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THE LMA'S RECOMMENDED FORMS OF FACILITY AGREEMENT FOR LOANS REFERENCING RISK-FREE RATES

A Borrower's Guide

Produced for the Association of Corporate Treasurers
by Slaughter and May

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Introduction

Since the beginning of 2021, the volume of loans referencing risk-free rates (**RFRs**) has increased sharply. Some borrowers have moved to RFR terms to the exclusion of LIBOR terms. Others have opted for a "rate switch" mechanism, meaning the facility converts from LIBOR terms to RFR terms automatically on a future date or the occurrence of specified triggers. The Loan Market Association (**LMA**) exposure draft RFR facility templates, updated last November to reflect the recommended SONIA loan conventions developed by the Working Group on Sterling Risk-Free Reference Rates (UK RFRWG), have played a key role in increasing the numbers of borrowers that are including RFR terms in their loan facilities.

The LMA's exposure draft RFR terms have been used in term and revolving syndicated loans, both in sterling and in other currencies. They have also been adapted for bilateral loans. In most cases, the LMA's framework drafting for RFRs has been adopted with fairly minimal adjustment, suggesting that lenders are becoming broadly comfortable with the LMA's approach. This enabled the LMA to replace the exposure drafts with its first recommended forms of facility agreement for loans referencing RFRs (the **LMA RFR Templates**) on 30 March 2021. The RFR terms reflected in the LMA RFR Templates will be rolled out across the LMA's documentation library in due course.

The publication of the LMA RFR Templates is a significant development, given new LIBOR loans are anticipated to disappear entirely over the course of this year. The UK RFRWG's 31 March 2021 target for the cessation of new sterling LIBOR loans has already passed, so for sterling borrowers, LIBOR is no longer an option. The deadlines for the cessation of new LIBOR business in other currencies are imminent. In the syndicated loan market, attainment of the various Working Groups' targets for the cessation of new LIBOR business is heavily dependent on the availability of operationally workable and standardised documentation terms.

The interest provisions of the LMA RFR Templates are quite complex in comparison to LIBOR terms. Treasurers contemplating their first RFR-linked loan might feel that the transition is akin to learning a new language. The terminology is different, the conventions are different and there are multiple options, where previously there was a single route. It will take time for the vocabulary of RFRs to become as entrenched and familiar as the lexicon of LIBOR. However, the growing consensus on the best approach to RFR lending, including the emergence of the LMA RFR Templates, suggests that fluency should be easier to attain than was the case for borrowers who worked with RFRs during 2020.

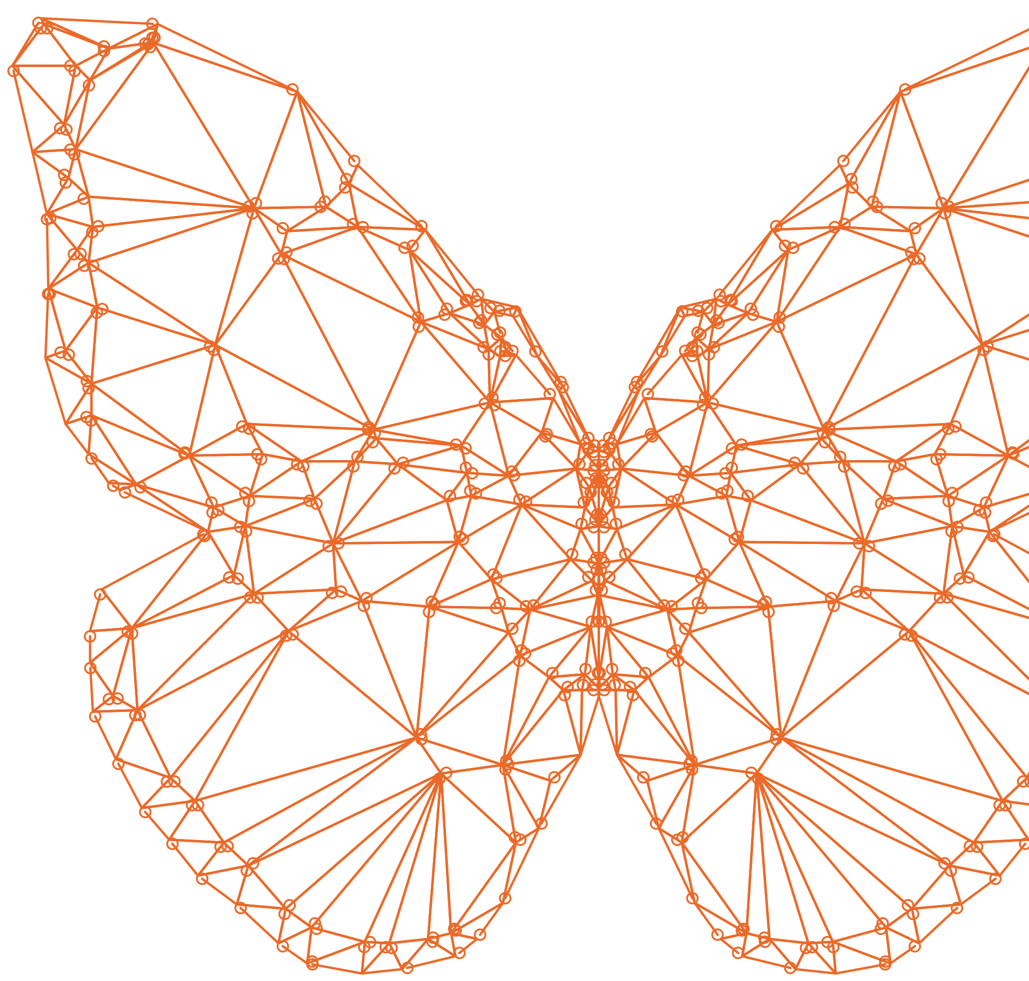
This Guide aims to assist treasurers approaching the LMA RFR Templates for the first time, whether in the course of raising new money, or as a result of the need to amend existing LIBOR facilities that extend beyond the end of this year:

- **Part I** covers "LIBOR Transition Essentials", a brief background to RFRs and the UK's approach to LIBOR transition in the loan market, the UK RFRWG's recommended conventions for referencing RFRs in loans and an overview of the LMA RFR Templates.
- **Part II** is a commentary on the interest rate and related provisions of the most comprehensive of the LMA RFR Templates, the LMA's recommended form of facility agreement for multi-currency facilities referencing RFRs and/or term rates (the **Compounded/Term MTR**). It explains the key provisions of the Compounded/Term MTR and how the RFR terms differ from IBOR terms. It also highlights the provisions of the Compounded/Term MTR that borrowers might seek to adjust or negotiate.
- **Part III** contains links to sources of further information and contact details for the Association of Corporate Treasurers (**ACT**) and the Slaughter and May LIBOR transition teams.

The commentary in Part II has been prepared on the assumption that most corporates reading this Guide will not be LMA members and so will not have access to the LMA documentation library. The key provisions are therefore summarised alongside our observations on those provisions. Treasurers may, however, find it helpful to review this Guide alongside a copy of the relevant terms, to properly familiarise themselves with the LMA RFR Templates. The LMA's RFR documentation is available to LMA members only, although it can be provided to non-members (for example, by legal advisers or relationship banks) in the course of a transaction. Some borrowers have joined the LMA, providing them with direct access to LMA documentation and guidance on LIBOR transition. Further information on LMA membership is available on the LMA website.

This Guide considers only the interest rate and related provisions of the LMA RFR Templates. It does not cover other provisions of the Compounded/Term MTR that borrowers might wish to discuss with their lenders, which remain unchanged from the LMA's pre-existing LIBOR/EURIBOR facility templates. The ACT Borrower's Guide to the LMA's Investment Grade Agreements (the **ACT Borrower's Guide**) contains comprehensive guidance for borrowers on the provisions of the LMA facility templates more generally. The current edition of the ACT Borrower's Guide speaks to the LMA multi-currency term and revolving facilities agreement referencing LIBOR and EURIBOR, from which the Compounded/Term MTR is derived. Our aim is to produce a fully revised version of the ACT Borrower's Guide that speaks to the Compounded/Term MTR in due course, when RFR lending terms have become more established.

Slaughter and May
12 April 2021



Defined terms

€STR means the Euro Short-Term Rate.

5YHLB means the CAS calculation methodology based on the historic median between LIBOR and the relevant RFR over a five-year lookback period from an agreed date.

ACT means the Association of Corporate Treasurers.

ACT Borrower's Guide means the ACT Borrower's Guide to the LMA's Investment Grade Agreements, produced for the ACT by Slaughter and May (September 2017).

ARRC means the Alternative Reference Rates Committee, the US RFR working group.

BISL means Bloomberg Index Services Limited, appointed by ISDA to publish the fallback rates and CAS for use in derivatives on the cessation/pre-cessation of LIBOR.

CAS means credit adjustment spread, a separate amount to (optionally) be added to the compounded RFR to account for the economic difference between LIBOR and the relevant RFR.

CCR means cumulative compounded rate, being the compounded RFR rate applicable over a given period.

Compounded/Term MTR means the LMA recommended forms of multi-currency term and revolving facilities agreement referencing compounded /term rates published on 30 March 2021.

Compounded Rate Currency means a currency made available under the Compounded/Term MTR and for which the interest rate is determined by reference to a compounded RFR.

Compounded Rate Loan means a loan in a Compounded Rate Currency.

Euro Working Group means the Working Group on Euro Risk-Free Rates.

FCA means the UK Financial Conduct Authority.

Forward approach means the CAS calculation methodology based on the forward-looking basis swap market, involving using forward-looking basis swaps to calculate the implied future spread between the relevant RFR and LIBOR over the life of the loan and calculated as the linear interpolation between differing tenors of LIBOR swaps and RFR swaps.

FSB means the Financial Stability Board.

IBOR MTR means the LMA recommended form of multi-currency term and revolving facilities agreement.

ISDA IBOR Fallbacks means the ISDA Supplement and ISDA Protocol (each as separately defined).

ISDA Protocol means ISDA's IBOR Fallbacks Protocol, published in October 2020 and effective from 25 January 2021.

ISDA Supplement means ISDA's IBOR Fallbacks Supplement, published in October 2020 and effective from 25 January 2021.

LMA means the Loan Market Association.

LMA RFR Templates means the LMA recommended forms of facility agreement for loans referencing RFRs, comprising the Compounded/Term MTR, the Rate Switch MTR and the Single Currency MTR (in each case, with and without observation shift).

Lookback with observation shift (or **shift**) means the convention pursuant to which the daily RFR is weighted in the compounding calculation according to the number of calendar days in the observation period rather than the number of calendar days in the interest period.

Lookback without observation shift (or **observation lag**) means the convention pursuant to which the daily RFR is weighted in the compounding calculation according to the number of calendar days in the interest period rather than the number of calendar days in the observation period.

NCCR means non-cumulative compounded rate, as recommended by the UK RFRWG in the Sterling Loan Conventions, calculated by taking the CCR for a given day and deducting the CCR for the previous day, giving a daily compounded rate that allows the calculation of a daily interest amount.

Pre-cessation, in the context of a reference rate, refers, in summary to the date on which a relevant supervisor declares that the rate is no longer representative of the underlying market or economic reality it is intended to represent.

PRA means the Prudential Regulatory Authority.

Rate Switch MTR means the LMA recommended forms of multi-currency term and revolving facilities agreement incorporating rate switch provisions published on 30 March 2021.

RFR means risk-free rate.

RRSA means the LMA Reference Rate Selection Agreement, at the time of writing still in exposure draft form.

SARON means the Swiss Average Rate Overnight.

Single Currency MTR means the LMA recommended forms of multi-currency term and revolving facilities agreement referencing either SONIA or SOFR published on 30 March 2021.

SOFR means the Secured Overnight Financing Rate.

SONIA means the Sterling Overnight Index Average.

Sterling Loan Conventions means the UK RFRWG's Recommendations for SONIA Loan Market Conventions published in September 2020.

Swiss Working Group means the National Working Group on Swiss Franc Reference Rates.

Term Rate Currency means a currency made available under the Compounded/Term MTR and for which the interest rate is determined by reference to a forward-looking IBOR (eg **EURIBOR**).

Term Rate Loan means a loan in a Term Rate Currency.

TONAR means the Tokyo Overnight Average Rate.

TSRR means term SONIA reference rate, a forward looking term rate derived from SONIA.

UK RFRWG means the Working Group on Sterling Risk-Free Reference Rates.

Working Groups means the national working groups convened in each LIBOR currency jurisdiction to catalyse market-led transition from LIBOR to alternative rates.

Capitalised terms used in this Guide and not otherwise defined have the meanings given in the Compounded/Term MTR.

PART I - LIBOR TRANSITION ESSENTIALS

1. Working Groups

1.1 A market-led effort

Following the Financial Stability Board (**FSB**) recommendation in 2014 that RFRs should be pursued as alternatives to LIBOR, national regulators convened working groups in each LIBOR currency jurisdiction (the **Working Groups**) to catalyse market-led transition from LIBOR to alternative rates. Each main Working Group has a network of sub-committees and task forces made up of specialists with a remit to focus on particular products or particular aspects of the transition project (such as systems and infrastructure). These Working Groups have taken the lead in recommending replacement rates and related calculation conventions and practices. They have also been driving the transition timetable.

The Working Groups do not have regulatory powers, but their recommendations, which are the product of extensive consultation and industry engagement, are having, and will continue to have, a material influence on practice. Further, global and national financial sector regulators have emphasised their support for market-led transition efforts. The Bank of England and the Financial Conduct Authority (**FCA**), for example, have made clear to regulated firms that they are expected to adhere to industry and Working Group transition targets. The FCA has also stated that firms are more likely to be able to demonstrate that they have complied with their regulatory obligations to treat customers fairly in this context if they adopt solutions recognised by the relevant Working Groups.

The loans sub-committee of the UK RFRWG, has led the development of a recommended approach to transitioning syndicated and bilateral loans from LIBOR. The UK RFRWG's recommendations for the sterling loan market are drawn together in the recently updated Best Practice Guide for GPB Loans. This is essential reading for sterling borrowers.

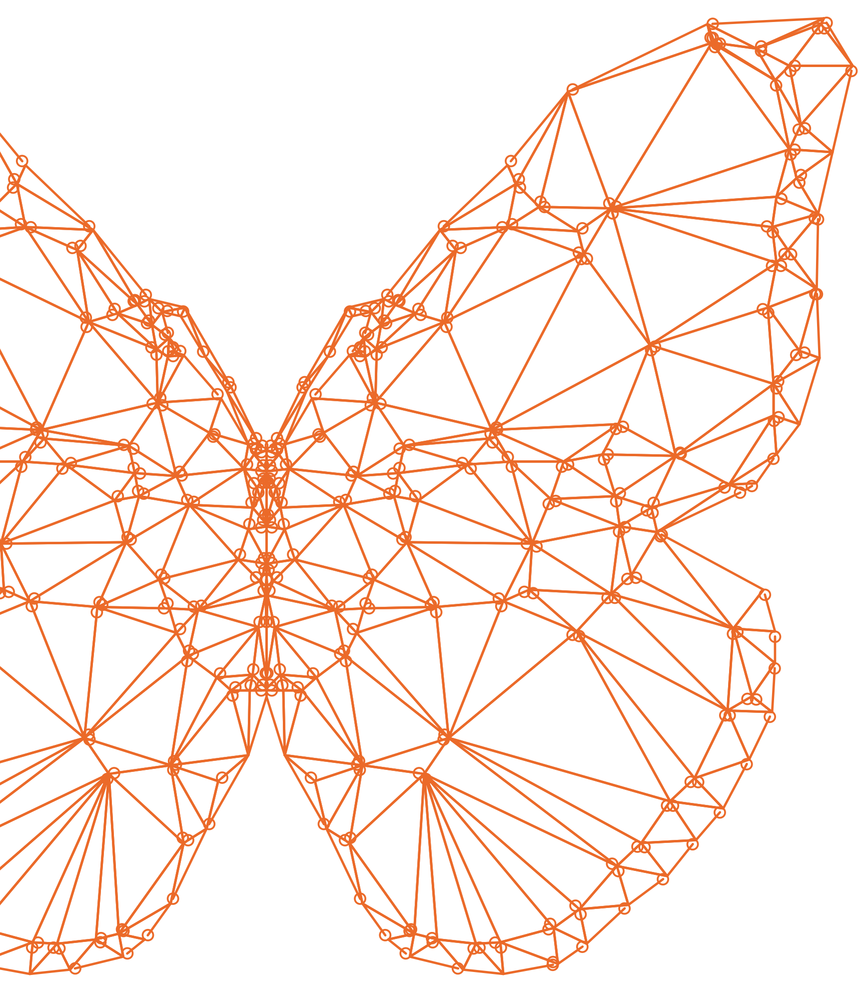
The UK RFRWG's recommendations are reflected in the LMA RFR Templates, which were produced, in accordance with the normal LMA process, by an LMA documentation working party predominantly comprised of financial institutions and legal advisers.

