Switch. However, our experience is that, for loans in other currencies, LIBOR remains very much the default option, in most cases without a Hard-Wired Switch or Hard-Wired Fallback.

3 New non-LIBOR loans

3.1 How can RFRs be used to calculate interest on loan transactions?

In English law agreements, and other agreements based on English law forms of documentation (as is common, for example, in the Middle East), we anticipate that most (but not all) loan products that have historically used LIBOR will instead use compounded in arrear RFRs (**compounded RFRs**) with a short "look-back" period, typically of five business days.

The RFR-based loans made to date under English law that we are aware of have adopted this approach, as do all the LMA Exposure Drafts. The UK regulators also advocate the wide adoption of compounded RFRs. In January 2020, the Sterling Working Group published [Use Cases of Benchmark Rates: Compounded in Arrears, Term Rate and Further Alternatives](#). It argued that 90% of loans by volume should be able to transition to use compounded RFRs. Although the remit of the Sterling Working Group is limited to the transition of sterling LIBOR, the analysis of whether compounded RFRs are suitable for a particular product is not currency dependent. So its views may also be of interest to, and influence practice in, US dollar and other LIBOR currency products.

However, this does not mean that there is a single, settled methodology for using RFRs on loan transactions – there are a number of possible variables within this basic approach. See paragraphs 3.6 and 3.7.

3.2 What is the significance of the "look-back" when using a compounded RFR?

LIBOR for an interest period is fixed at the beginning of that interest period: all the parties know then how much interest the borrower will have to pay at the end of the interest period. By contrast, the total interest accruing over a period based on a compounded RFR cannot be determined until the end of that period. A "look-back" mechanism provides that the interest payable over an interest period is not determined by the RFR over the interest period itself, but over an "observation period". The observation period is the same number of business days as the interest period but starts and ends a specified number of business days before the relevant interest period. This ensures the parties know the interest that will be payable at the end of that interest period a few days in advance of the payment date.

3.3 What does the "compounding" of an RFR involve?

Broadly, this means that the RFR itself is compounded on each business day over the relevant observation period, using the daily published rates during that period. It does not involve any "capitalisation" or compounding of accrued interest. Consequently, the principal amount of the loan does not increase as interest accrues during the interest period. RFRs are daily rates that anticipate repayment of principal and accrued interest the following day. Where RFRs are being used to calculate interest that will only be payable over a longer term (such as one or three months), it is considered more economically logical to compound the rates daily over that term.

3.4 Are compounded RFRs being published for the tenors most commonly used as interest periods?

Since 2 March 2020 the Federal Reserve Bank of New York has [published on each business day](#) the compounded average SOFR over the previous 30, 90 and 180 days. Since 25 March 2020, SIX Swiss Exchange has similarly published compounded average SARON over the previous one, three and six month periods. In July 2020, the European Central Bank launched a consultation on publishing similar rates for [€STR](#).

However, using published "period averages" of this nature is not without its complications. When calculating compounded RFRs over an interest period, the length of the observation period is typically determined by the number of [business days](#) in the relevant interest period rather than the number of calendar days. So a published three-month compounded average RFR cannot be reliably used to calculate the compounded average RFR over an observation period for a three-month interest period – the observation period may be a slightly different length. In February 2020, the Bank of England began a consultation on whether to publish

SONIA period averages, but stated that "*in the absence of a clear market consensus it is likely the Bank would choose not to publish period averages at this time*". In [June 2020](#), it notified the market that no consensus had emerged from the consultation about whether period averages for SONIA would be useful, or on the most appropriate conventions for calculating them. It therefore confirmed that it would not be publishing period averages for SONIA for the time being.

3.5 Can published indexes streamline the calculation of compounded RFRs on loan transactions?

A compounded index of an RFR represents the returns from a rolling investment earning interest at that RFR on a compounded basis. The change in this index between any two dates can be used to calculate the compounded average of the relevant RFR over that period. Inflation indexes (such as the CPI and RPI) work in a similar way.

The Bank of England began publishing a [SONIA compounded index](#) on 3 August 2020. RFR compounded indexes were already published for SOFR (since 2 March 2020) and [SARON](#) (for some time), and in July 2020 the European Central Bank launched a consultation on publishing an [€STR compounded index](#).

One of the main advantages of this type of index is its flexibility. It enables parties to calculate compounded average interest easily for a period of any maturity using any combination of start and end dates. However, it still requires a calculation to be performed, and so does not provide the same operational convenience as published term rates (e.g. of one, three and six months) that parties using LIBOR have been used to.

In any event, the methodologies that the loan markets are increasingly adopting to calculate compounded RFRs are not, in most cases, consistent with using published indexes (or published period averages, where available) to streamline their calculation for the foreseeable future. See paragraph 3.6.