The ACT participates in the UK RFRWG, the loans sub-committee (as well as other product sub-committees and task forces) and the LMA documentation working party, alongside a small group of treasurers representing larger corporates.

1.2 Cross-currency co-ordination

The Working Groups and the various trade associations are making efforts to co-ordinate their approach to LIBOR transition across products and currencies. However, the fact that LIBOR, a benchmark with a single consistent methodology, is being replaced with a menu of single currency rates with differing characteristics, inevitably results in some variations. The FSB's communications emphasise the need for cross-jurisdictional co-operation, but acknowledge that complete homogeneity in terms of the approach to replacement rates will not be possible in a multi-rate environment.

This gives rise to challenges in the context of multi-currency products such as certain loans, where users may need to have an awareness of the conventions and recommendations of the Working Groups in each relevant currency jurisdiction. The international nature of the financial markets also means there may be differences in the replacement rates and calculation conventions applicable to certain currencies (eg **USD**) between those applicable in domestic and those used in cross-border deals. The approach to managing currency variations in the LMA RFR Templates is outlined at section 3.8 of Part II.



2. The transition timetable

2.1 When will LIBOR cease to be published?

The diminishing availability of LIBOR loans is driven by the relatively short amount of time left before the majority of LIBOR rates cease to be published. Since mid-2017, the regulators have been emphasising that the availability of LIBOR should not be relied on after 31 December 2021. On 5 March 2021, the FCA finally confirmed the dates on which all 35 LIBOR rates will either cease to be published, or will be considered to "lose representativeness".

According to the FCA's announcement, 24 of the 35 LIBOR rates that are currently published daily will cease to be published after 31 December 2021 in accordance with the expected timetable. Certain USD LIBOR rates will continue to be published through to 30 June 2023. A third and limited category of sterling, USD and JPY rates may continue to be published based on a revised methodology, the so-called "synthetic LIBOR".

The dates and actions applicable to each currency/tenor pair are summarised in the table overleaf.

LIBOR cessation/pre-cessation dates

	Overnight /Spot Next	1 wk	1 mth	2 mth	3 mth	6 mth	12 mth
Sterling	Ces 31.12.21	Ces 31.12.21	NR 31.12.21 Synth to ?	Ces 31.12.21	NR 31.12.21 Synth to ?	NR 31.12.21 Synth to ?	Ces 31.12.21
Dollar	Ces 30.06.23	Ces 31.12.21	NR30.06.23 Synth to ?	Ces 31.12.21	NR30.06.23 Synth to ?	NR30.06.23 Synth to ?	Ces 30.06.23
Euro	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21
CHF	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21	Ces 31.12.21
JPY	Ces 31.12.21	Ces 31.12.21	NR 31.12.21 Synth to 31.12.22?	Ces 31.12.21	NR 31.12.21 Synth to 31.12.22?	NR 31.12.21 Synth to 31.12.22?	Ces 31.12.21

Key

Ces - publication of LIBOR rate ceases

NR - LIBOR rate is non-representative

Synth - FCA to consult on publication of a synthetic LIBOR rate

2.2 "Pre-cessation" and synthetic LIBOR

The concept of "synthetic LIBOR" stems from the UK's proposal to protect the continuity of certain legacy LIBOR contracts by statute. The Financial Services Bill 2021, which at the time of writing is making its way through Parliament, empowers the FCA, in summary, to require the continued publication of LIBOR, following it losing representativeness, for a specified period using a synthetic methodology.

A rate losing representativeness means it is considered by the regulator to have ceased being representative of the underlying market or economic reality it is supposed to represent, and that representativeness will not be restored. A rate becoming non-representative in this way may be a trigger for the application of fallback rate provisions, rate switch provisions, or clauses providing for the re-negotiation of the agreement in question to replace the relevant rate, all of which may appear in LIBOR-referencing loans. Such triggers are often referred to in the context of LIBOR transition as "**pre-cessation**" triggers. The application of pre-cessation triggers in the context of the LMA RFR Templates is discussed in section 8 of Part II.

If a rate such as LIBOR loses representativeness, regulated financial institutions will be prevented from using it in many contexts by the EU and UK regulatory framework that governs the use of important benchmarks. For all practical purposes, this means that if a LIBOR rate becomes non-representative, the consequences are no different to had it ceased.

The purpose of the FCA's formal determination that certain LIBOR rates will lose representativeness on a particular date is that a loss of representativeness, under the provisions of the Financial Services Bill 2021, paves the way for the FCA to take steps, if the conditions in the Bill are satisfied, to replace the non-representative rate with a synthetic LIBOR rate.

In policy statements published alongside its 5 March announcement, the FCA has indicated that "synthetic LIBOR" is likely to comprise a forward-looking term rate version of the RFR in the relevant currency (eg term SONIA, see section 3.3 below) plus a fixed credit adjustment spread calculated on the 5 year historic median basis (see section 6 below). FCA-regulated institutions will only be allowed to use synthetic LIBOR to the extent specifically permitted by the FCA. The FCA is expected to consult further on the availability of, and uses for, synthetic LIBOR during Q2 2021.

2.3 What does this mean for the availability of LIBOR loans?

The provisions in the Financial Services Bill 2021 and the creation of synthetic LIBOR are aimed solely at preventing disruption to certain "tough" legacy LIBOR instruments that cannot be transitioned and do not contain appropriate fallback triggers dealing with the cessation or pre-cessation of LIBOR. Precisely which contracts will fall within the scope of this regime, the duration of synthetic LIBOR and the existence of any safe-harbour provisions that might protect users of synthetic LIBOR from the risk of related litigation, remain subject to the on-going legislative and regulatory process. The FCA is therefore continuing to urge market participants to take active steps to transition legacy instruments, rather than rely on this, or any other, legislative solution[1].

What is clear is that synthetic LIBOR, if it is published at all, will not be available for use in new loans and refinancings. Companies raising or refinancing LIBOR loans are expected to use alternative rates, in accordance with the transition timetable set by the Working Groups in the relevant currency jurisdictions:

- **Sterling**: The deadline set by the UK RFRWG for the cessation of new sterling LIBOR-referencing loans expiring after the end of 2021 was 31 March 2021. New sterling loans that extend beyond the end of 2021 (including refinancings) are no longer available on LIBOR terms.
- **USD**: The Alternative Reference Rates Committee (**ARRC**), the US RFR working group, has set a target of the end of Q2 2021 for the cessation of new USD LIBOR loans[2], although in practice, it appears that the deadline for the cessation of USD LIBOR business is the end of 2021 (see section 2.4 below). New USD LIBOR loans are therefore anticipated to be available for the remainder of this year, but not thereafter.
- **CHF, JPY and euro**: The Swiss and Japanese RFR working groups have recommended that new LIBOR loans should cease after the end of Q2 2021. As euro LIBOR is rarely used, and there are no current plans to discontinue EURIBOR (see section 3.2 below), formal transition deadlines have not been set, but the effective deadline for the cessation of new euro LIBOR business is 31 December 2021, when euro LIBOR will cease to be published.

The most recent iteration of the UK regulators' expectations is set out in a Dear CEO letter written by the FCA and the Prudential Regulatory Authority (**PRA**) on 26 March. This letter underlines strongly the expectation that from 1 April, there will be no incremental sterling LIBOR business. It states that new issuance after that date and expiring beyond end 2021 would "*potentially be viewed as poor risk management and poor governance of [LIBOR] transition*". In the context of syndicated lending specifically, the regulators' view is that if certain banks in the syndicate are proving an obstacle to RFRs, they should be not be included in the syndicate. The Dear CEO letter also states that firms are expected to adhere to foreign working group milestones in relation to the cessation of LIBOR business in other currencies and that the regulators expect firms to work "*with pace and intensity to further the adoption of RFRs in all markets in which they are active*".

The letter does note that if end-users ie borrowers are not ready for RFRs, alternative funding solutions are available, such as "*the use of a fixed rate, alternative floating rate or short-term LIBOR-linked facility that expires before end 2021*". This potentially provides some breathing space for sterling borrowers that need to raise funds but are not quite ready for RFRs from an operational perspective. A short term sterling LIBOR-linked facility could be put in place that rolls into a RFR-linked facility (via a rate switch or forward start mechanism) at the end of the year if banks were willing. However, we would

[1] Legislative solutions to facilitate LIBOR transition have also been put forward by the EU and in the US. While each jurisdiction is taking a slightly different approach, in common with the UK's proposals, the EU and US frameworks leave the precise scope of application to be determined by secondary measures.

[2] ARRC Best Practices for LIBOR Transition.

expect that the application of any alternative solutions will be very limited and lenders would need to be convinced that RFRs are not possible, as well as having a clear indication of when the borrower is likely to be ready to transition to RFRs.

Based on the above, while the regulators have put a brake on new sterling LIBOR loans extending beyond the end of the year, loans in other LIBOR currencies may continue to be written in the remaining months until the deadlines specified above by the authorities in the relevant country. To that extent, borrowers have the ability to stagger their transition to RFRs by currency. However, it is to be anticipated that any new LIBOR faciltiies will need to include rate switch provisions in most cases that provide for the automatic switch from LIBOR to RFRs at the appropriate time. See further section 2.4 below in relation to USD LIBOR loans, and section 2.6 below in relation to rate switch provisions and the transition of legacy LIBOR loans generally.

2.4 Considerations in relation to USD LIBOR loans

The proposal, now confirmed, to continue to publish most of the USD LIBOR tenors until 30 June 2023 has prompted queries about whether the end of Q2 2021 remains the ARRC's target date for the cessation of new USD LIBOR business. The extended publication of certain USD LIBOR tenors to June 2023 is intended solely to allow more time for the run off of legacy USD LIBOR contracts (it is estimated that some 60% of USD LIBOR exposures will run off by that date, substantially reducing the legacy book to be transitioned). The extension should not mean that USD LIBOR continues to be used for new deals. The ARRC's recommendation remains that there should be no more USD LIBOR loans after the end of Q2. The US authorities' supervisory guidance encourages banks to "*cease entering into new contracts that use USD LIBOR as a reference rate as soon as practicable and in any event by December 31 2021*".

The US supervisory guidance rather than the ARRC's deadline may drive the timetable for the cessation of new USD LIBOR loans in the London market and it would be helpful if this could be clarified. The FCA indicated when the extension proposal emerged that there will be restrictions on the new use of USD LIBOR by UK regulated entities after the end of 2021. This was reinforced in the Dear CEO letter circulated by the FCA and the PRA on 26 March 2021 which states that regulated firms "*should ensure they cease new use of USD LIBOR as soon as practicable and no later than the end of 2021, in line with the supervisory guidance issued by the US authorities*".

Borrowers in need of new USD facilities between now and the end of 2021, therefore may have the option of retaining LIBOR for USD drawings. However, this is expected to be on the basis that the documents include a rate switch to effect the automatic implementation of alternative rates, or alternatively, are re-opened at an appropriate future date to implement the amendments required to accommodate alternative rates.

Borrowers raising new USD LIBOR funds should consider carefully the date on which such USD LIBOR loans should switch to SOFR. If the borrower is ready to switch later in the year, USD LIBOR loans can of course be transitioned to RFRs at the end of 2021 alongside sterling facilities. Liquidity in SOFR interest rate derivatives may be a factor that influences the preferred transition date of USD LIBOR loans with associated hedging. As discussed in section 8.2 below, USD LIBOR hedging that incorporates the ISDA IBOR Fallbacks will not move to SOFR on 1 January 2022 when the first USD LIBOR tenors cease, but will instead reference interpolated rates derived from the remaining maturities through to June 2023.

2.5 What about non-LIBOR related "amend and extend" transactions?

The UK RFRWG's target deadlines for the cessation of sterling LIBOR loans refer to new and refinanced loans[3]. Does this mean that if existing facilities are amended (for example, to extend their maturity), they must be amended to accommodate RFRs at the same time? There is also of course the question of whether the same applies to legacy LIBOR loans in other currencies according to the relevant authorities' target deadlines.

Where no new money is being advanced and there are no changes to the lending group, one might take the view based on the wording of the UK RFRWG's recommendations that it is not necessary to deal with replacing LIBOR at the same time, and that transition can be put off to later in the year. However, the recommendations and guidance are not legislation or regulations capable of rigid interpretation, and the financial sector is under pressure from regulators to get the job done as quickly as possible.

Whether amendments are deemed to trigger a requirement to update the facility for LIBOR transition therefore depends on the approach that the lenders involved have determined is prudent. Many lenders have very large books of LIBOR business, and where documents are being re-negotiated anyway, may be keen to deal with LIBOR transition at the same time, or even have adopted a house policy to that effect.

2.6 What about amending existing LIBOR loans?

Some borrowers will have been contacted by their banks about amending existing LIBOR loan terms already. This process is anticipated to accelerate from now. The UK RFRWG has suggested that, where viable, the transition of legacy sterling LIBOR products to alternative rates is effected during Q2 and Q3 2021 and if not viable, robust fallbacks are adopted where possible. This was strongly reiterated in the FCA and PRA's Dear CEO letter of 26 March:

"*All sterling legacy LIBOR contracts should, wherever possible, have been amended by end Q3 2021 to include at least a contractually robust fall-back that takes effect upon an appropriate event, or, preferably, an agreed conversion to a robust alternative reference rate. Actions with respect to non-sterling exposures should be consistent with the relevant timelines for that currency.*"

The amendment process, in many cases, will involve RFR terms in the LMA RFR Templates being incorporated into existing facilities. The commentary in this Guide is therefore relevant to companies amending legacy loans, as well as those in the market for new money.

When amending a legacy LIBOR loan to incorporate RFR terms, the approach and process should be considered in addition to the applicable RFR terms:

- **RFRs or rate switch mechanism?** Some borrowers may be keen to put a plan in place to transition from LIBOR, but may have good reasons to defer the application of RFRs until later in the year (or beyond, in the case of USD loans). Some companies may simply need a few more months to update treasury systems to manage RFRs. Where loans need to be closely aligned to existing hedging, and the related swap is to transition in accordance with ISDA's IBOR fallbacks which will not apply until the relevant LIBOR rate ceases or loses representativeness (see section 8 below), deferring the application of RFR terms to the loan to align with the fallback triggers in the swap may be the preferred route.

  Such borrowers may prefer to amend their facilities to incorporate a rate switch mechanism that converts the LIBOR facilities to pre-agreed RFR terms automatically on a future agreed date (eg the end of Q3 2021, or upon the cessation or non-representativeness of the relevant LIBOR rates). Rate switch mechanisms have been widely used over the last six months. The LMA RFR Templates include forms of rate switch agreement (see section 7 below) and framework drafting is also included in the Compounded/Term MTR (see section 4 of Part II below).

  The UK RFRWG's recently updated Best Practice Guide for GBP Loans notes: "*Market participants should not expect to rely on rate switch agreements or a pre-agreed process for re-negotiation beyond the end-Q1 milestone for new GPB loans.*" This wording and the reference to new loans suggests that it is possible to do so in the context of legacy LIBOR loans. That legacy loans do

[3] See Priorities and roadmap for transition by end-2021 and Q&A.

not need to be amended to move directly to RFRs before the end of the year is also reflected in the UK RFRWG's transition milestones, which require the transition of legacy contracts where viable, or if not, the adoption of robust fallbacks, during Q2 and Q3 2021. This approach is endorsed by the regulators in the Dear CEO letter of 26 March, in the passage quoted above.

It would seem therefore that there is flexibility to amend legacy LIBOR loans to incorporate rate switch mechanisms rather than moving directly to RFRs in appropriate cases. This is sensible. The absence of this flexibility would give rise to a risk of foot-dragging in response to lenders' amendment requests and a bottleneck of amendment transactions at year end, which would not be in the interests of lenders or borrowers. The flexibility to use a rate switch may be particularly useful, in relation to USD loans where the transition timetable for legacy deals is longer due to the continuing availability of most USD LIBOR tenors through to June 2023 (see section 2.4 above).

- **Process for amendment (syndicated deals)?** Will the agreement simply be amended and restated via an amendment agreement signed by all parties in the normal way, or, for syndicated deals, should the LMA's two-stage approach documented in its Reference Rate Selection Agreement (**RRSA**, still currently in exposure draft form) be adopted? An amendment agreement detailing the amendments required to implement RFR terms may be appropriate for bilateral loans and club deals. For syndicated loans, amendments will require the approval of the whole syndicate or a specified majority, depending on the terms of the loan. Where the required consents may be challenging to achieve (for example, because of the size of the syndicate), the LMA's RRSA may be helpful. The RRSA provides for a two-stage amendment process. All of the parties to the facility (or in the case of the lenders, the requisite majority) agree to the key commercial terms via a "tick-box" checklist agreement that cross refers to the relevant LMA RFR Template. The parties to the agreement go on to delegate authority to the Agent and the borrower to implement the commercial agreement by entering into a formal amendment agreement that makes the necessary changes to the facility terms. The use of the RRSA is likely to be driven by the Agent in most cases. Borrowers should discuss the most appropriate route with their lead banks and advisers.

- **Will the required consents be forthcoming?** Lenders and borrowers will be equally incentivised to transition to RFRs with minimal fuss in many circumstances. However, there will be a sub-category of "tough" legacy syndicated loans that cannot be amended to adopt replacement rates in time. This might be due to lenders failing to respond to consent requests meaning that the requisite majority cannot be obtained. There could also be cases where lenders see an opportunity to withhold consent in exchange for a more favourable outcome or other changes to the agreement. Regulated lenders are disincentivised from exploiting the situation for economic advantage by the risk of sanction from regulators. However, not all investors in syndicated loans are regulated. There have been some reports of investors refusing to give consent to transition in the LIBOR-linked FRN market for these sorts of reasons.

  If there is a risk that the required consents will not be obtained, the borrower will need to consider the consequences in conjunction with its lead banks and advisers. It is possible that some tough legacy loans will fall within the scope of "synthetic LIBOR" (see section 2 above), but the scope and economic implications of the UK legislative solution, at this point, remain unclear. Borrowers who are concerned about a forthcoming consent process, or whose syndicated debt is widely held, are urged to liaise with their lead banks and advisers as soon as possible so they have a full understanding of their options. For example, while we are not aware of any consent requests relating to LIBOR transition amendments that have involved incentive fees, that could be an option that is necessary in some cases.

3. Replacement rates

3.1 Rate options

The FSB recommended that the focus of LIBOR transition efforts should be on replacing LIBOR with the relevant RFR. The first task of all of the national Working Groups was to identify an appropriate RFR. Some of the RFRs chosen by the Working Groups are well-established rates that have been reformed more recently, for example, the sterling RFR, SONIA. Others, such as SOFR (the USD RFR) and €STR (the euro RFR), are new. The RFR for each LIBOR currency is set out in the table on the next page, together with the current IBOR options, details of the national Working Group and links to sources of further information on the composition and operation of the relevant rate.

The RFRs' common characteristic is that they are all backward-looking overnight rates on a pool of virtually risk-free investments. Otherwise, they have differing characteristics that reflect the most appropriate underlying local market. RFRs are also quite different from LIBOR. LIBOR includes a measure of bank credit risk and, as a term rate available over a range of maturities, a term liquidity premium. It is calculated on a consistent basis across all five currencies. None of these elements are present in the RFRs.

The differences between LIBOR and RFRs prompted much concern in the early stages of the LIBOR transition process, especially in the loan market, and there was a strong desire for forward-looking term rates derived from RFRs.

The priority of the Working Groups has, however, been to promote the use of compounded (or averaged) RFRs, to align the cash markets with the derivatives market. SONIA compounded in arrears, for example, has been used in the sterling overnight interest rate swap market for over 20 years, so conventions are well established. The more gradual transition to RFRs in the loan market (compared to other products) reflects the time it has taken to overcome the operational hurdles to using backward-looking rates in the context of a product built around forward-looking LIBOR.

For loans, the replacement rate for LIBOR in most cases will, therefore, be the relevant RFR compounded in arrears. The UK RFRWG's recommendation for sterling loans is that, in the majority of cases, LIBOR should be replaced by SONIA compounded in arrears.

> "Overnight SONIA, compounded in arrears, will and should become the norm in most derivatives, bonds, and bilateral and syndicated loan markets given the benefits of the consistent use of benchmarks across markets and the robust nature of overnight SONIA. The future use of a forward-looking term rate in cash markets should be more limited than the current use of LIBOR. So, where possible, counterparties are encouraged to transition to overnight SONIA compounded in arrears."
>
> REPORT OF THE UK RFRWG USE CASE TASK FORCE

The Working Groups have, however, recognised that compounded in arrears RFRs are not the only alternative to LIBOR. Some products have been highlighted as unsuited to RFRs compounded in arrears, for example smaller business lending, trade finance and Islamic finance. For these products, there is a potential use case for a forward-looking term rate derived from the relevant RFR (see section 3 below). Other alternatives to compounded in arrears RFRs include historic compounded averages, central bank rates and fixed rates. These alternatives, having the advantage of being simpler to understand and administer, may be preferred in the bilateral SME sector of the loan market.

Acknowledging that forward-looking term rates derived from RFRs might be relevant to certain sectors of the loan market, the LMA has produced a briefing note setting out the considerations to be taken into account if such rates are to be adopted, for example, what the appropriate fallbacks for such rates might be. For syndicated loans and larger bilateral loans, however, compounded in arrears RFRs will certainly be the norm. Compounded in arrears RFRs are therefore the only IBOR alternatives included in the LMA RFR Templates. Section 4 below outlines how the compounded in arrears rate is calculated and the conventions applicable to RFRs compounded in arrears in the context of loans.

Risk free rates and working groups

LIBOR Currency	IBOR/ Administrator	RFR	RFR Administrator	Working Group
	LIBOR IBA	Sterling Overnight Index Average (SONIA)	Bank of England	Working Group on Sterling Risk-free Reference Rates
	LIBOR IBA	Secured Overnight Financing Rate (SOFR)	Federal Reserve Bank of New York (NY FED)	Alternative Reference Rates Committee (ARRC)
	LIBOR IBA EURIBOR EMMI	Euro Short-term Rate (€STR)	European Central Bank (ECB)	Working Group on Euro Risk-free Rates
	LIBOR IBA	Swiss Average Rate Overnight (SARON)	SIX Swiss Exchange	National Working Group (NWG) on Swiss Franc Reference Rates
	LIBOR IBA TIBOR Euroyen TIBOR JBATA	Tokyo Overnight Average Rate (TONAR)	Bank of Japan	Cross-industry Committee on Japanese Yen Interest Rate Benchmarks

3.2 EURIBOR

Euro LIBOR is not widely used in the loan market. The exception is in euro swingline facilities, which may use the overnight euro LIBOR rate or EONIA, which is also being discontinued on 3 January 2022. These facilities are being transitioned to €STR.

Treasurers will be aware that the EU authorities decided some time ago to reform, rather than discontinue, EURIBOR. There is currently therefore no need to transition euro facilities from EURIBOR to €STR, although equally, it should be possible to price loans based on compounded in arrears €STR, if preferred.

Whether to transition euro facilities to €STR along the same timeline as transitioning LIBOR loans to RFRs is a decision for the parties to take on a case by case basis. As the loan market becomes more familiar with using RFRs, it may be that the euro market moves to €STR. To date, we have observed limited appetite on the lender and the borrower side for €STR compounded in arrears. Our expectation is that the €STR market will develop over a longer timeframe.

The current focus of the Working Group on Euro Risk-Free Rates (the **Euro Working Group**) is on identifying €STR-based fallbacks for EURIBOR, to cater for a future scenario in which EURIBOR may permanently cease. The publication of recommendations for €STR-based fallbacks for EURIBOR loans are anticipated shortly. Once the final recommendations are available, we expect the LMA RFR Templates that include euro facilities to be updated to incorporate the recommended fallback provisions. Until then, the parties will need to consider the most appropriate fallbacks for EURIBOR.

The LMA RFR Templates make provision for the switch of euro loans from EURIBOR to €STR after the date of the agreement, to cater for a future scenario in which EURIBOR may cease permanently. See further section 4 and section 8 of Part II.

3.3 Term SONIA

As noted above, the UK RFRWG has made clear that it expects SONIA compounded in arrears to become the norm for most of the sterling loan market, with use of a term SONIA reference rate being significantly more limited. In its January 2020 paper "Use Cases of Benchmark Rates: Compounded in Arrears, Term Rate and Further Alternatives", it did, however, acknowledge term SONIA as an appropriate option in the limited instances where operational necessity precludes the use of a compounded in arrears RFR or another alternative rate. Transactions for smaller corporate, wealth and retail clients for whom simplicity and/or payment certainty is a key factor are an example. In addition, there are some products where the use of SONIA compounded in arrears will likely create operational difficulty regardless of the sophistication of the borrower. These include trade and working capital products such as supply chain finance and receivable facilities, export finance and emerging market loans, and Islamic facilities. In such cases, although fixed rates or the Bank of England's Bank Rate may be used, there may be instances where a forward-looking term rate is the most appropriate alternative to LIBOR.

Given there are use cases for term SONIA, albeit limited, three benchmark administrators (Refinitiv, ICE Benchmark Administration and FTSE Russell) were mandated to begin publishing term SONIA reference rates (**TSRR**) in "beta" form in summer 2020, for information and testing purposes. The UK RFRWG does not intend to endorse a particular TSRR. To assist market participants with understanding the differences between the rates, it has, however, produced a summary of the key attributes of the beta versions.

The "beta" status of the TSRRs produced by Refinitiv and ICE Benchmark Administration was removed in January 2021 (and the UK RFRWG's summary of key attributes was updated accordingly)[4]. These rates are now live and available for use. Both administrators are publishing 1-month, 3-month, 6-month

[4] The FTSE Russell rate has been discontinued.

and 12-month tenors and all are based on a "waterfall methodology', although there are methodological differences between them meaning that the final rates are marginally different.

The Fixed Income, Currencies and Commodities Market Standards Board is in the process of developing a proposed market standard for limiting use of the TSRRs. A draft of the standard was published for consultation on 24 March 2021. It is open for comments until 28 May 2021, with the final document expected to be published shortly after. The draft standard emphasises the need for a "robust rationale" for the use of the TSRR in lending products, and the inclusion of "robust fallbacks" within TSRR-referencing products, to apply should the TSRR be discontinued or lose representativeness.

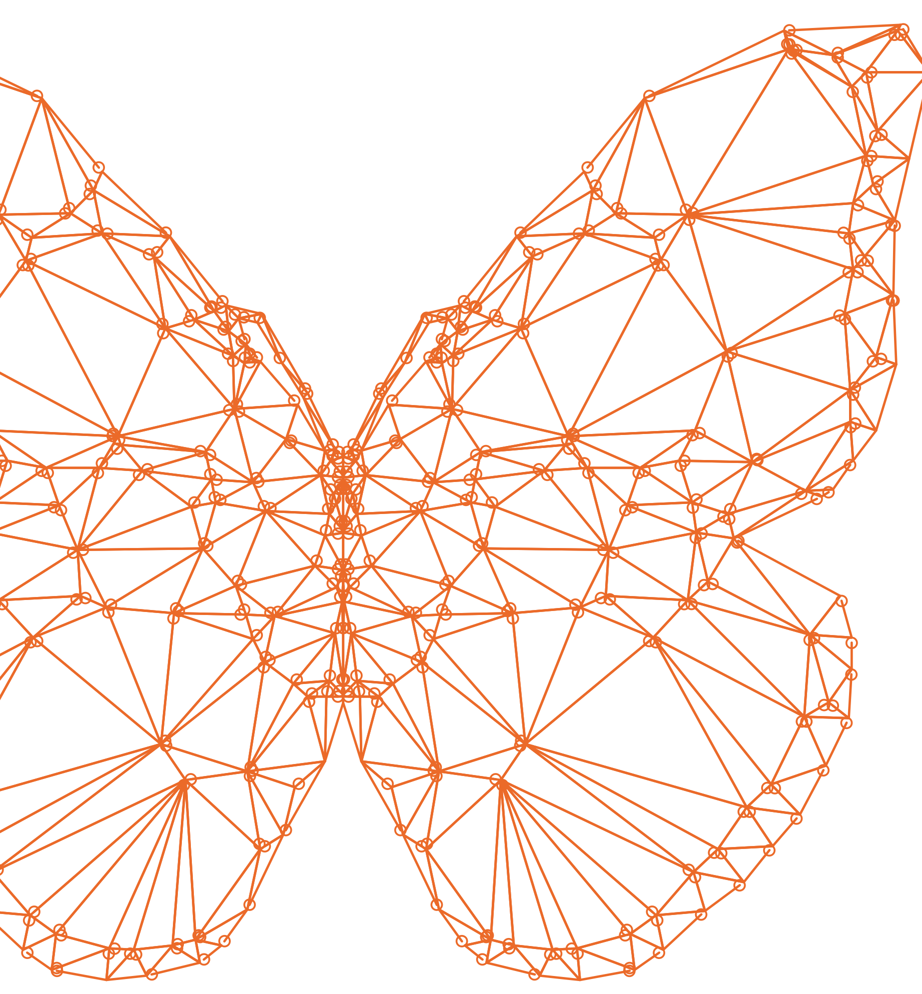
3.4 Term SOFR

The ARRC released a request for proposals seeking a potential administrator to publish a forward-looking term SOFR reference rate in September 2020, but has not yet made a selection and no indicative rate is yet available. The intention was initially to make a term SOFR reference rate available by the end of Q2 2021, provided liquidity in SOFR derivatives was sufficiently developed. The ARRC has since confirmed that it will not be in a position to recommend a term SOFR reference rate by mid-2021 given the current level of liquidity in SOFR derivatives markets, and has further stated that it cannot guarantee that it will be in such a position by the end of the year.

The ARRC has not yet set out its recommended use cases for a term SOFR reference rate either, although it is currently evaluating options. It is notable that the ARRC's recommended SOFR-based fallbacks for USD loans (both the bilateral and syndicated versions) include term SOFR (if available) as the first stage in the fallback waterfall. This contrasts with the LMA/English law position, which is to transition straight to the relevant RFR compounded in arrears (see section 7 below).

The inclusion of term SOFR in the fallbacks waterfall suggests that the ARRC's use cases for term SOFR may be less restrictive than that of the UK RFRWG. If this is the case it will be largely to accommodate the needs of the US domestic market. The ARRC has, however, recently stated that a limited scope of use of a term SOFR reference rate is an important condition to help ensure that such a term rate does not reintroduce the vulnerabilities that first prompted the transition away from LIBOR. It is not therefore, immediately clear how much more permissive use of a term SOFR reference rate will be and in light of the recently announced delay to the availability of a term SOFR rate and the indications of a limited use case, the ARRC is encouraging market participants to transition without reliance on a term rate. While some USD borrowers would ideally wish to have the opportunity to assess any term SOFR rate before moving straight to SOFR compounded in arrears, the ARRC's recent announcements may dampen the willingness of lenders to write new USD LIBOR deals in the meantime (see section 2 above).

The availability of a term SOFR reference rate (whenever this may be) may not, in any event, have much impact on London-originated loans in USD, which may continue to reference SOFR compounded in arrears as has been the case so far.



3.5 Other term RFRs

Of the other LIBOR currencies, term RFRs are anticipated for JPY and most likely euro, but not for CHF:

- **CHF**: The National Working Group on Swiss Franc Reference Rates (the **Swiss Working Group**) has concluded it is not possible to produce a term SARON rate as the underlying data required to produce such a rate is not available.
- **JPY**: QUICK Corp commenced publication of a prototype term TONAR (the Tokyo Term RFR or "TORF") in May 2020. It is anticipated to be published in usable form in mid-2021.
- **Euro**: The Euro Working Group is progressing term €STR rates with a number of administrators (IBA/EMMI, Refinitiv and FTSE Russell) and has consulted on use cases in the context of its consultation on €STR based fallbacks for EURIBOR. Term €STR may progress along a longer timeline than term SONIA, term SOFR and term TONAR for the reasons discussed in section 3.2 above.

Please refer to the national Working Group webpages listed in the table in section 3.1 above for further information on the availability and use cases for term RFRs in these currencies.

4. Conventions for referencing RFRs compounded in arrears in loans

4.1 UK RFRWG recommendations

The options for calculating SONIA compounded in arrears were analysed by the UK RFRWG and market participants in some detail during 2020, culminating in the publication of the UK RFRWG's Recommendations for SONIA Loan Market Conventions (the **Sterling Loan Conventions**) in September 2020. These conventions are further explained in the UK RFRWG's Best Practice Guide for GBP Loans, which was updated in March 2021 and includes links to the key UK RFRWG documentation for loan market participants, including Supporting Slides and worked examples of the application of the conventions.

In summary, the Sterling Loan Conventions recommend the use of a non-cumulative compounded daily SONIA rate for loans, with a five banking day lookback period and no observation shift (although an observation shift is also a valid option). These conventions are reflected in the LMA RFR Templates and are being incorporated into the loan market infrastructure that will facilitate the adoption of RFRs on a market-wide basis.

The remainder of this section 4 outlines the key components of the Sterling Loan Conventions. How those conventions translate into the LMA RFR Templates is discussed in Part II.

It is important to be aware that the Sterling Loan Conventions differ in some respects to the conventions applicable to the use of SONIA compounded in arrears in other products such as bonds and, importantly, derivatives. There are differences between the recommended loan conventions and the conventions applicable under ISDA's IBOR fallbacks documentation. There are also differences between the Sterling Loan Conventions and those conventions recommended by other of the Working Groups for loans. These differences are discussed further in section 4.6 below.

4.2 Compounding calculation

Compounding recognises that the borrower does not pay back interest owed on a daily basis. Compared to simple averaging, it more accurately reflects the time value of money by keeping track of the accumulated interest owed but not yet paid.