3.6 What is the difference between the "lag" and "observation shift" methods?

"Lag"² and "observation shift" are different methods of calculating compounded RFRs. Under both methods:

- the observation period is determined in the same way – if there is a five business day look-back, the observation period begins five business days before the beginning of the relevant interest period and ends on (but excludes) the day five business days before the end of that interest period; and
- the interest rate for the interest period is determined by reference to the daily RFRs during the observation period.

The key difference between the two methods relates to the weighting of the daily RFRs in the compounding formula to address non-business days (on which RFRs are not published). As explained below, under the observation shift method, the relevant non-business days occur in the observation period. But under the lag method, the relevant non-business days occur in the interest period itself.

² The term "lag" is not used entirely consistently. Sometimes parties use it to describe any look-back mechanism. Where that is the case, the lag method described in this paragraph might be called a "lag without a shift/observation shift", and the observation shift method described in this paragraph called a "lag with a shift/observation shift".

Under the observation shift method, a multiplier is applied to the RFR for any business day during the observation period if that business day is immediately followed by one or more non-business days. For example, the RFR on any Friday that is a business day will be multiplied by three if the immediately following Monday is not a public holiday. In that way, Friday's rate is treated as applying on Friday and on the immediately succeeding Saturday and Sunday³. If the immediately following Monday is a public holiday, Friday's rate will be multiplied by four instead.

The lag method also weights daily RFRs to address non-business days. But it applies a multiplier to an RFR on any business day during the observation period if the day that is five business days after that business day is immediately followed by one or more non-business days (assuming a five business day look-back between the interest period and its observation period). Whilst the observation shift method "shifts" the weighting of the daily RFRs back to the days in the observation period, with the lag method it remains based on the days in the interest period. See the Appendix for a worked example.

The two methods are unlikely to produce significantly different results, and the technical differences between them may be of limited interest other than to those who need to calculate them. There is, however, a significant practical difference. A compounded RFR over a specified observation period calculated using the observation shift method is not impacted by any variables outside that observation period. As such, it can be calculated from a published index of the relevant compounded average rate (see paragraph 3.5). This is not possible when using the lag method.

The earliest RFR-based English law loan and bond transactions generally used the lag method. However, in early 2020 interest in the observation shift method grew in both the loan and bond markets, in anticipation of the publication of SONIA and SOFR compounded indexes (which has since occurred). The use of observation shift in British American Tobacco's multicurrency revolving credit facility agreement in March 2020 suggested that the loan market was beginning to embrace observation shift.

Since then, some other loan transactions have also used observation shift, but generally the loan market appears to be reverting to the lag method. In July, the [ARRC recommended the lag method for SOFR-based business loans](#) on the basis that the observation shift could result in inappropriate calculations if loans are prepaid or traded mid-interest period. In September 2020, the Sterling Working Group made the same recommendation for SONIA-based loans in [Recommendations for SONIA Loan Market Conventions](#). Reflecting these recommendations, the September 2020 LMA Exposure Draft incorporates the lag method (although the LMA has recently indicated that it will publish a further exposure draft facility agreement using observation shift).

In practice, this means that most RFR-based loan transactions will need to be calculated manually by agents and lenders for the foreseeable future, by inputting the daily rates for the relevant RFR during each observation period into one or more formulas (for example, as set out in the Appendix).

3.7 What is the difference between cumulative and non-cumulative compounding?

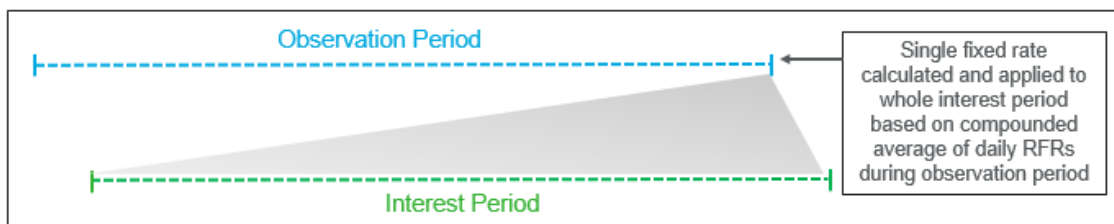
There are two basic methods of compounding: cumulative and non-cumulative.

³ For brevity, we assume a working week of Monday to Friday. In some markets the working week will end on Thursday and restart on Sunday.

- **Cumulative compounding.** The agent (or lender on a bilateral transaction) determines the total amount of interest accruing over a whole interest period by calculating the compounded average of the risk-free rate over the whole of the related observation period. See Figure 1 below. Therefore, with cumulative compounding:
 - a single interest calculation is required for each interest period, which is performed at the end of the related observation period;
 - although the interest rate is floating, the same interest rate applies on each day throughout an interest period, as in a LIBOR loan.

Figure 1

Cumulative compounding

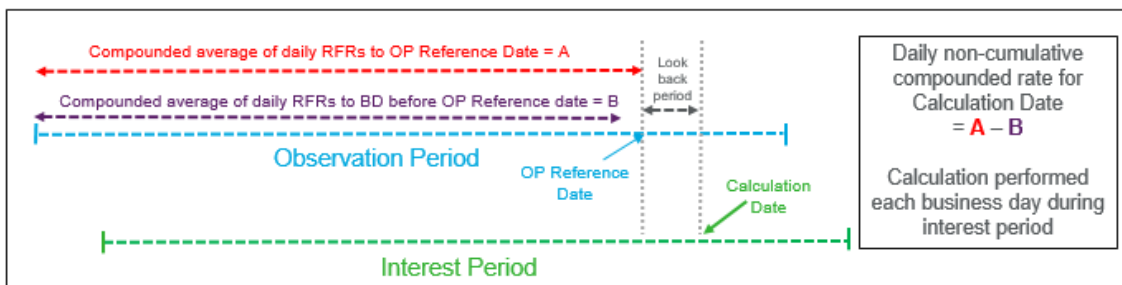


- **Non-cumulative compounding.** Provided the same rounding conventions are used, non-cumulative compounding results in the same amount of interest accruing over a whole interest period as cumulative compounding. However, non-cumulative compounding makes it possible to calculate the interest that has accrued since the start of an interest period on any day during the interest period – there is no need to wait until the end of the observation period.

Figure 2 below illustrates how the interest rate on a business day in an interest period – referred to as the "Calculation Date" – is calculated using non-cumulative compounding.

Figure 2

Non-cumulative compounding



If the Calculation Date is the nth business day in the Interest Period, this rate will be based on the daily RFRs from the beginning of the related observation period to the nth business day in that observation period (referred to as the "OP Reference Date" in Figure 2). It is then necessary to perform two calculations:

- first, calculate the compounded average of the relevant RFR from the beginning of the observation period to the OP Reference Date (referred to as "A" in Figure 2); and

- secondly, calculate the compounded average of the relevant RFR from the beginning of the observation period to the business day before the OP Reference Date (referred to as "B" in Figure 2).

A minus B is the non-cumulative compounded rate that will be applied to determine the interest rate on the Calculation Date. This calculation must be repeated on each business day during the term of the loan.

Until Q3 2020, cumulative compounding had been the preferred method (indeed, arguably the only method) of calculating interest on RFR-based loans. However, in September 2020, the Sterling Working Group published [Recommendations for SONIA Loan Market Conventions](#) and [accompanying slides](#), commenting in the latter that "*the Non-Cumulative Rate method is preferred for loans as it better supports intra interest period events such as loan trading activity, to distribute interest to the lenders on a pro rata basis*". If a lender transfers some or all of its loan commitments (or a loan is prepaid), in the middle of an interest period, the amount of interest that has accrued since the start of the interest period may determine how much one party must pay to another at that time. Where cumulative compounding is used, that accrued interest cannot be calculated until the end of the related observation period.

To reflect the Sterling Working Group's recommendation, the September 2020 LMA Exposure Draft provides for non-cumulative compounding (both for calculating compounded SONIA and other RFRs). However, the use of non-cumulative compounding is not a settled market standard. In [SOFR "In Arrears" Conventions for Syndicated Business Loans](#), published in July 2020, the ARRC noted both cumulative and non-cumulative compounding as options for business loans, but without recommending one or the other. Even in the sterling markets, we are aware that a number of lenders currently still prefer to use cumulative compounding. Non-cumulative compounding undoubtedly makes the interest rate methodology even more complicated, both for agents and lenders to calculate, and for relationship managers to explain to their borrower customers.

3.8 [Is it anticipated that all types of loan products that have used LIBOR to date will use compounded RFRs instead?](#)

No. In its January 2020 publication [Use Cases of Benchmark Rates: Compounded in Arrears, Term Rate and Further Alternatives](#), the Sterling Working Group acknowledged that using compounded RFRs with a short look-back period could be impractical for some loan types including:

- loans to smaller corporate wealth and retail clients;
- trade finance and working capital products (such as bill or invoice discounting facilities);
- export finance;
- Islamic finance;
- loans to borrowers in emerging market jurisdictions with exchange controls.