There are different approaches that can be taken to the compounding calculation. The additional amount of interest owed each day can be calculated either by applying the daily RFR to the balance of the loan or to the rate itself:

- **Compounding the balance**: The daily RFR is multiplied by the outstanding principal and unpaid accrued interest (collectively, the balance).
- **Compounding the rate**: The rate itself is compounded and multiplied by the outstanding principal.

If the second option is chosen, there are two approaches to compounding the rate:

- **Cumulative compounded rate (CCR)**: The compounded rate is calculated at the end of the interest period and that rate is then applied to the whole period. This method allows interest for the whole period to be calculated using a single compounded rate.
- **Non-cumulative compounded rate (NCCR)**: This rate is derived from the CCR. The NCCR for a given day is the CCR for that day minus the CCR for the previous day. This generates a daily compounded rate which allows the calculation of a daily interest amount. These daily interest amounts are added up to provide a rate over the required period, enabling accurate calculation of accrued interest at any point in time.

The Sterling Loan Conventions recommend the NCCR method for loans because it better supports intra-period events such as prepayments and trading. This is reflected in the compounding formulae that appear in the LMA RFR Templates, see section 3 of Part II. A CCR may be appropriate for certain loans, see further section 3.1 of Part II.

A CCR has been adopted by ISDA for the purposes of IBOR fallbacks in derivatives and is also being used in capital markets products.

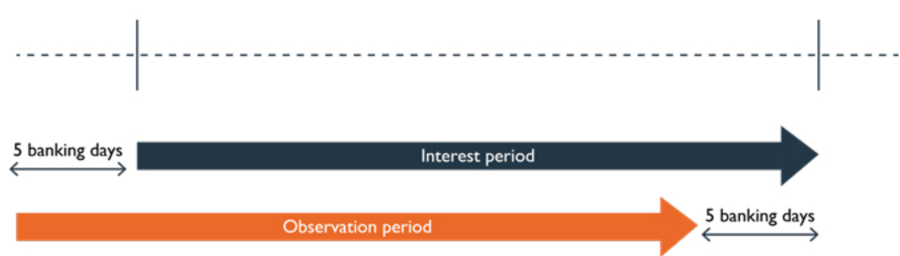
4.3 Lookback period

RFRs are backward-looking overnight rates, so the daily RFR will be available only at the end of the day to which it relates or the beginning of the next day. If the interest payable for a given interest period is calculated based on the RFRs observed each day during the interest period, the total interest payable will only be known with precision at the end of that interest period or just after.

This presents a challenge. The parties to a loan facility will need to determine the amount of interest payable some period in advance of the end of the interest period if they are to mobilise payments within the required settlement time. The solution that has been developed to deal with this is known as the "lookback".

The lookback involves observing the RFRs each day over an "observation period" which starts and ends a certain number of days prior to the start and the end of the interest period. Interest is payable on the basis of the rates compounded over the observation period, meaning interest payable will be determinable before the end of the interest period.

The Sterling Loan Conventions recommend a five banking day lookback period for loans referencing SONIA compounded in arrears, although both the conventions and the LMA RFR Templates recognise that there may be instances where a shorter or longer lookback period is necessary or desirable. See section 3.2 of Part II.



4.4 Observation shift

When compounding a rate over a period, the rate applied on days on which the rate is not published (for example, weekends and bank holidays) will be the rate for the preceding business day. The rate is not compounded on the non-business day. Instead, the RFR for the preceding business day is weighted more than once in the compounding calculation. The RFR for a Friday, for example, when the next business day is the following Monday, will have a weighting of three days in the compounding calculation to account for the fact that it is used for the Friday, Saturday and Sunday.

If the lookback convention is adopted such that interest is calculated over an observation period that is different from the interest period, there is a question as to how the weighting is derived - namely, whether to adopt the "observation shift" convention or not.

The observation shift convention ("**shift**" or "**lookback with observation shift**") weights the rate according to the number of calendar days in the observation period rather than the number of calendar days in the interest period. In other words, the daily rates are rated according to where they fall in the observation period rather than the interest period. The lookback without

observation shift convention (also known as "**observation lag**") weights the rate according to the number of calendar days in the interest period to which the calculation is relevant. The two approaches are best illustrated by example. The UK RFRWG's Supporting Slides containing the detailed loan conventions are helpful here.

The concept of an observation shift is used in the SONIA Compounded Index and the SOFR Compounded Index (discussed in section 5 below) and in RFR-linked derivatives. The Sterling Loan Conventions, on the other hand, recommend the adoption of a five banking day lookback without observation shift as the preferred option for sterling loans. The Sterling Loan Conventions do, however, recognise that a lookback with observation shift can be a viable and robust alternative. The observation shift might be required, for example, to align payments of interest under the loan with related hedging. Accordingly, LMA RFR Templates exist for both options. See further section 3.3 of Part II.

4.5 Interest rate floors

It is fairly common in the loan market for reference rates to be floored at zero. In some sectors of the market, positive floors may apply. The Sterling Loan Conventions recommend that, where a floor applies, it is calculated daily rather than at the end of an interest period. In other words, the applicable interest rate floor is applied to each daily RFR before compounding. This is necessary because loans accrue interest daily.

The Sterling Loan Conventions also recommend, in relation to legacy contracts, that if the aggregate of SONIA and any credit adjustment spread (CAS, see section 6 below) is less than the applicable floor, in the compounding calculation, the SONIA rate (rather than the CAS) is adjusted to ensure that the aggregate of the SONIA rate and the CAS is floored at the applicable rate (eg zero). However, they also recognise that some may prefer to adjust the CAS instead. The LMA RFR Templates take the former approach. See further section 3.6 of Part II.

4.6 Recommendations of other national Working Groups

The ARRC, the Swiss Working Group and the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks have published conventions for referencing SOFR, SARON and TONAR, respectively. Conventions for referencing €STR remain the subject of consultation.

The differences between the headline conventions by currency are set out in the table overleaf. The table also notes, for comparison purposes, the conventions used for compounding RFRs in the derivatives market and reflected in the ISDA IBOR fallbacks (discussed further in section 8 below):

It is worth noting that the ARRC has put more focus on simple interest as an option for the US loan market, whereby the daily SOFR rate is multiplied by the outstanding principal of the loan. This appears to be due to simple interest being operationally easier to implement. As is apparent from the table overleaf, different approaches are also being taken by the national Working Groups in respect of the observation shift convention, although a number recognise that the alternative approach to that recommended remains a viable option in certain circumstances. Recommendations for a lookback with observation shift seem to be based on the fact that this approach is consistent with that being taken by ISDA to fallbacks for derivatives as well as other cash products in the relevant currency. The recommendation of the UK RFRWG for a lookback without observation shift in the loans context was driven in part by a preference for consistency with the US recommendations for loans.

Summary of key conventions

	Source	RFR	Observation shift	Lookback	Floors
Sterling	Sterling Loan Conventions	SONIA compounded in arrears	No (or shift if preferred)	5 banking days	Daily floor
USD	SOFR syndicated loan conventions SOFR bilateral loan conventions	Simple daily SOFR or SOFR compounded in arrears	No	No recommendation	Daily floor
Euro	Consultation on €STR-based fallbacks for EURIBOR loans	€STR compounded in arrears (or simple daily €STR if preferred)	Yes (or no shift if preferred)	No recommendation	Apply floor at end of period (or daily floor if preferred)
CHF	Minutes of 29.09.20 meeting of Swiss Working Group	SARON compounded in arrears	Yes (or no shift if preferred)	5 Business Days	Apply floor at end of period (or daily floor if preferred)
JPY	TONA (Fixing in arrears) conventions for loans	TONAR compounded in arrears (or simple daily TONAR if preferred)	No (or shift if preferred)	5 Business Days	
ISDA IBOR Fallbacks	ISDA IBOR Fallbacks	RFR compounded in arrears	Yes	2 banking days	

5. Data sources

The accessibility of RFRs has been a concern for many treasurers. There is no definitive "screen rate" source of compounded in arrears RFRs. In most RFR-linked products, rather than identifying the rate by reference to a screen page, the rate calculation formulae and conventions will need to be documented and calculations effected based on the agreement.

The production of a screen rate is challenging because the calculation of a RFR compounded in arrears requires a SONIA rate for each day in the period. The Bank of England has developed a SONIA Compounded Index to assist with calculations. This is a series of daily data that represents the returns from a rolling unit of investment earning compounded interest at the SONIA rate each day. The change in the index between any two dates can be used to derive a compounded SONIA rate for a chosen period. The manner in which the SONIA Compounded Index is calculated is described on the Bank of England's SONIA Key Features and Policies webpage.

The New York Fed has similarly developed an Index for Compounded SOFR. The Fed also publishes 30 day, 90 day and 180 day compounded SOFR averages. While there are no current plans to discontinue EURIBOR, the European Central Bank has recently announced that it will start to publish average compounded €STR rates (1 week, 1 month, 3 months, 6 months and 12 months) and a compounded index based on €STR from 15 April 2021. SARON compounded rates for defined periods are also being published by SIX Swiss Exchange.

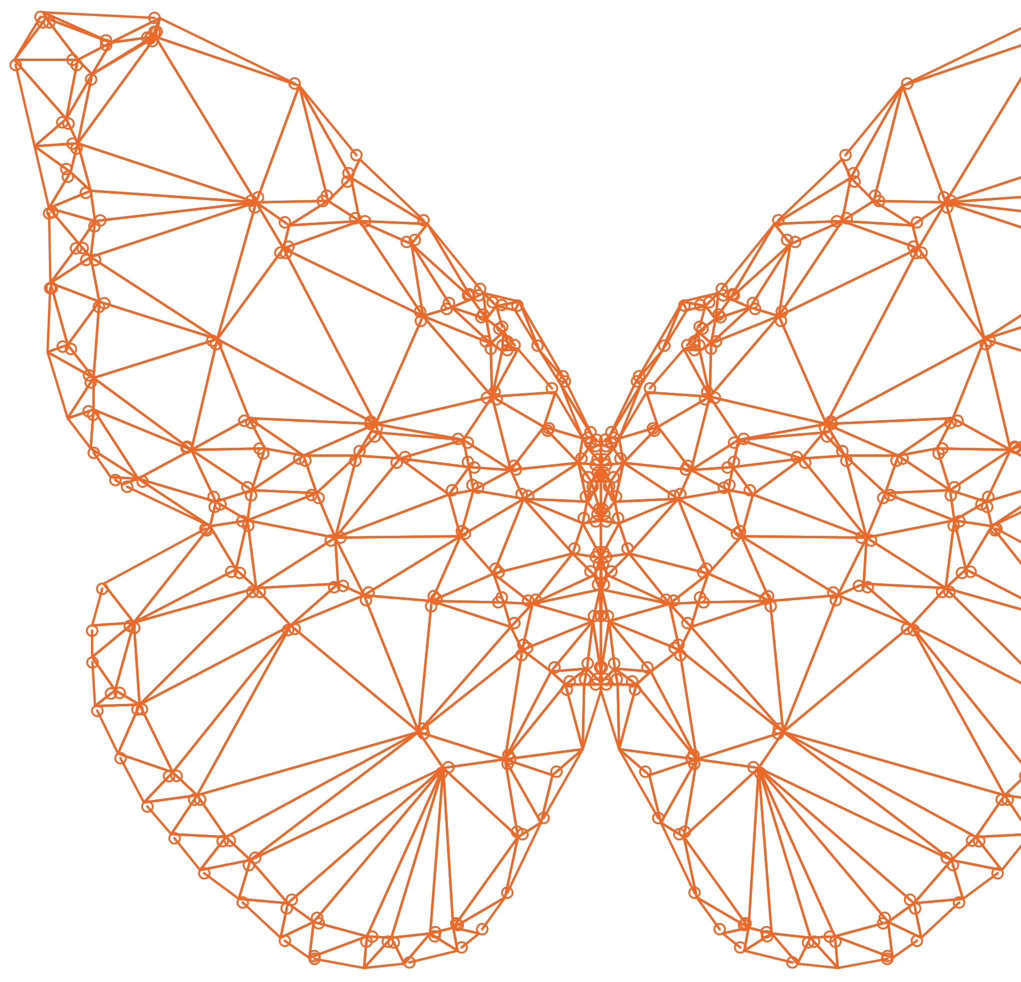
The compounded average rates for defined periods are based on historic data. In other words, the rates, when published, are for a period just ended. They may nonetheless be useful for certain purposes where rates over fixed periods can be used. The ARRC, for example, has recommended the use of the SOFR compounded averages for intra-group loans. The Bank of England consulted in early 2020 on whether to produce SONIA period averages (compounded SONIA rates calculated over a series of set time periods) and, if so, whether there was market consensus on the relevant time periods. The conclusion, at that point, was not to produce averages given a lack of consensus on their utility and choice of methodologies.

The indices are a helpful shortcut, but only if the indices are calculated in a manner that is consistent with the desired conventions for the use of compounded RFRs. The use of an index is not possible, for example, if the NCCR method of compounding is adopted. Further, the SONIA Compounded Index adopts the observation shift convention; if that is not adopted, the index will not be suitable. The use of benchmark floors (discussed further in section 3.6 of Part II), which are common in the loan market, also inhibit the use of the indices if rates are negative as floors are not built into the current calculation methodology. Accordingly, the LMA RFR Templates, which reflect the Sterling Loan Conventions, do not contemplate the use of any compounded RFR index.

Certain private sector providers are developing compounded RFR indices that are compatible with loan market conventions for referencing compounded in arrears RFRs. For example, ICE Benchmark Administration Limited launched, in March 2021, its own set of ICE SONIA Indexes, currently in 'beta' form for information and testing purposes. These indices, ten in total, operate in a similar way to the Bank of England's SONIA Compounded Index, but seek to support the varying needs of the sterling lending market by providing optionality in terms of the use of an observation shift or not, the length of the lookback period (if any) and the incorporation of a zero floor. The fact that the indices address a

range of different conventions, in theory, makes them much better suited to use across the sterling loan market. It remains to be seen, however, once the testing phase is complete (expected to be later in April 2021), whether there is in fact significant take up amongst market participants.

The advantage of the official sector indices and compounded averages, of course, is that data is freely available. Potentially, therefore, these would be good reference points for corporates for certain purposes, for example, intra-group transactions, enabling a reduction in the calculations to be performed. The availability of freely available indices, averages or rate calculators that are compatible with loan market conventions would be a welcome development.



6. Credit adjustment spread (CAS)

6.1 Pricing of RFR loans

The move from LIBOR to RFRs is intended to be economically neutral. As already noted, RFRs are, however, inherently different from LIBOR, in part because RFRs are risk-free or nearly risk-free whereas LIBOR includes a credit risk premium. This means that there is an economic difference between the two that needs to be accounted for.

There are two ways of incorporating this economic difference into the pricing of a loan:

- Increase the Margin, so that the loan is priced at the compounded RFR + increased Margin; or
- Maintain the LIBOR Margin and add a separate credit adjustment spread (**CAS**) to the interest calculation so that the loan is priced at the compounded RFR + CAS + Margin.

Which option to use is, at this point, largely a presentational issue. During the current transitional period, many RFR-linked facilities are adopting a separate CAS rather than incorporating the CAS amount into the Margin. This is also the approach being used in legacy LIBOR deals as they are transitioned to RFRs. This is, at least in part, because this approach enables lenders to clearly demonstrate to regulators how the costs of the transaction have been calculated and that they are treating customers fairly. The FCA has emphasised that LIBOR transition should not be used to move customers to replacement rates that are expected to be higher than what LIBOR would have been. As market practice develops in relation to loans referencing RFRs, building the economic difference between LIBOR and the relevant RFR into the Margin is expected to become the more common approach.

Where there is no separate CAS, consideration will need to be given to the impact of the increased Margin on other provisions of the facility agreement such as commitment fees and any margin ratchets. See further section 3.7 of Part II.

6.2 How is the CAS to be calculated?

The UK RFRWG has recommended the use of a CAS based on the historic median between LIBOR and the relevant RFR over a five-year lookback period from an agreed date (the **5YHLB**) for legacy cash products in conjunction with fallbacks ie. to apply in conjunction with SONIA compounded in arrears on the cessation/pre-cessation of sterling LIBOR rates. This recommendation was driven by a preference for consistency across products. The 5YHLB has also been selected by ISDA for the purposes of transitioning LIBOR derivatives to RFRs on cessation/pre-cessation (see section 6.3 below).

For new loans or loans that are being actively transitioned to SONIA ie. transitioned in advance of cessation/pre-cessation, two methods for calculating the CAS have emerged: the 5YHLB and the "**forward approach**". The forward approach is based on the forward-looking basis swap market. This involves using forward-looking basis swaps to calculate the implied future spread between the relevant RFR and LIBOR. It is calculated as the linear interpolation between differing tenors of LIBOR swaps and RFR swaps. The tenor of the basis used is matched to the weighted average life of the loan.

The differences between the two approaches are explored in the UK RFRWG's December 2020 paper Credit adjustment spread methods for active transition of GBP LIBOR referencing loans, which outlines the considerations to be taken into account and includes a number of worked examples.