These products have been identified as problematic because it is particularly important for parties to these products to be able to ascertain the amount of interest that will accrue during an interest period at the outset of that interest period, or significantly in advance of the interest becoming payable. The Sterling Working Group has accepted that it might be more appropriate to calculate interest for these products using a term RFR, once available (see

paragraph 3.9), or an alternative rate (such as a central bank base rate or fixed rate), rather than compounded RFRs.

We anticipate that these alternatives might also be used in some other types of loan products, particularly on smaller transactions. Using compounded RFRs creates significant documentary and operational complexity, particularly as manual calculation of interest will be necessary on most RFR-based loan transactions for the foreseeable future (see paragraph 3.6). Relationship managers at lenders are unlikely to relish explaining compounded RFRs to their SME customers.

3.9 Are forward-looking term RFRs an alternative to compounded RFRs?

Not for the majority of loan products.

To replace LIBOR, many loan market participants have called for the development of forward-looking term rates derived from RFRs (**term RFRs**) for each LIBOR currency and tenor. Like LIBOR, term RFRs would make it possible to calculate the interest payable over an interest period at the beginning of that interest period.

However, the UK and US regulators, in particular, have put pressure on the loan markets to switch from using LIBOR to using RFRs without waiting for the development of such forward-looking term RFRs, which may not be available for some time, if at all. One of the perceived advantages of RFRs over IBORs is that RFRs are derived directly from transaction data in very deep markets. By contrast, LIBOR derives from what are now very shallow markets and relies on submissions from a limited number of panel banks participating in those markets. That advantage may not apply to forward-looking term RFRs, which are likely to be based not on overnight borrowing transactions themselves, but on derivative transactions based on the overnight borrowing market.

As noted in paragraph 3.8 above, the Sterling Working Group has made it clear that compounded RFRs are appropriate for the vast majority of the sterling LIBOR loan market, and that a term RFR (or alternative rate) is likely to be required only for certain niche products, including those listed at paragraph 3.8.

Nevertheless, the Sterling Working Group has indicated that it will continue to work on the development of a forward-looking term RFR for SONIA. In its [Roadmap for 2020](#), it suggested this might be ready for publication by Q3 2020. However, this has not yet materialised and it seems unlikely that the Bank of England will launch a forward-looking term RFR until it is comfortable that the sterling market has already transitioned significantly onto compounded RFRs. Progress on the development of forward-looking term RFRs for other LIBOR currencies has been mixed. For example:

- the [ARRC has tentatively suggested](#) a SOFR forward-looking term RFR might be available during the first half of 2021;
- since 9 October 2020, QUICK Corp has been calculating and publishing daily prototype rates of the Tokyo Term Risk-Free Rate (TORF); and
- the National Working Group on Swiss Franc Reference Rates has indicated that a SARON term RFR is unlikely to be feasible and recommends using compounded average in arrears SARON wherever possible.

4 Legacy LIBOR loans

4.1 What are the options for dealing with existing LIBOR-based loans with a term beyond 2021 (legacy LIBOR loans)?

For legacy LIBOR loans that do not contain a Hard-Wired Switch or Hard-Wired Fallback (being the vast majority), there are broadly three options.

- Amend the loan terms so the interest is calculated by reference to an RFR-based rate (or other benchmark acceptable to the relevant regulator). Although few legacy LIBOR loans have been amended to date, most banks with significant legacy LIBOR books are actively planning to adopt this approach, by undertaking major "bulk" repapering projects.
- Amend the loan terms to include a Hard-Wired Switch or Hard-Wired Fallback. Although there have already been isolated examples of amendments of this nature, we do not anticipate there being a large uptake of this option. Once parties know what alternative to LIBOR they want to use and are able to use it, they will generally amend the loan terms to make that the primary source of interest calculation, rather than as a fallback.
- Do nothing, relying on the existing fallbacks in the agreement. Under typical fallbacks, the rate of interest following a permanent discontinuation of LIBOR is likely to be each lender's own cost of funds plus the margin (instead of LIBOR plus the margin). This is clearly unattractive for a borrower. On a syndicated facility agreement, it is also unattractive for an agent, who will have to calculate different interest rates for different lenders. While superficially more attractive for a lender, this is unlikely to be a viable long-term solution. Failing to take active steps to address LIBOR discontinuation could adversely affect a lender's relationship with both its customers and its regulators.

4.2 Are any legislative solutions anticipated to avoid the need to amend legacy LIBOR loans manually?

For the reasons discussed below, particularly the scope of proposed UK, US and EU legislative solutions for "tough legacy contracts", parties to English law legacy LIBOR loans with a scheduled tenor beyond 2021 should still assume that they will need to amend their terms before the end of 2021, unless the loan in question already contains a Hard-Wired Switch or a Hard-Wired Fallback.

In the first two years after Andrew Bailey's July 2017 LIBOR discontinuation announcement (see paragraph 1.1), there was surprisingly little discussion about legislative solutions. Then, in [a speech](#) in New York in July 2019, Mr Bailey (still then chief executive of the FCA) mooted the possibility of legislation helping with the transition of the financial markets away from LIBOR, including "*legislators redefin[ing] LIBOR as RFRs plus fixed spreads for... tough legacy contracts*". "Tough legacy contracts" means those with inadequate fallbacks that are difficult to amend. Legacy LIBOR bonds are usually seen as the most obvious category of "tough legacy", but regulators have also acknowledged the practical difficulties of amending huge volumes of legacy LIBOR loans⁴. Key recent developments in legislative solutions for tough legacy contracts are summarised below.

- **UK.** On 21 October 2020, the UK government introduced a [Financial Services Bill to Parliament](#). If enacted, this will give the FCA additional powers to deal with "hard legacy"

⁴ See, for example the May 2020 [Paper on the identification of Tough Legacy issues](#) by the "Tough Legacy Taskforce" formed by the Sterling Working Group.

contracts, by amending the BMR (as it will apply in the UK following the end of the Brexit transition period on 31 December 2020). Under this proposal, if the FCA determines that LIBOR is no longer representative of the underlying market it represents, it will have the power to:

- allow a "synthetic LIBOR" based on a new methodology to continue to be used in "tough legacy" contracts that the FCA designates;
- otherwise prohibit the ongoing use of LIBOR by UK supervised entities.

However, there is no certainty that the FCA will exercise these powers to create a synthetic LIBOR. If it did, it may choose to do so only for certain currencies or tenors of LIBOR, and only for limited products. And as this synthetic LIBOR mechanism relates to the "use" of LIBOR under the BMR, it also appears that this proposal does not directly apply to commercial loan agreements (see paragraph 1.7).

- **US.** In March 2020, the [ARRC announced](#) a proposed legislative solution for New York law US dollar LIBOR-based contracts. This provides that in existing LIBOR contracts with inadequate fallbacks, references to LIBOR will automatically be replaced with references to a "Recommended Benchmark Replacement" designated by the Federal Reserve Board, the Federal Reserve Bank of New York, or the ARRC. (The paper does not specify what this replacement will be.) This automatic replacement would, for example, override a fallback to a previous LIBOR rate or other rate based on an interbank funding rate. It would not override a fallback to a different publicly quoted rate, such as the prime rate. As a prime rate fallback is a common feature of New York law LIBOR-based business loans, many may be out of scope. Nevertheless, the legislation does not exclude any product types. There appears to have been limited progress on the legislation since this announcement.
- **EU.** On 24 July 2020, the European Commission [published a proposal](#) to amend the BMR to ensure contractual continuity if a major benchmark used in the EU, such as LIBOR, is discontinued or becomes unrepresentative of its underlying market. The Commission proposes that in these circumstances it would be empowered to identify a "statutory replacement rate". This would automatically replace the outgoing benchmark by operation of law in contracts without "suitable fallback provisions" to which supervised entities in the EU are party. However, this would only apply to contracts that are in scope of the BMR, so does not directly apply to commercial loan agreements (see paragraph 1.7).

There is potentially significant overlap between the scopes of these proposals. If they are progressed, the relevant regulators in the UK, US and EU proposals will need to work closely together to ensure specific transactions are not affected by them in inconsistent ways.

4.3 [Are any protocols available or anticipated to streamline the process of amending legacy loans?](#)

It is not anticipated that an ISDA style protocol (see paragraph 1.6) will be developed for amending legacy LIBOR loans. The main reasons for this are:

- loan terms are not as standardised as derivative terms;
- derivatives are always bilateral. If both parties to an existing derivatives transaction sign up to a protocol, this will amend the terms of that transaction. Facility agreements often have multiple parties, making it harder to effect change in this way;

- many derivative contracts are between financial institutions. If a relatively small number of financial institutions sign up to an ISDA Protocol, this can result in the amendment of a significant number of derivative contracts. By contrast, most borrowers are only party to one (or a small number) of facility agreements at any one time.

4.4 What are the key market developments that will enable the widespread amendment of legacy LIBOR loans?

For loans that will transition to compounded RFRs (anticipated to be the majority):

- banks completing the process of recalibrating their loan operations systems, and the software supporting them, so that they are compatible with compounded RFRs;
- substantive transition away from LIBOR on new transactions, with a reasonably settled market approach within each relevant product area on how compounded RFRs are to be used in place of LIBOR – this is likely to be particularly important on syndicated transactions; and
- the publication of market-approved credit spreads between the main LIBOR tenors and equivalent compounded RFRs (on which, see paragraph 4.5).