The LMA RFR Templates do not specify how any separate CAS, if included, should be calculated, leaving the parties to draft for their preference.
See further section 3.7 of Part II.

6.3 Screen rate CAS

ISDA has appointed Bloomberg Index Services Limited (**BISL**) to publish the fallback rates and CAS for use in derivatives on the cessation/pre-cessation of LIBOR. Bloomberg began to publish the adjusted RFR (compounded in arrears), the CAS (based on the 5YHLB) and the "all in" fallback rate (being the adjusted RFR + CAS) for all LIBOR currencies and tenors, on an indicative basis, in July 2020. On 5 March 2021, when the FCA announced the dates on which LIBOR rates will cease or lose representativeness, the BISL CAS ceased to float and was fixed for all LIBOR currency-tenor pairs. The BISL CAS rates, fixed as of 5 March, are set out in Bloomberg's technical announcement.

While the BISL rates, including the BISL CAS, are being made available for the purposes of ISDA's IBOR fallbacks (see section 8 below), the UK RFRWG's recommendation that the 5YHLB approach should be used to set the CAS in legacy cash products raises the question of whether the relevant BISL screen rates can be cross-referenced in loans. In January 2021, the UK RFRWG wrote to Bloomberg seeking to clarify the terms of access and use by cash market participants to the BISL all-in fallback rate and the fixed BISL CAS. Bloomberg confirmed in its response that the BISL rates are available for use in contractual fallbacks and/or active conversion in the sterling cash markets, and has provided further clarity on how users can access the data. Those who are not Bloomberg Terminal or Enterprise Data subscribers may obtain the rate data from other authorised re-distributors or via Bloomberg's website on a delayed basis.

Accordingly, the BISL CAS may be cross-referred to in loans as the applicable CAS on pre-cessation/cessation (or indeed in loans being actively transitioned), if it is agreed to adopt the 5YHLB. This is useful given the UK RFRWG has not announced any plans to publish, or to appoint a third party to publish, a recommended 5YHLB spread for use in legacy sterling LIBOR products on the cessation or pre-cessation of sterling LIBOR.

6.4 The US approach

In our experience, the calculation of the CAS applicable to actively transitioned loans in the London market is being approached as described above, regardless of currency. While predominantly applicable to the US domestic market, treasurers should be aware of how the ARRC is approaching this issue which, in some respects, is slightly different.

In April 2020, the ARRC published its recommendations for the CAS methodology for cash products, applicable on cessation/pre-cessation of the relevant USD LIBOR rate. For USD LIBOR business (as opposed to consumer) loans, the recommended CAS methodology is the ISDA 5YHLB formulation, so is the same in substance as the recommendation of the UK RFRWG. In June 2020, following a supplemental consultation, the ARRC published further details regarding its recommendation of spread adjustments for cash products referencing USD LIBOR - firstly, that the ARRC's recommended spread adjustments for cash products (other than consumer products) would match the value of ISDA's spread adjustments to USD LIBOR (rather than using the same methodology), and secondly, that for all cash products, in the event that a pre-cessation event is operative, the ARRC recommended spread adjustments would be determined at the same time as ISDA's spread adjustments, namely at the time of any announcement that LIBOR will or has ceased or will or has become no longer representative.

The BISL CAS was fixed for all LIBOR currencies and tenors on 5 March 2021 following the FCA's cessation/pre-cessation announcement (see section 3 above). In line with its June 2020 recommendations, the ARRC's recommended CAS for USD cash products has also now been fixed at the same rates.

In March 2021, the ARRC announced that Refinitiv had been selected to publish the ARRC's recommended (and now fixed) spread adjustments, as well as spread-adjusted rates, for use in cash products that contain the ARRC's hardwired fallbacks. These rates are to be made available on a daily basis to the general public without cost. For USD legacy loans, there will therefore be a screen rate CAS available, based on the 5YHLB.

7. The LMA RFR Templates

7.1 The LMA's LIBOR transition resources

To support the transition of the syndicated loan market from LIBOR to compounded in arrears RFRs, the LMA has produced a substantial body of facility templates, supplementary drafting and guidance materials, as well as a series of educational videos. While the LMA's documentation library is accessible to LMA members only, many of the webinar and educational materials are open to all on the LMA's LIBOR transition microsite.

As noted in the introduction, the commentary in Part II of this Guide has been prepared on the assumption that most corporates reading this Guide will not be LMA members and so will not have access to the LMA documentation library. Treasurers may, however, find it helpful to review this Guide alongside a copy of the relevant terms, to properly familiarise themselves with the LMA RFR Templates. The LMA's RFR documentation can be provided to non-members (for example, by legal advisers or relationship banks) in the course of a transaction. Some borrowers have joined the LMA, providing them with direct access to LMA documentation and guidance on LIBOR transition. Further information on LMA membership is available on the LMA website.

7.2 Recommended forms of facility agreement for RFR-linked loans

The LMA RFR Templates published on 30 March 2021 comprise the following:

- **Single currency term and revolving facilities agreement referencing either SONIA or SOFR (the Single Currency MTR)**. A single currency facility referencing SONIA or SOFR compounded in arrears.
- **Multi-currency term and revolving facilities agreement incorporating rate switch provisions (the Rate Switch MTR)**. A facility that can be drawn in sterling, USD, CHF and/or euro plus optional currencies. Sterling, USD and CHF drawings reference LIBOR. Euro drawings reference EURIBOR. The agreement makes provision for all drawings to switch to compounded in arrears RFRs on a pre-agreed date or on the occurrence of specified trigger events.
- **Multi-currency term and revolving facilities agreement referencing compounded/term rates (the Compounded/Term MTR)**. A facility that can be drawn in sterling, USD, CHF and/or euro plus optional currencies. Sterling, USD and CHF drawings reference compounded in arrears RFRs. Euro drawings reference EURIBOR. The agreement makes provision for term rate drawings (eg in euro) to switch to compounded in arrears RFRs on a pre-agreed date or on the occurrence of specified trigger events.

There are six LMA RFR Templates in total as there are two versions of each of the above templates. The first uses a compounding formula that includes a lookback without observation shift, the approach recommended in the Sterling Loan Conventions. The other uses a compounding formula that includes a lookback with observation shift. The two versions of each template are identical save for the mathematical compounding formulae in the last two schedules, which differ slightly to accommodate the approach taken to the observation shift convention. See section 4.4 above in relation to the observation shift convention.

The LMA has also produced commentaries and termsheets relating to the LMA RFR Templates.

7.3 Next steps

The only document that forms part of the LMA's drafting for RFR-linked facilities that still remains in Exposure Draft form is the RRSA (see section 2.6 above) for legacy LIBOR transactions.

The LMA's broader documentation library will be updated to reflect the RFR terms in the LMA RFR Templates in due course. This includes its suite of documentation for investment grade lending, real estate lending, leveraged lending and so on. This is a significant undertaking which is anticipated to be rolled out in stages. In the meantime, market participants will need to use the relevant LIBOR-referencing template in conjunction with the RFR terms extracted from the LMA RFR Templates. The LMA has produced some guidance notes outlining the considerations to be taken into account that will be helpful to members in the meantime.

8. Hedging considerations

8.1 Active transition or transition by way of fallback

While detailed guidance on derivatives is outside the scope of this Guide, many treasurers thinking about new RFR-linked loans or the amendment of legacy LIBOR loans will also need to think about the transition of related LIBOR hedging. The key decision is whether LIBOR hedging should transition to RFRs by incorporating fallbacks to RFRs - or whether hedging arrangements should transition to RFRs in advance of the cessation/pre-cessation of relevant LIBOR rates. If it is determined that hedging arrangements should be actively transitioned to RFRs alongside the loan, conversations with hedging providers should be initiated at an early stage, with a view to assessing alignment options and pricing. Liquidity in SONIA derivatives is relatively deep; in other currencies, notably SOFR, it is still developing.

Transition to RFRs by way of fallback will in most cases be achieved using ISDA's IBOR fallbacks documentation. The key features of ISDA's IBOR fallbacks are outlined in section 8.2 below, but the key point to note is that the standard position is that LIBOR derivatives will continue to reference LIBOR until the relevant LIBOR currency/tenor pair either ceases or loses representativeness (pre-cessation). The active transition of LIBOR derivatives to RFRs prior to cessation/pre-cessation is achieved by entering into new contracts linked to a non-LIBOR rate. It is also possible, although slightly more complex, to amend/replace existing LIBOR linked swaps such that a non-LIBOR rate is referenced from the point of amendment/replacement.

Whether it is imperative to transition LIBOR hedging arrangements at the same time as the corporate's LIBOR loans switch to RFRs will depend on how closely the hedging and the hedged item need to be aligned. A need for alignment in terms of timing may be driven by contractual hedging requirements set by lenders, hedge accounting considerations or perceptions of basis risk if the loan is actively transitioned and derivatives are instead transitioned in due course according to ISDA's IBOR fallbacks (discussed at section 8.2 below).

The implications of any differences between the compounded RFR conventions used in the loan and in related derivatives also requires attention. In summary, the conventions applicable to RFR-linked derivatives have been broadly, but not entirely, consistent with the conventions being adopted in the loan markets. For example, SONIA derivatives currently use the observation shift and a two banking day lookback, as noted in the table in section 3 above, whereas the Sterling Loan Conventions recommend a five banking day lookback without observation shift for sterling loans. The differences may not necessarily lead to the conclusion that the ISDA IBOR fallbacks (for example) are unsuitable for derivatives hedging loans. The scope of any basis risk arising out of the cash product fallbacks and the ISDA fallbacks not being exactly matched (either in terms of applicable RFRs or in terms of the timing of application) – and whether that basis risk is sufficiently material to warrant deviation from the ISDA Supplement/ISDA Protocol terms - is a point to be explored with counterparties and debt advisers.

It is worth noting that ISDA is working on new "rate options" for daily RFRs (new overnight Floating Rate Options) together with new modular provisions providing a menu of approaches to average and compounded RFRs, including the length of the lookback and the application of daily caps and floors. These new provisions include options designed to be compatible with the LMA RFR Terms and will provide a standardised approach for transactions where close alignment between the terms of the derivative and the hedged item is desirable. The new ISDA provisions are in near final form at the time of writing. They will be published as a Supplement to the 2006 ISDA Definitions and will also be included in the upcoming 2021 ISDA Definitions (due to be published mid-May 2021 for implementation by the end of Q3).

8.2 The ISDA IBOR Fallbacks

ISDA's IBOR Fallbacks Supplement (the **ISDA Supplement**) and Protocol (the **ISDA Protocol**) were published in October 2020 and became effective on 25 January 2021. The ISDA Supplement and the ISDA Protocol (together the **ISDA IBOR Fallbacks**) are primarily designed to facilitate the transition of derivatives from LIBOR by substituting applicable LIBOR rates with new non-LIBOR fallbacks.

The fallback rates that replace LIBOR under the ISDA Supplement and the ISDA Protocol comprise the relevant RFR compounded in arrears, plus a CAS calculated based on the 5YHLB basis. As discussed in section 6.3 above, the compounded RFRs, CAS and all-in fallback rates are being published by BISL.

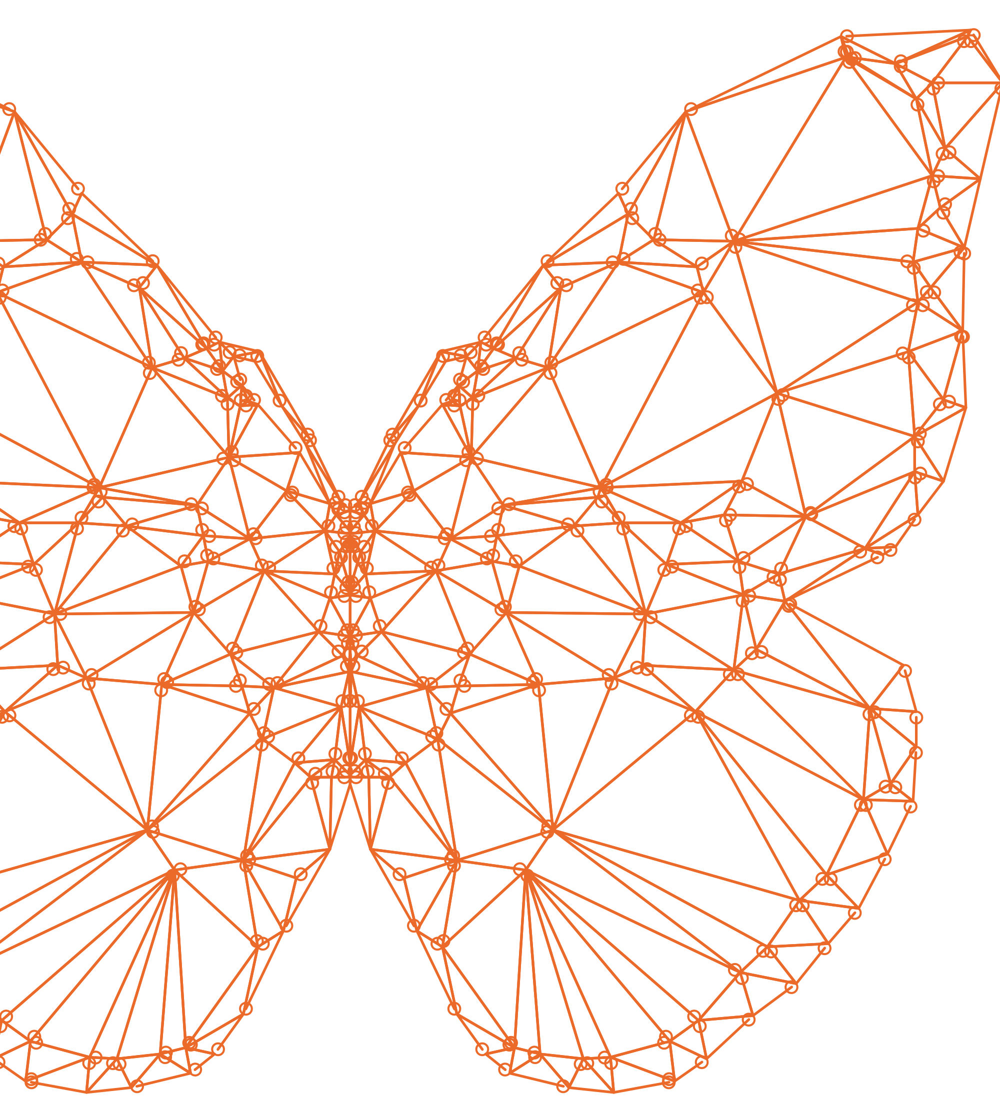
Both the ISDA Supplement and the ISDA Protocol replace the relevant LIBOR with these fallbacks built from RFRs on the permanent cessation of the relevant LIBOR. The non-LIBOR fallbacks may also be applied if the relevant LIBOR ceases to be representative of the underlying market it is intended to measure (the so-called "pre-cessation trigger", and the subject of the FCA announcement on 5 March 2021, see section 2 above). Note that if only certain LIBOR rates are discontinued for a particular currency, the fallbacks will not be triggered and the continuing LIBOR rates will be interpolated. This is important to bear in mind in the context of USD LIBOR facilities (see section 2.4 above).

The ISDA Supplement and the ISDA Protocol contain the same fallbacks. They are, in essence, two methods of achieving the same outcome. The difference is in their scope ie. the trades which they are designed to apply to.

The ISDA Protocol is aimed at legacy LIBOR transactions ie. pre-existing LIBOR transactions entered into prior to 25 January 2021 (although there are some limited circumstances in which it can apply to new transactions). When two parties have adhered to the ISDA Protocol, all IBOR-referencing transactions existing between them are automatically amended to incorporate the non-LIBOR fallbacks. The ISDA Protocol applies not only to transactions governed by the 2006 ISDA Definitions but also the 2000 ISDA Definitions, amongst others. The ISDA Protocol can even apply to certain non-ISDA documents.

The effective date of 25 January 2021 is simply the date on which the amendments effected by the ISDA Protocol will take effect in transactions between parties that have chosen to adhere to it. 25 January is not a cut-off date for adherence. The terms of the ISDA Protocol will become effective to amend existing trades at the point both adherents have adhered to it, even if that happens after 25 January. ISDA has indicated that it will give notice if the ISDA Protocol becomes subject to a cut-off date.

The ISDA Supplement, on the other hand, is aimed at LIBOR transactions entered into from 25 January 2021 (the effective date of the ISDA Supplement). The ISDA Supplement amends the 2006 ISDA Definitions to incorporate the new non-LIBOR fallbacks. This means that any derivatives contracts entered into after 25 January 2021 which, according to their terms, incorporate the 2006 ISDA Definitions, will incorporate the non-LIBOR fallbacks without further action. The ISDA Supplement will not apply to derivatives that do not incorporate the 2006 ISDA Definitions, although it is relatively unusual for that to be the case in the context of corporate interest rate hedging.