In deciding when to begin their LIBOR repapering projects, lenders will also need to take account of milestones set by regulators and transition oversight groups. In its [September 2020 newsletter](#), the Sterling Working Group stated that market participants should start this process "where viable" as early as Q4 2020. We anticipate that most lenders with large LIBOR legacy loan books will begin active conversions in the first half of 2021.

4.5 How advanced is the process of creating and publishing credit adjustment spreads for use in the loan markets?

ISDA has taken the lead in identifying a preferred method of calculating credit adjustment spreads between an IBOR that is being replaced and an RFR-based rate that is replacing it. For derivative transactions it has determined that this spread should be the median average difference between the two rates over the previous five years. The spread will be calculated and published by Bloomberg on an "Index Cessation Event" – being a formal announcement that the IBOR will be discontinued or (in the case of LIBOR) a non-representativeness statement. Each spread will be fixed at that point. Fluctuations in the relevant IBOR (while it remains published) and the RFR-based rate after the Index Cessation Event will have no impact on the credit adjustment spread.

In September 2020, the Sterling Working Group published a [statement of recommendation](#) on credit adjustment spread methodologies for use with legacy sterling LIBOR cash products (including loans), in which it endorsed ISDA's approach to credit adjustment spreads. The ARRC had [already confirmed](#) the same recommendation for US dollar cash products.

However, the precise scenario anticipated in ISDA's credit adjustment spread methodology is only relevant to LIBOR contracts with a Hard-Wired Fallback that applies automatically following an Index Cessation Event. In the English law markets, floating rate notes have increasingly included these Hard-Wired Fallbacks, in part to ensure compliance with the BMR. By contrast, commercial loans are (broadly) outside the scope of the BMR and to date have rarely done so (see paragraph 1.7). It is therefore more likely that parties to LIBOR loans will be amending them manually in advance of an "Index Cessation Event".

So it is helpful that, for the purposes of calculating spreads for derivatives fallbacks, Bloomberg is [already publishing](#) "indicative" credit adjustment spreads on a "what if" basis before the discontinuation of LIBOR (i.e. what would the spread be if the Index Cessation Event occurred today). Parties to cash products amending LIBOR contracts before an Index Cessation Event may be able to use these published rates to determine an appropriate credit adjustment spread at the point of amendment.

Our experience is that parties are also using these indicative rates to help set credit adjustment spreads in new loans with a Hard-Wired Switch (see paragraph 2.1). However, when they do so, the facility agreement generally refers to the spread as a specified percentage rate per annum (i.e. determined at the point of signing), rather than as whatever a published (indicative) spread is on the date of the switch.

4.6 [Is there a standardised documentary approach to amending the terms of legacy LIBOR loans?](#)

On 25 October 2019, the LMA released another document in exposure draft form – the Reference Rate Selection Agreement (the **RRSA**). The purpose of the RRSA is to help streamline the process of replacing LIBOR with an RFR-based rate in the many legacy transactions that have tenors beyond 31 December 2021.

The scheme of the RRSA is that:

- all parties to the legacy LIBOR-based facilities agreement whose benchmark rate is to be replaced will execute the RRSA;
- in the RRSA, those parties will make high-level selections from a series of pre-determined key options for amending the legacy facilities agreement;
- the RRSA will authorise the agent and the obligors to enter into a separate amendment agreement amending the legacy facilities agreement; and
- that amendment agreement will bind all parties to the legacy facilities agreement and implement in detail the high-level key choices taken by all parties in the RRSA.

The RRSA is therefore not a recommended form of amendment agreement. It simply provides a mechanism to enable the agent and borrower to agree amendments (in a separate document) within an agreed framework, without having to obtain further consents from the syndicate. The RRSA therefore would have no application in a bilateral transaction.

It is too early to tell whether there will be significant take-up of the RRSA when syndicated legacy LIBOR loans are amended. Other than the RRSA, there are no standard or recommended form documents available to deal with the amendment of legacy LIBOR loans.

4.7 [Who will instigate the amendment of legacy LIBOR loan agreements?](#)

We anticipate that lenders will generally instigate this process, on both bilateral and syndicated transactions. On syndicated transactions, a lender wishing to start an amendment process would first need to put forward a proposal to the agent, and ask it to circulate this among the syndicate for discussion and agreement, before any proposal is put to the borrower.