9. Beyond LIBOR

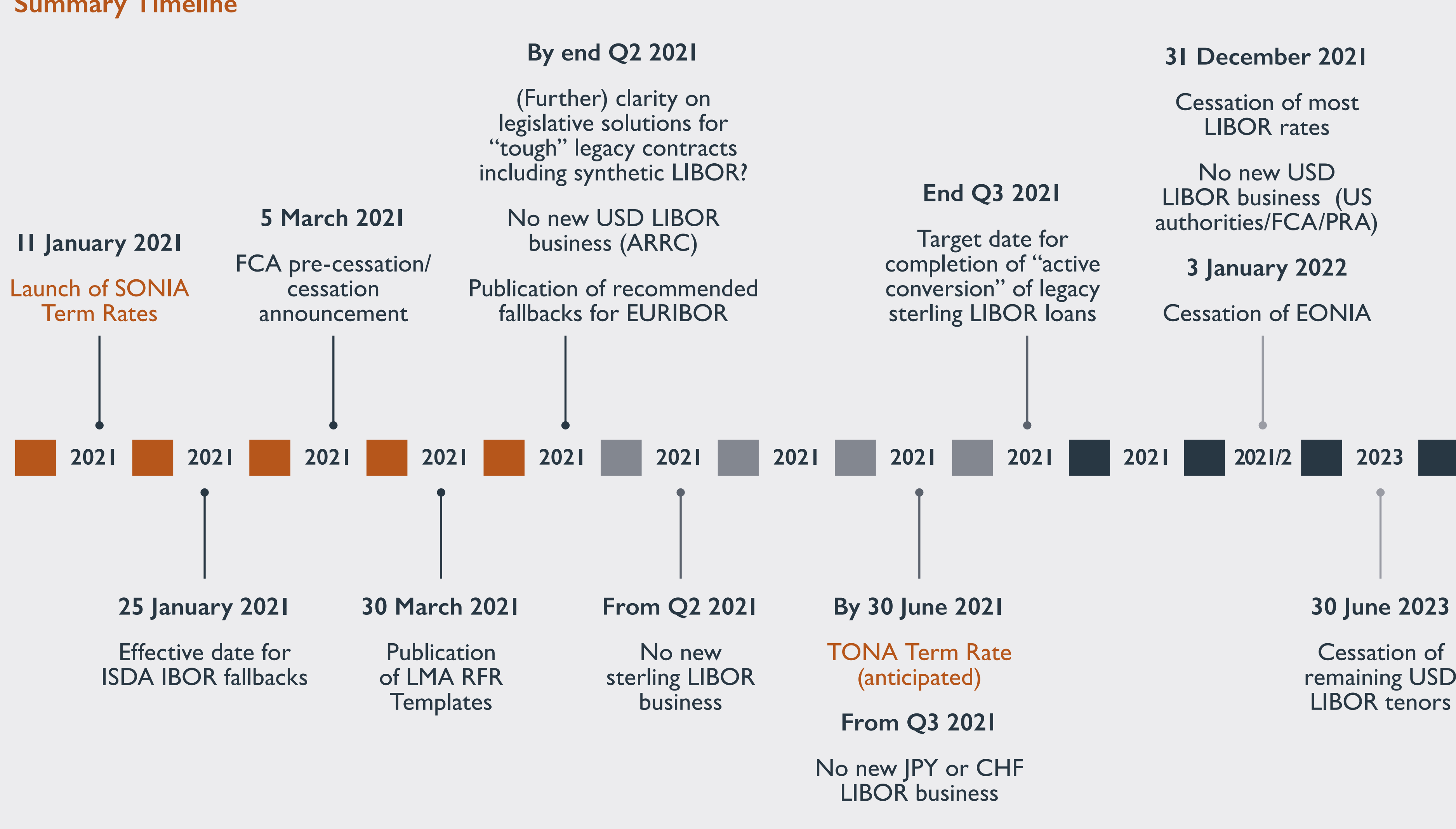
The FSB's recommendations for benchmark rate reform in 2014 extended beyond LIBOR to all major interest rate benchmarks. Jurisdictions beyond the five LIBOR currency jurisdictions are therefore engaged in their own benchmark reform exercises to implement the FSB recommendations.

While the benchmark reform project in each jurisdiction has the same ultimate aim of strengthening existing benchmarks and promoting the development and adoption of RFRs where appropriate, the precise approach being taken differs quite significantly between jurisdictions, as do the timetables for reform. There are jurisdictions for example, such as Canada, which are adopting a multiple rate approach, promoting a new or reformed RFR alongside maintaining and strengthening an existing IBOR. Others, where the markets that underpin the relevant IBOR have become too thin to support a robust IBOR, are adopting an approach akin to that being taken to LIBOR, replacing the existing IBOR with a new or existing RFR.

The FSB's 2020 progress report on reforming major interest rate benchmarks provides a helpful summary of the status of benchmark reform in a number of non-LIBOR currency jurisdictions and may be of interest to those treasurers with borrowings in non-LIBOR currencies. Users of non-LIBOR rates should refer to regulatory and working group resources in the relevant jurisdiction for fuller information on rate options for specific currencies.

While the LMA RFR Templates do not specifically cater for benchmarks beyond the RFRs replacing LIBOR and EURIBOR, they do provide a framework which can be adapted for the specific currency and benchmark in question, and therefore remain a useful starting point.

Summary Timeline



PART II – COMMENTARY ON THE RFR TERMS IN THE COMPOUNDED/TERM MTR

1. Introduction

The Compounded/Term MTR is based on the LMA recommended form of multi-currency term and revolving facilities agreement (**IBOR MTR**). It makes provision for facilities that can be drawn in sterling, USD, euro and/or CHF, alongside a framework for drawings in optional currencies.

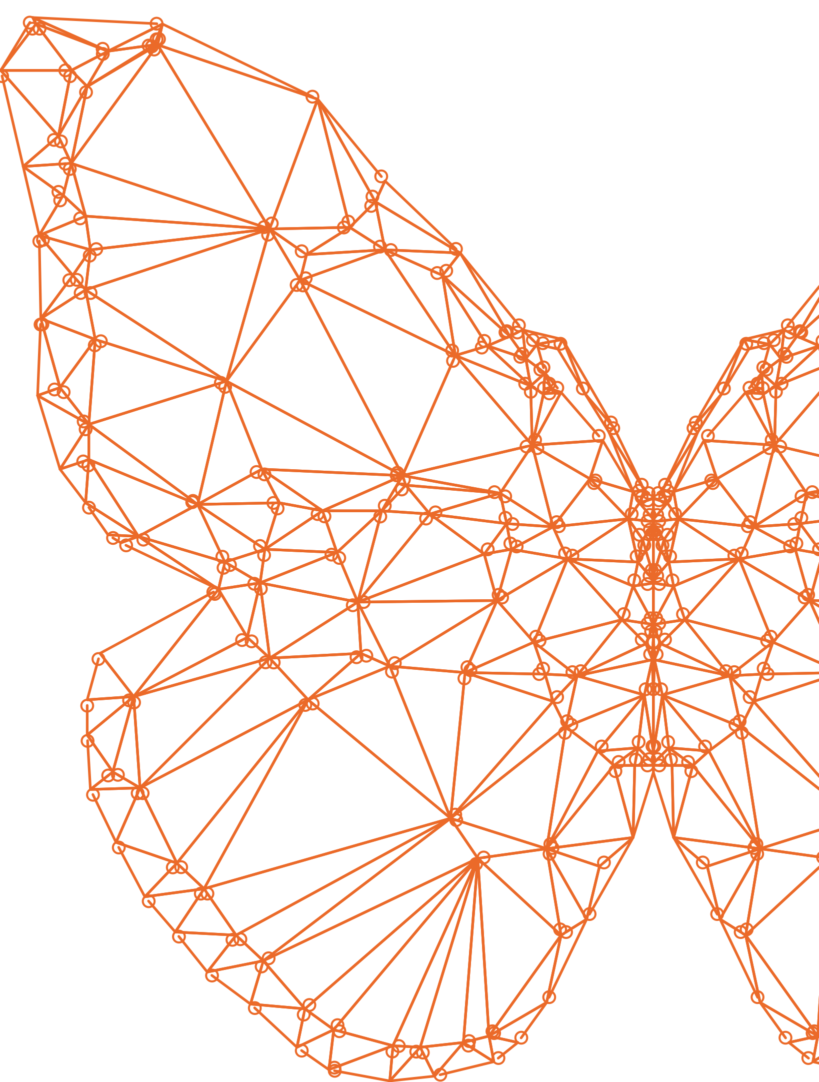
The key difference between the Compounded/Term MTR and the pre-existing IBOR MTR is that the former includes a framework for the use of forward-looking IBORs for certain currencies (**Term Rate Currencies**) and RFRs compounded in arrears for others (**Compounded Rate Currencies**). Term Rate Currencies can be designated as "**Rate Switch Currencies**", which means that they will become Compounded Rate Currencies on pre-agreed terms in accordance with the conditions in the agreement.

The Compounded Rate Currencies are sterling, USD and CHF. "**Compounded Rate Loans**" in these currencies reference SONIA, SOFR and SARON respectively, compounded in arrears.

The only Term Rate Currency for which full provision is made is euro. Loans in euro (being "**Term Rate Loans**") reference EURIBOR. This reflects that, as noted in section 3.2 of Part I, most borrowers are preferring to continue to use EURIBOR for the time being rather than switching to €STR for euro loans. If euro is designated as a Rate Switch Currency, the agreement provides the mechanics to effect a switch from EURIBOR to €STR compounded in arrears after the date of the agreement.

Certain terminology applicable to Term Rate Loans has been adapted to reflect the inclusion of Compounded Rate Currencies, but the interest rate and related provisions applicable to Term Rate Loans are in substance the same in the Compounded/Term MTR as in the IBOR MTR.

This Part II contains a commentary on the key provisions of the Compounded/Term MTR that differ from the IBOR MTR. These comprise primarily the provisions that relate to Compounded Rate Loans. A brief description of the operation of each key provision is included to assist treasurers who may be using this commentary for the purposes of reviewing draft loan documentation without the benefit of access to the Compounded/Term MTR template.



2. Interest provisions - overview

2.1 Calculation of interest

Clause 9 (Interest) makes separate provision for the calculation of interest on Term Rate Loans and on Compounded Rate Loans:

- The rate of interest on a Term Rate Loan for an Interest Period is the percentage per annum that is the sum of the "**Term Reference Rate**" and the Margin. The "Term Reference Rate" is defined as the Primary Term Rate (eg for euro, EURIBOR) or if there is no Primary Term Rate, the specified fallbacks (see section 5 below).
- The rate of interest on a Compounded Rate Loan for any day during an Interest Period is the percentage per annum that is the sum of the "Compounded Reference Rate" and the Margin. The "Compounded Reference Rate" (in summary) is the sum of the **"Daily Non-Cumulative Compounded RFR Rate**" for that day and the CAS, if applicable.

The key point of difference is that the calculation of interest on Term Rate Loans (because they reference a forward-looking term rate) is over the Interest Period. The calculation of interest on Compounded Rate Loans is daily, on each day during an Interest Period. This is a function of the compounding methodology recommended in the Sterling Loan Conventions and reflected in the LMA RFR Templates. See section 3 below.

2.2 Reference Rate Terms

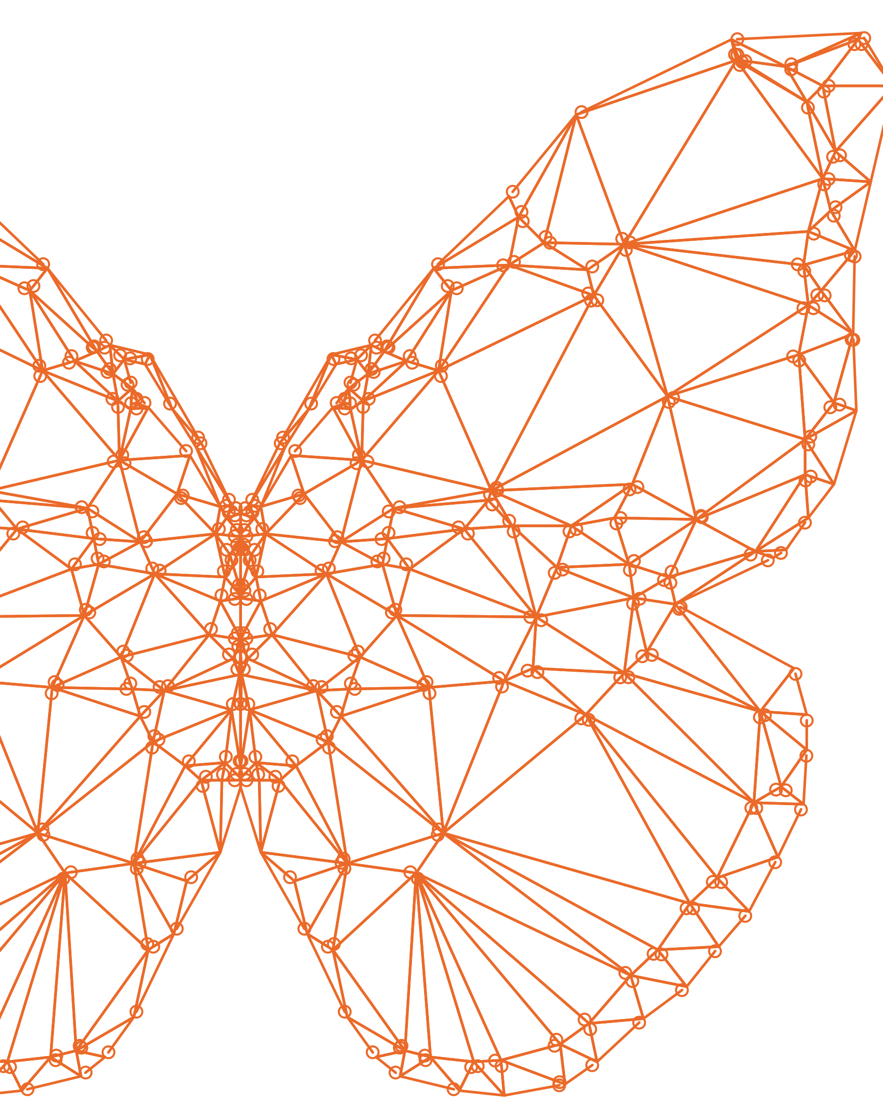
The components of the applicable Term Reference Rate or Compounded Reference Rate are specified by currency in Schedule 13 (Reference Rate Terms). The approach of providing separate terms for each currency adds length to the agreement, but enables the calculations applicable to different currencies to be easily ascertained and allows the straightforward accommodation of discrepancies between currencies.

The agreement acknowledges that the parties may need to agree changes to the Reference Rate Terms from time to time (for example, if market practice evolves). A "Reference Rate Supplement" is a document agreed between the Borrower and the Agent (acting on the instructions of the specified majority of Lenders) that specifies whether the currency is a Compounded Rate Currency or a Term Rate Currency and the applicable reference rate terms for that currency (i.e. equivalent terms to those set out in Schedule 13 for sterling, USD, euro and CHF). Optional provision is made for the Agent to consent separately in its capacity as such (given its role in administering Reference Rate Terms. A Reference Rate Supplement (pursuant to Clause 1.2(g)) overrides any pre-existing Reference Rate Terms relating to the relevant currency.

If the facility is to be available from the outset in currencies other than sterling, USD, euro and CHF, the parties will need to agree appropriate Reference Rate Terms for that currency and add them to Schedule 13 (Reference Rate Terms). For Optional Currencies which are not pre-approved, the parties will need to agree whether the currency is to be a Compounded Rate Currency or a Term Rate Currency (and if so, whether the currency is a Rate Switch Currency) and an appropriate "Reference Rate Supplement", at such point as drawings in the Optional Currency are needed. Clause 4.3 (Conditions Relating to Optional Currencies) provides a new condition precedent to the drawing of an Optional Currency, that there are Reference Rate Terms for that currency.

2.3 Alterations to Reference Rate Terms

The volume of legacy LIBOR transactions that require amendment to accommodate the move to RFRs suggests it is prudent to include provisions in all loan documentation that facilitate the future replacement or adjustment of reference rate terms as efficiently as possible. The Compounded/Term MTR does this quite comprehensively.



Optional clause 9A (Rate Switch) enables the parties to switch Term Rate Currencies (or selected Term Rate Currencies) to Compounded Rate Currencies automatically and for the application, when the switch is triggered of new and pre-agreed Reference Rate Terms.

Reference Rate Terms for euro, for example, are provided for both euro loans referencing EURIBOR and euro loans referencing €STR. The latter will be needed if the parties include the option to switch euro from a Term Rate Currency to a Compounded Rate Currency at a later date. If the agreement has been adapted to include Term Rate Currencies other than euro, and it is agreed to switch to RFRs at a later date, the euro Reference Rate Terms schedule provides a model into which the terms appropriate for that currency can be incorporated. See further section 4 below.