4.8 Who will pay for the amendment of legacy LIBOR loan agreements?

Facility agreements generally provide that if a borrower requests an amendment to the loan terms, it must pay the reasonably incurred costs of the lender (on a bilateral transaction) or agent (on a syndicated transaction) in connection with that amendment. As a result, lenders and agents rarely have to pay for amendment costs – loan terms are usually only ever amended at the request of the borrower. However, repapering lenders' legacy LIBOR loans is likely to be an exception – it is more likely that lenders will instigate this process (see above).

The terms of some recent loans do specifically require the borrower to pay for the lender's costs in connection with LIBOR-related amendments, regardless of who instigated the amendment (see paragraph 2.6). However, this is the exception.

Otherwise, if a lender were determined that its borrower should pay for the lender's costs, it potentially has some commercial leverage to engineer this. It could point out that if the loan terms are not amended, the borrower is likely to have to pay the lender's cost of funds plus margin after LIBOR is discontinued (see paragraph 4.1).

It is too early to say how lenders will approach this. However, most banks are treating the amendment of their large legacy LIBOR books as a regulatory-driven project, not unlike ring-fencing, EMIR and MiFID2. It is quite possible that, as with those other project types, banks will not seek to pass on their costs to their customers.

4.9 If a legacy LIBOR loan is subject to interest rate hedging, will that hedging need to be amended at the same time as the loan terms?

Yes, in order to ensure that the borrower (and lender(s)) benefit from a true hedge of interest rate risk, the terms of the hedging will need to be amended so that the floating rate element in it is consistent with the amended floating rate in the loan.

4.10 Can finance-linked hedging terms be amended by using the ISDA Protocol and Hard-Wired Fallbacks?

For background information on ISDA's work on fallbacks and related Protocol, see paragraph 1.6. Our view is that these mechanisms are not suitable for amending finance-linked hedging terms for two main reasons:

- the Hard-Wired Fallbacks in the updated 2006 ISDA Definitions will only take effect following specified "Index Cessation Events" (including, in the case of LIBOR, the publication of a non-representativeness statement. Huge numbers of hedged legacy LIBOR loan terms will be amended at various times between now and the end of 2021. The parties will need to effect the amendment of the hedging terms at the same time; and
- for each LIBOR currency and tenor the fallback provided for in the updated 2006 ISDA Definitions will comprise a standard RFR-based rate plus a standard credit adjustment spread. This will not always correspond to the rate replacing LIBOR when a legacy LIBOR loan is amended.

We therefore anticipate that parties to legacy finance-linked hedging transactions will need to amend their terms manually, at the same time as amending the legacy LIBOR loan terms to which the hedging relates.

4.11 What conduct and litigation risk issues should lenders consider when amending legacy LIBOR loans?

The specific conduct obligations of a lender will depend on the jurisdiction(s) in which it is incorporated or operating. Regulated entities in the UK should, in particular, note the FCA's [Questions and answers for firms about conduct risk during LIBOR transition](#), published in November 2019. In relation to a lender's engagement with its corporate borrowers, we consider the following to be the key litigation risks:

- *Exercising contractual discretions.* It is anticipated that most commercial legacy LIBOR loans with a tenor beyond 2021 will transition to an RFR-based rate by amendment agreement. However, in some legacy LIBOR loans that transition process may involve the lender, agent or other finance party exercising a discretion. For example, if a loan has a Hard-Wired Fallback or gives the lender a unilateral right to amend the terms following certain trigger events, the lender may be responsible for adjusting the margin or incorporating a credit adjustment spread to account for the difference between LIBOR and the replacement rate. Where a party to an English law contract exercises a discretion of this nature, it is generally under an obligation not to exercise that discretion irrationally, capriciously or arbitrarily (sometimes referred to as a "Braganza duty"). Similar implied duties may apply under other laws. One would not expect a lender to fail to meet this obligation, but lenders should keep clear records of their decision-making processes before exercising contractual discretions of this nature.
- *Avoiding assumption of an advisory role.* Across all lending products, lenders will need to engage with their customers to explain how they propose to amend existing loan terms to address the risk of LIBOR discontinuation. However, it is important that lenders avoid creating an advisory relationship with their borrowers. For example, in product areas where compounded RFRs are impractical (see paragraph 3.8) there may be different approaches to replacing LIBOR across the market for that product. Where that is the case, if a lender "recommends" a specific option to a customer, it may incur a duty to the client in respect of that option's suitability to the client. Lenders should make clear that borrowers are responsible for taking their own decisions, particularly where those customers do not have their own legal counsel.

Appendix – "Lag" method v. "observation shift" method – a worked example

For background information about the lag and observation shift methods, see paragraph 3.6 above. Please note that in the worked example below, compounded interest is calculated on a "cumulative" basis (see paragraph 3.7 above).

Scenario

- Sterling loan
- Interest rate = compounded average in arrear SONIA
- Two week interest period from 10 to 24 April
- Five business day "look-back" between interest period and observation period

SONIA rates during and immediately before interest period

Day/Date	SONIA	Interest Period ⁵	Observation Period ⁶
Monday, 1 April	a%		
Tuesday, 2 April	b%		
Wednesday, 3 April	c%		
Thursday, 4 April	d%		
Friday, 5 April	e%		
Saturday, 6 April	No rate – weekend		
Sunday, 7 April	No rate – weekend		
Monday, 8 April	f%		
Tuesday, 9 April	g%		
Wednesday, 10 April	h%		
Thursday, 11 April	i%		
Friday, 12 April	j%		
Saturday, 13 April	No rate – weekend		
Sunday, 14 April	No rate – weekend		
Monday, 15 April	k%		
Tuesday, 16 April	l%		Look-back business day 5
Wednesday, 17 April	m%		Look-back business day 4
Thursday, 18 April	n%		Look-back business day 3
Friday, 19 April	o%		Look-back business day 2
Saturday, 20 April	No rate – weekend		Non-business day
Sunday, 21 April	No rate – weekend		Non-business day
Monday, 22 April	No rate – bank holiday		Non-business day
Tuesday, 23 April	p%		Look-back business day 1
Wednesday, 24 April	q%		
Thursday 25 April	r%		
Friday 26 April	s%		

⁵ The days in an interest period are counted by the number of "overnights". So a 14-day interest period such as this straddles 15 days.

⁶ An observation period always has the same number of business days as the interest period to which it relates (in this case, nine). It may have a different number of calendar days (as here). Where there is a five business day "look-back", the observation period ends on "but excludes" the date five business days before the end of the interest period. Five business days before the end of this interest period is Tuesday 16 April, so the observation period ends on Monday 15 April.

Calculation of interest (i) using the lag method

Formula for calculation of interest

$$\left[\prod_{i=1}^{d_b} \left(1 + \frac{SONIA_{i-5LBD} \times n_i}{365} \right) - 1 \right] \times \frac{365}{d_c}$$

Extract from definitions

i = a series of whole numbers from one to d_b , each representing the relevant London Banking Day in chronological order from, and including, the first London Banking Day in the relevant Interest Period. [5 BD lag addressed through the formula]

Calculation of interest (using SONIA rates shown on previous page)

$$\left[\left(1 + \frac{0.0c}{365} \right) \left(1 + \frac{0.0d}{365} \right) \left(1 + \frac{0.0e \times 3}{365} \right) \left(1 + \frac{0.0f}{365} \right) \left(1 + \frac{0.0g}{365} \right) \left(1 + \frac{0.0h}{365} \right) \left(1 + \frac{0.0i}{365} \right) \left(1 + \frac{0.0j \times 4}{365} \right) \left(1 + \frac{0.0k}{365} \right) - 1 \right] \times \frac{365}{14}$$

Number of calendar days in **Interest Period** (see footnote 4 on previous page)

Calculation of interest (ii) using the observation shift method

Formula for calculation of interest

$$\left[\prod_{i=1}^{d_b} \left(1 + \frac{SONIA_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{d_c}$$

With the lag method, SONIA on 12 April ($j\%$) gets weighting of $\times 4$, based on the number of days between 19 April (5BDs ahead) and the next day SONIA is published (19th, 20th, 21st, 22nd).

With the observation shift method, SONIA on 12 April gets weighting of $\times 3$, based on the number of days between 12 April and the next day SONIA is published (12th, 13th, 14th).

Extract from definitions

i = a series of whole numbers from one to d_b , each representing the relevant London Banking Day in chronological order from, and including, the first London Banking Day in the relevant Observation Period. [5 BD shift addressed through the definitions.]

Observation Period = the period from and including the date falling five London Banking Days prior to the first day of the relevant Interest Period...and ending on, but excluding, the date falling five London Banking Days prior to the Interest Payment Date for such Interest Period.

Calculation of interest (using SONIA rates shown on previous page)

$$\left[\left(1 + \frac{0.0c}{365} \right) \left(1 + \frac{0.0d}{365} \right) \left(1 + \frac{0.0e \times 3}{365} \right) \left(1 + \frac{0.0f}{365} \right) \left(1 + \frac{0.0g}{365} \right) \left(1 + \frac{0.0h}{365} \right) \left(1 + \frac{0.0i}{365} \right) \left(1 + \frac{0.0j \times 3}{365} \right) \left(1 + \frac{0.0k}{365} \right) - 1 \right] \times \frac{365}{13}$$

Number of calendar days in **Observation Period** (see footnote 4 on previous page)