The Reference Rate Supplement route outlined at section 2.3 above enables adjustments to be made to existing Reference Rate Terms. A similar route is available if changes to the compounding methodologies applicable to Compounded Rate Loans are necessary. A "Compounding Methodology Supplement" is a document agreed between the Borrower and the Agent (acting on the instructions of the specified majority of Lenders), which (pursuant to Clause 1.2(g)) overrides any pre-existing terms relating to the relevant Compounded Rate Currency (eg as set out in Schedules 14 and 15, see section 3 below). These provisions will be useful, for example, should conventions or market practice evolve on the more detailed aspects of using RFRs.

Clause 35.4 (Changes to Reference Rates) provides a mechanism for amending the agreement to accommodate changes to reference rates more generally, subject to the consent of the specified majority of Lenders and the Borrower. While this route could, in theory, also be used to adjust Reference Rate Terms, it is aimed at situations where (as in the case of LIBOR currently), a reference rate needs to be replaced after the date of the agreement, necessitating new Reference Rate Terms and most likely broader changes to related provisions. See further section 8 below.

3. Interest on Compounded Rate Loans

3.1 NCCR vs CCR

The Sterling Loan Conventions recommend the use of a non-cumulative compounded rate (**NCCR**) in loans (see section 4 of Part I). The Compounded/Term MTR therefore uses an NCCR as the basis of the calculation of interest on Compounded Rate Loans. The NCCR formula reflects the non-cumulative compounding methodology recommended by the UK RFRWG in the Sterling Loan Conventions and has been crafted to align with the principle in the Sterling Loan Conventions that the NCCR applied daily over a period must yield the same result as the application of the cumulative compounded rate (**CCR**) over the same period.

The starting point is the definition of "Compounded Reference Rate", which is the rate at which interest is payable on Compounded Rate Loans. The Compounded Reference Rate (in summary) is the sum of the "Daily Non-Cumulative Compounded RFR Rate" (ie. the NCCR) for that day and the CAS, if applicable.

The Daily Non-Cumulative Compounded RFR Rate is calculated for each RFR Banking Day by reference to a mathematical formula specified in Schedule 14 (Daily Non-Cumulative Compounded RFR Rate). The Daily Non-Cumulative Compounded RFR Rate, in essence, is the CCR for that day minus the CCR for the previous day. It is therefore necessary to calculate a CCR in order to arrive at the Daily Non-Cumulative Compounded RFR Rate. The CCR calculation required for the purposes of the Daily Non-Cumulative Compounded RFR Rate is incorporated into the formula in Schedule 14.

A standalone CCR formula is also specified in Schedule 15 (Cumulative Compounded RFR Rate). The Cumulative Compounded RFR Rate in Schedule 15 is used for the purposes of the calculating the rate over a period that is used to determine whether the market disruption provisions in the agreement are triggered (see section 6 below). If it is agreed that market disruption provisions will not apply to Compounded Rate Loans, Schedule 15 can be omitted.

For reference, Schedule 14 (Daily Non-Cumulative Compounded RFR Rate) and Schedule 15 (Cumulative Compounded RFR Rate) of the Compounded/Term MTR (lookback without observation shift) are reproduced with the permission of the LMA for reference in the Appendix to this Part II.

As the Daily Non-Cumulative Compounded RFR Rate (the NCCR) is derived from a CCR, it adds a further level of complexity to rate determinations. As noted in section 3 of Part I, the NCCR has been recommended for loans because it better supports intra-period events such as prepayments and trading. The NCCR formula generates a daily compounded rate which allows the calculation of a daily interest amount, enabling accurate calculation of accrued interest at any point in time. An NCCR is not needed or typically used in capital markets products nor reflected in the ISDA IBOR fallbacks.

While it might "better support" intra-period prepayments (by making prepayment amounts more straightforward for lenders to calculate), the UK RFRWG's Best Practice Guide for GPB Loans notes that an NCCR is not essential for the purpose of calculating prepayment amounts. The NCCR is therefore of primary importance for the purposes of trading and efficient prepayments in syndicated deals. If LMA RFR terms are being adapted for bilaterals or even certain clubbed loans, the parties may agree to dispense with the Daily Non-Cumulative Compounded RFR Rate and calculate the Compounded Reference Rate by reference to a CCR formula only, which generates a single compounded rate of interest for the whole period.

The use of a CCR in appropriate cases will not only simplify the drafting of the loan agreement but may also better reflect the basis on which the CCR is recorded in most treasury management systems. It may also facilitate the use of indices (see section 5 of Part I).

3.2 Length of lookback

The compounding formulae in Schedules 14 and 15 incorporate a "Lookback Period". The reasons for the lookback are discussed in section 4.3 of Part I.

The length of the Lookback Period applicable to the relevant currency is specified in Schedule 13 (Reference Rate Terms). The five RFR Banking Day lookback recommended in the Sterling Loan Conventions is included as the optional default position for all Compounded Rate Currencies. Five RFR Banking Days appears to have been adopted in most transactions completed to date. There are, however, situations where a different Lookback Period might be more appropriate, for example, a shorter lookback if drawings are likely to be for very short periods. Conversely, a longer lookback might be appropriate if borrowers or certain borrowers are situated in jurisdictions where it takes more time to mobilise payments. The UK RFRWG has acknowledged possible variations in the length of the Lookback Period depending on borrower/lender need, for example in the context of transactions in developing markets.

In many RFR-linked deals, the length of the Lookback Period will also drive the notice period for voluntary prepayments of Compounded Rate Loans. See section 7.2 below.

3.3 Observation shift or not

The Compounded/Term MTR exists in two versions; the key difference between the two is in the compounding formulae in Schedules 14 (Daily Non-Cumulative Compounded RFR Rate) and 15 (Cumulative Compounded RFR Rate).

The versions of these Schedules without observation shift are reproduced in the Appendix to this Part II. In the version with observation shift, the weighting elements of the formulae refer to the days in the observation period rather than the days in the interest period. See section 4.4 of Part I.

Emerging market practice appears to be to adopt the lookback without observation shift approach in line with the recommendation of the UK RFRWG. Virtually all of the corporate loans containing a rate switch or referencing RFRs and completed over the last six months of which we are aware have not adopted the observation shift.

There may, however, be instances where a lookback with observation shift is the preferred approach, for example, where alignment with associated hedging is important (see section 8 of Part I) or where there is a desire to use a Compounded RFR Index that uses that convention (see section 5 of Part I).

3.4 Business Days, Additional Business Days and RFR Banking Days

The Compounded/Term MTR includes the concept of a Business Day, as well as two new defined terms – "Additional Business Day" and "RFR Banking Day". These are subtly different and must be used with care when adapting the terms of the template.

The definition of "Business Day" is used in the Compounded/Term MTR, as in the IBOR MTR, to frame time periods for payment obligations, notification obligations and other actions under the agreement. It is defined as a day on which banks are open for general business in London (reflecting that LMA terms assume the Agent is located in London) and a placeholder for any other specified financial centre. The placeholder will be typically filled to include the financial centre(s) of the currencies in which the facility is to be drawn (for example, New York for USD).

The definition of "Business Day" contains a further nuance in the Compounded/Term MTR. It provides that for certain actions under the agreement that require a rate fixing, "Business Day" means an "Additional Business Day". An "Additional Business Day" is defined as a day on which banks are open for general business

in London and such other day as is specified as an Additional Business Day for the relevant currency in Schedule 13 (Reference Rate Terms). The Additional Business Day concept is required to ensure that, for actions which require a rate fixing, the relevant reference rate is available.

In relation to Term Rate Loans, the concept of Additional Business Day applies only to the fixing of the interest rate itself. Term rates are fixed on the Quotation Day specified in the Reference Rate Terms, which reflect the rate fixing convention in the relevant currency. EURIBOR is quoted on every day that TARGET is open. An Additional Business Day is therefore a TARGET Day.

In relation to Compounded Rate Loans, there are a broader set of actions which depend on the RFR being published as well as a Business Day in London, namely (i) the date for payments relating to Compounded Rate Loans and (ii) the determination of the length/dates of an interest period for Compounded Rate Loans. For these actions in relation to Compounded Rate Loans, an Additional Business Day is further defined as a "RFR Banking Day". A "RFR Banking Day" for a given currency is a day on which the daily RFR is published as specified by currency in Schedule 13 (Reference Rate Terms).

The concept of a RFR Banking Day is also important on a standalone basis for the purposes of the compounding calculation (see section 3.1 above). The references to a RFR Banking Day in that context reflect the UK RFRWG's recommendation that interest is compounded only on days when the RFR is published and that in multi-currency loans, interest is compounded on RFR Banking Days for the drawn currency, ignoring whether the day is also a banking day of the other currencies or not. The concept is therefore relevant for determining the daily RFR to be used in the compounding calculation.

The length of the Lookback Period is also determined by reference to RFR Banking Days rather than Business Days (see section 3.2 above).

3.5 Day count conventions, interest calculation and payment conventions

Clause 32.3 (Day count convention and interest calculation) applies a day count convention of ACT/360 or, if practice in a relevant market differs, in accordance with that market practice, to the calculation of any interest, commission or fee accruing under the agreement. This market practice override operates to apply a day count convention of ACT/365 (fixed) for sterling in line with the Sterling Loan Conventions.

The UK RFRWG updated its Best Practice Guide for GBP Loans and accompanying worked examples of the Sterling Loan Conventions in March 2021 to incorporate certain clarificatory amendments relating to rounding. The clarification states that when using the NCCR, interest should be rounded to 2 decimal places only at the end of the Interest Period. This is necessary to ensure that daily interest amounts calculated using the NCCR equal exactly amounts calculated using the CCR (in accordance with the Sterling Loan Conventions).

This clarification resulted in some adjustments to Clause 32.3 as it originally appeared in the LMA's January 2021 Exposure Draft of the Compounded/Term MTR and the deletion of the concept of "Block Rounding Period". The final recommended form of this clause makes clear that any interest, commission or fee accruing under a Finance Document will be calculated without rounding. However, the total amount of any accrued interest, commission or fee which is, or becomes, payable shall be rounded to two decimal places. Note the distinction here between the calculation of the rate (no rounding) and amounts of interest etc. that become payable (rounded to two decimal places).

It is understood that if calculations are made using the previous version of this clause, the difference between a calculation with and without rounding would amount to a matter of pence, in terms of the difference between the output of the NCCR and CCR methodologies.

While the rounding provisions in Clause 32.3 have been drafted to accommodate the Sterling Loan Conventions and compounded RFRs, they apply to all rate calculations and interest payments under the agreement to avoid unnecessary complication. This should not result in changes to amounts of interest payable in respect of Term Rate Loans. Term rates (eg EURIBOR) appear on screen, rounded in accordance with market convention, so that the specified calculation rounding convention does not apply. Further, general market practice is to round all amounts of interest payable to two decimal places for practical reasons.

Schedule 14 (Daily Non-Cumulative Compounded RFR Rate) and its footnotes, reproduced in the Appendix to this Part II, provide that in applying the formula to calculate the daily rate, the "no rounding" convention is subject to the limits of systems capabilities. This is to ensure that rounding-related systems constraints do not prevent a Finance Party from performing the necessary calculations.

Treasurers may wonder, if such systems limitations result in the use of rounded amounts, whether that is inconsistent with the recommendations of the UK RFRWG noted above and as reflected in Clause 32.3 (Day count convention and interest calculation). It is understood that this should not be the case.

A systems "work around", known as the "crumbs" approach, enables the daily amounts of interest which result from the application of the NCCR to the principal amount to be carried forward on an unrounded basis. However, it seems that the "crumbs" approach cannot be used in the calculation of the daily NCCR itself as some systems have a maximum number of decimal places, eg 16. This is the reason for the wording addressing the limits of systems capabilities in this Schedule. Appendix 3 of the UK RFRWG's Best Practice Guide for GBP Loans, "Technical and Systems Capability Guidance", contains further information on this topic.

Business Day conventions for the payment of interest are specified by currency in Schedule 13 (Reference Rate Terms). The Compounded/Term MTR applies the "Modified Following Business Day Convention" to Term Rate Loans and Compounded Rate Loans, such that payments of interest that would fall to be made on a day that is a Non-Business Day are adjusted to the next succeeding Business Day, unless that Business Day falls in the next calendar month, in which case the interest payment date is the preceding Business Day. This is in line with the UK RFRWG recommendation for sterling RFR loans.

See section 3.4 above in relation to the definition of Business Day.

3.6 Zero floors

It has become reasonably common in LIBOR and EURIBOR referencing loans to set a contractual floor of zero on the benchmark rate, such that the Lenders' Margin yield is protected should the benchmark become negative. The definitions of "LIBOR" and "EURIBOR" in the IBOR MTR provide, optionally, that each relevant IBOR shall be floored at zero. If the zero floor is included, the amount of interest payable (the sum of the relevant IBOR and the Margin), cannot fall below the amount of the Margin.

The Compounded/Term MTR applies the same optional zero floor wording to Term Rate Currencies as in the IBOR MTR, in the definition of "Term Reference Rate". The operation of the zero floor (if agreed) to a Compounded Rate Currency, however, is presented differently. The Sterling Loan Conventions recommend the daily application of any agreed interest rate floor (rather than the floor being applied at the end of the interest period as in the case of Term Rate Loans) because Compounded Rate Loans accrue interest daily. Accordingly, the zero floor applicable to a Compounded Rate Currency appears in the definition of "Daily Rate" (which is either the relevant RFR for a given RFR Banking Day, or, if unavailable, the applicable fallback) in Schedule 13 (Reference

Rate Terms). The definition of Daily Rate provides, optionally, that if the Daily Rate is less than zero, it shall be deemed to be zero. The optional zero floor wording is applied here rather than in the definition of Compounded Reference Rate, so that the zero floor is applied daily in the compounding formulae.

There is a commercial point here for Borrowers regarding the operation of the zero floor, if included, in relation to Compounded Rate Loans.

In RFR-linked facilities that include a separate CAS as part of the pricing, it is typically the case that any interest rate floor is applied to the sum of the compounded RFR and CAS, rather than the compounded RFR alone. In other words, the floor is applied to all components of the pricing that reflect amounts that would once have been reflected in LIBOR. The purpose of this practice is to align the application of a zero floor in a RFR-linked facility to how a floor would apply in a loan referencing LIBOR, and is consistent with the principle that the transition from LIBOR to RFRs should not involve a transfer of value between Lender and Borrower.

This also reflects the UK RFRWG's recommendation for legacy contracts containing an interest rate floor, that where the aggregate of the RFR and CAS is less than the floor value, the CAS should remain unchanged with the RFR adjusted to ensure that the sum of the two is equal to the floor value. The UK RFRWG has however recognised that an alternative method, where the CAS is adjusted, may be preferred by some market participants.

The Compounded/Term MTR applies the zero floor to the sum of the Daily Rate plus CAS in relation to Rate Switch Currencies, which switch to a compounded RFR plus CAS (see further section 4 below). This approach also applies in relation to Term Rate Currencies for which a compounded RFR plus CAS is to apply as a fallback (see further section 5 below). However, the same does not apply to Compounded Rate Loans which reference compounded RFRs from the date of the agreement (ie. loans in sterling, USD and CHF). A footnote in the agreement records the reason for this: to avoid an economic difference between transactions that include a separate CAS as part of the Compounded Reference Rate and those which do not.

In the Compounded/Term MTR, whether to include a separate CAS as part of the Compounded Reference Rate for sterling, USD and CHF is optional (see section 3.7 below). If a separate CAS is included (ie. the Compounded Reference Rate is priced at the Daily Non-Cumulative Compounded RFR Rate plus CAS), the definition of "Daily Rate" can be adjusted easily to provide that if the aggregate of that rate and the applicable CAS is less than zero, the Daily Rate shall be deemed to be such a rate that the aggregate of the Daily Rate and the applicable CAS is zero. Borrowers may wish to make this adjustment, in particular, in the current interest rate environment.

If the pricing does not include a separate CAS (ie. the Compounded Reference Rate is priced at the Daily Non-Cumulative Compounded RFR Rate only), Borrowers may wish to consider the potential impact of any zero floor. Some might argue that the zero floor should not apply (certainly if that was the case in relation to their LIBOR facilities). Other options might include building in a CAS-equivalent adjustment, simply for the purposes of applying the floor. For example, the definition of "Daily Rate" could be adjusted to provide that if the aggregate of that rate and (for example) a specified "floor adjustment" (a number of bps) is less than zero, the Daily Rate shall be deemed to be such a rate that the aggregate of the Daily Rate and the applicable floor adjustment is zero. This could also potentially be achieved by applying a Margin ratchet mechanism that adjusts the Margin by reference to a negative Daily Rate.

3.7 Credit adjustment spread (CAS)

CAS or not?

As discussed in section 6 of Part I, there are two ways of minimising the economic difference between IBORs and RFRs in loan pricing – either the Margin is increased by the appropriate amount, or a CAS is included as a separate component. Whether the Compounded Reference Rate (the interest rate on Compounded Rate Loans) includes a CAS – a "Baseline CAS" in the terminology of the Compounded/Term MTR – is therefore optional.

A CAS is useful as a means of monitoring the economic impact of transition in loans that are moving from LIBOR to RFRs via either an amendment process or pursuant to rate switch provisions. It is less obvious why a separate CAS is required in a new RFR-referencing facility. Some RFR-linked loans have used a separate CAS possibly because it is helpful for purposes of transparency in this transitional period, but also because a CAS assists with the structuring of other aspects of the agreement (for example, the operation of zero floors, see section 3.6 above and the market disruption provisions, see section 6 below). More recently, RFR-linked lending appears to be proceeding in many cases without a separate CAS component. In either case, the pricing will, of course, be agreed between the parties in the normal way, taking into account market conditions, relationships and other factors.

Even if no Baseline CAS is included, treasurers will need to be familiar with the options for calculating the CAS in line with their preferred approach to enable them to anticipate the size of the Margin uplift that might be expected compared to previous LIBOR facilities. This will need to be considered currency by currency and taking into account the operation of the zero floor, see section 3.6 above.

In contrast to the IBOR MTR, which envisages a single Margin for all currencies, the Compounded/Term MTR provides for a Margin to be specified in the Reference Rate Terms for each currency separately. Margins are likely to vary by currency where a Margin uplift is used to address the economic difference between IBORs and RFRs for Compounded Rate Currencies. The RFRs are quite different – and may generate quite different figures for the CAS and therefore any associated Margin uplift. The BISL CAS rates, as fixed on 5 March 2021, provide an illustration.

Consideration should also be given to the impact of any increased Margin on other metrics in the facility agreement that reference the Margin. For example, whether Margin ratchet amounts need to be re-set. If commitment or other fees are set at a proportion of the Margin, that proportion may need to change from the levels customary in LIBOR facilities.

CAS methodology

There are two methodologies for calculating the CAS that have emerged in the context of actively transitioned loans, the 5YHLB approach and the forward approach, as discussed in section 6 of Part I. As far as we are aware, the CAS applicable to most actively transitioned sterling and USD English law RFR-linked loans completed to date has been calculated based on the 5YHLB methodology However, some early sterling RFR-linked loans used the forward approach and it has been considered again in a few more recent sterling loans.

Interest in alternatives to the 5YHLB more recently may have been due to the movements in the LIBOR/SONIA spread. These are described in the FCA's Q&As on conduct risk in relation to LIBOR transition:

"*In spring 2020…as financial markets reacted to the impact of coronavirus (Covid-19), the spread between LIBOR and SONIA moved substantially above the then 5-year historical median. The spread then moved below the 5-year historical median due to various market factors. This likely included the significant expansion of liquidity provided by central banks, though market prices suggest expectations that it will rise again in future.*"

Any economic differences between a CAS calculated using the forward approach and a CAS calculated based on a 5YHLB will need to be assessed at the time of the transaction.

When determining whether to adopt the forward approach or the 5YHLB, relevant considerations may include consistency with other products as well as the relative outputs of each calculation methodology. The forward approach may be more consistent with the approach being taken in the derivatives market to active transition (as opposed to transition via fallbacks on cessation/pre-cessation where the 5YHLB is being used), as well as in the sterling FRN market. The approach to the CAS may also depend on the banking group. Some lenders, for example, appear to have adopted a policy of using only the 5YHLB for operational reasons.

If a Baseline CAS is to be included, the parties will need either to specify the methodology to be used to calculate it in the agreement, or if it is to be a fixed amount, insert the agreed amount. If a methodology rather than a fixed CAS is specified, a footnote in the Compounded/Term MTR highlights the possibility that the Baseline CAS could be a negative number and suggests the parties consider applying a zero floor. We have not seen this adopted in practice yet.

Should the parties specify a methodology or a fixed CAS?

In rate switch deals, there remain a variety of approaches. The parties may specify a methodology to be applied when the switch occurs, if the Agent is happy to undertake those calculations. Alternatively, the CAS may be fixed at a specified percentage per annum, or in some more recent deals, by reference to the appropriate BISL CAS.

In a loan referencing a RFR from the outset, a fixed CAS, either a percentage per annum or the adoption of the BISL CAS, appears the more common approach, where a separate CAS is included (which as noted above, is not always the case). In some instances a methodology could be considered which is applied to calculate the spread at the beginning of each Interest Period, although it may be necessary to take into account how the spread would be calculated after the cessation of the relevant LIBOR rate.

There may also be a question as to whether the Baseline CAS should vary according to the length of the Interest Period applicable to the relevant Compounded Rate Loan. Again, the BISL CAS illustrate that spreads can be different across Interest Periods. Some Borrowers may prefer a single or blended CAS that applies across all tenors.

Rate Switch CAS/Fallback CAS

The Compounded/Term MTR contains two further concepts of CAS, in addition to the Baseline CAS referred to above:

- A “Rate Switch CAS” is part of the Compounded Reference Rate applicable following a rate switch for a Rate Switch Currency.
- A “Fallback CAS” is part of the Compounded Reference Rate applicable to a Term Rate Currency for which a Compounded Reference Rate applies as a fallback to the relevant Primary Term Rate.

Unlike the Baseline CAS which is presented as optional, the Rate Switch CAS and Fallback CAS are both assumed to apply as a means of addressing the economic difference between the relevant IBOR and compounded RFR on a shift from one to the other. A footnote highlights the possibility that these CAS may be capable of producing a negative result when calculated, in which case the parties may wish to apply a zero floor.

The rate switch and fallback provisions of the Compounded/Term MTR, including the appropriate CAS, are discussed further in section 4 and section 5 below.

3.8 Application of Sterling Loan Conventions

The Compounded/Term MTR applies the Sterling Loan Conventions to Compounded Rate Loans in all currencies (ie. sterling, USD, CHF and euro (where applicable)). As noted in section 4.6 of Part I, while there are some differences between the conventions recommended by each of the Working Groups for their domestic market, for simplicity and potential operational ease, the LMA RFR Templates do not attempt to accommodate these variations. However, this is not a recommendation. Should the parties decide to adopt different conventions, the relevant terms can be adjusted as required.

Borrowers will need consider the appropriate conventions by reference to their broader capital structure and home currency. For example, while predominantly sterling borrowers may be happy to apply the Sterling Loan Conventions to drawings in other currencies, predominantly USD denominated groups may wish to apply the ARRC conventions for SOFR in arrears to USD drawings for consistency with other USD liabilities and/or hedging arrangements.

Initial indications are that the LMA's approach of applying the same conventions across all currencies is being accepted in multi-currency facilities. At the time of writing, this is based on a relatively small sample and may be the result of the sterling loan market being ahead of other currencies in terms of the rate of transition.

3.9 Interest periods

The permitted length of Interest Periods are left to be specified in Schedule 13 (Reference Rate Terms) by currency.

As RFRs can be compounded over any given period, the length of permitted interest periods for Compounded Rate Currencies can, in theory, be agreed at whatever length best suits the parties. Unless Borrowers have a specific need for flexibility, emerging practice suggests that Interest Periods for Compounded Rate Loans are largely the same as those that feature in LIBOR-referencing loans ie. one, two, three or six months, or as otherwise agreed between the parties.

In LIBOR-referencing loans, Interest Periods of twelve months may also be permitted. Paragraph (h) of Clause 10.1 (Selection of Interest Periods) of the Compounded/Term MTR, however, states that no Interest Period shall exceed six months.

The reason for this relates to Compounded Rate Loans. In relation to Interest Periods of longer than six months, customary practice has been to require the Borrower to make interim payments of interest every six months. The NCCR methodology does not envisage the making of interest payments during an Interest Period and would need to be adjusted to accommodate this (compounding being aimed at compensating lenders for the time value of money).

While of primary relevance to Compounded Rate Loans, the restriction in the Compounded/Term MTR applies to both Compounded Rate Loans and Term Rate Loans. This is because the application of the NCCR is also relevant to Rate Switch Currencies following a switch and Term Rate Currencies for which a Compounded Reference Rate is to apply as a fallback to the relevant Primary Term Rate (see section 4 below). Where neither of these circumstances apply, Borrowers who would prefer more flexibility may wish to consider limiting any restriction on the maximum length of interest periods to Compounded Rate Currencies only.

4. Rate switch for Term Rate Currencies

Clause 9A (Rate Switch) provides a mechanism that can be applied, optionally, to any Term Rate Currency such that, on a pre-agreed date or following the occurrence of a specified trigger event, the interest rate for loans in that currency will automatically switch from referencing an IBOR to referencing a compounded RFR. The provisions of this clause reflect the mechanism in the Rate Switch MTR.

A Term Rate Currency to which the rate switch is specified to apply is referred to as a "Rate Switch Currency". A Term Rate Currency will only be a Rate Switch Currency if it is designated as such in Schedule 13 (Reference Rate Terms) and if that Schedule includes Reference Rate Terms applicable to Compounded Rate Loans in that currency.

The Reference Rate Terms for a Term Rate Currency which is also a Rate Switch Currency will therefore need to include two parts – one which sets out the terms that apply to loans in that currency prior to the switch (ie. loans referencing the relevant IBOR) and one which sets out the terms that apply to loans in that currency after the switch (ie. loans referencing the relevant compounded RFR).

The Compounded/Term MTR optionally applies the rate switch provisions to euro only, euro being the only Term Rate Currency. This provides a model for Reference Rate Terms that may be helpful for any other Rate Switch Currencies that might be added. The designation of euro as a Rate Switch Currency is not, however, mandatory. Some Borrowers may conclude it is helpful to include a framework for euro, which can be applied at the agreed "Rate Switch Date" (see further below). However, given there are no current plans to discontinue EURIBOR, and the conventions for referencing €STR in loans are yet to be finalised, it is anticipated that many Borrowers may prefer to wait and see. This would mean RFR terms for euro would be negotiated as required pursuant to the "Changes to the Reference Rate" provisions (discussed at section 8 below).

The more likely application of the rate switch provisions may be to loans in USD, in light of the FCA's confirmation that most USD LIBOR tenors will continue to June 2023 (discussed in section 2 of Part I). While the authorities, as already noted, have indicated that there will be restrictions on the use of the remaining USD LIBOR tenors after the end of 2021, there may be good reasons why some Borrowers may prefer to wait to switch to SOFR. A key point to note is that, as mentioned in section 8 of Part I, USD LIBOR hedging that incorporates the ISDA IBOR Fallbacks will not fall back to SOFR on 1 January 2022, when the first of the USD LIBOR tenors cease. Instead, the ISDA IBOR Fallbacks provide for the use of interpolated USD LIBOR rates until 30 June 2023 when the remaining USD LIBOR tenors cease or lose representativeness.

The "Rate Switch Date" is a key definition for Borrowers to pay attention to if Rate Switch Currencies are included. This is the date following which (subject to limited exceptions) interest payable in respect of loans in the Rate Switch Currency will cease to reference LIBOR, and instead will reference RFRs.

The "Rate Switch Date" is defined as the earlier of the "Backstop Rate Switch Date" and any "Rate Switch Trigger Event Date" for a given currency:

- A Backstop Rate Switch Date is a pre-agreed date which is specified in the agreement or subsequently agreed between the parties (the Agent, the Company and the specified majority of Lenders). This is to be used if the parties wish, at some point after the date of the agreement, to actively transition loans in the Rate Switch Currency to RFRs.
- A Rate Switch Trigger Event Date is intended to capture those dates on which transitioning loans in the Rate Switch Currency to RFRs becomes necessary. In summary, it captures the date on which the Primary Term Rate (ie the relevant IBOR) is discontinued or (optionally) the date on which it becomes non-representative of the underlying market it is intended to measure (with the option to specify additional trigger events).

The definition of Rate Switch Date provides for the switch to occur in relation to a Rate Switch Currency if a Rate Switch Trigger Event occurs in relation to one or more "Quoted Tenors" ie. tenors for which the relevant benchmark is quoted. This means, for example, that upon the planned cessation of certain USD LIBOR rates at the end of 2021, if USD is a Term Rate Currency and a Rate Switch Currency, Loans in USD would cease to reference LIBOR notwithstanding the continuing availability of the more popular USD LIBOR tenors. Borrowers may wish to consider whether this is the preferred outcome.

Following the Rate Switch Date, interest on loans in the Rate Switch Currency will be the sum of the Compounded Reference Rate plus the Margin, where the Compounded Reference Rate is the sum of the compounded RFR plus a CAS. The Compounded/Term MTR assumes a "Rate Switch CAS" will apply to account for the economic difference between the relevant IBOR and compounded RFR following a switch, and to thereby ensure there is no transfer of value from one party to another.

Clause 9A contains two options relating to the timing of the Rate Switch. Clause 9A.2 provides that notwithstanding the occurrence of a Rate Switch Trigger Event, drawn loans will continue to reference the Primary Term Rate until the end of the Interest Period. New or rollover drawings after the Rate Switch Date will use the Compounded Reference Rate. This means, for example, that if a rate switch date occurred on 1 January 2022, a drawing on 31 December 2021 referencing 3 month LIBOR would continue to bear interest at LIBOR until the end of the Interest Period at the end of March 2022. For the next interest period, the loan would bear interest at the Compounded Reference Rate.

Optional clause 9A.3 provides (where the Rate Switch Date is known in advance), for Interest Periods applicable to drawn loans that extend beyond the Rate Switch Date to be shortened such that they come to an end on the Rate Switch Date (meaning accrued interest will need to be paid earlier). This optional clause has not been widely adopted so far as far as we are aware.

Clauses 9A.2 and 9A.3 should be considered in light of the operation of any related hedging, so the products move in tandem. Under the ISDA Protocol and the ISDA Supplement, the LIBOR rate for any reset date under the swap following the Index Cessation Effective Date will be the RFR fallback rate. A swap hedging a loan should include reset dates that are aligned with the loan's LIBOR fixing dates, meaning that Clause 9A.2 may be the correct default position for the loan if ISDA standard terms are maintained for the swap.

How the Rate Switch CAS is to be calculated is left to be agreed by the parties. The possibilities are discussed in section 3.7 above. In the context of a rate switch the Borrower will also need to consider whether it wishes to specify the Rate Switch CAS in the agreement, or rather specify the methodology to be applied to calculate the CAS when the Rate Switch Date occurs. Some Agents have expressed a reluctance to apply a methodology, preferring to apply a fixed CAS instead. Borrowers will, however, need to think carefully about the implications of a fixed CAS, in particular in relation to currencies where the anticipated switch date spans beyond this year.

5. Fallbacks

5.1 Term Rate Currency fallbacks

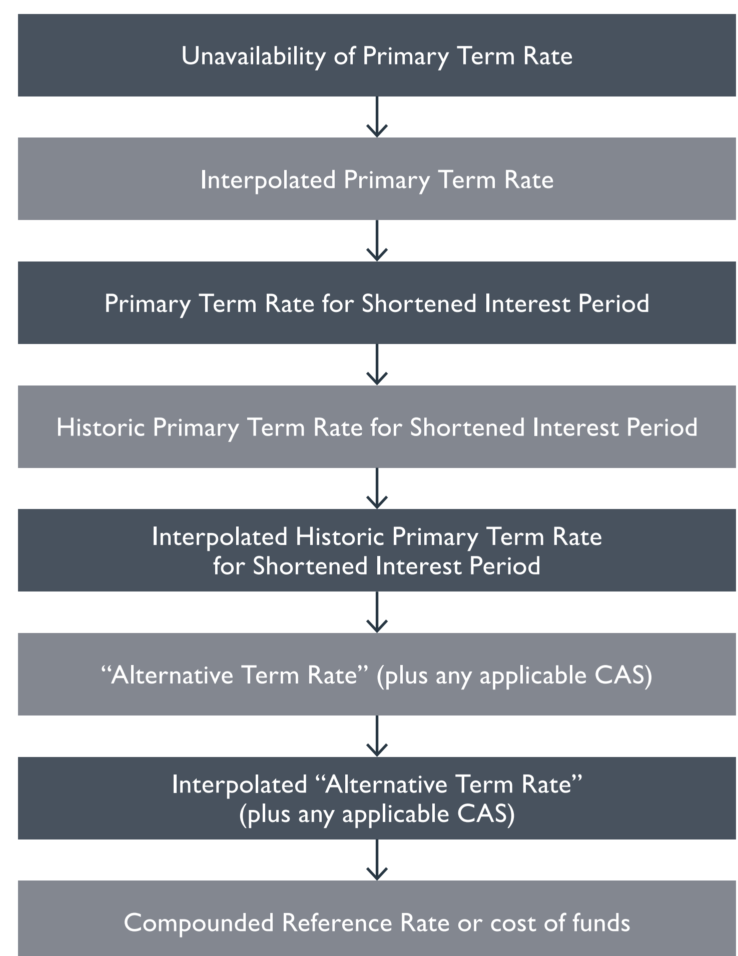
Fallbacks are intended to address the temporary unavailability of a reference rate, by specifying how the interest rate will be calculated in the event that the relevant reference rate is unavailable for a given period. The Compounded/Term MTR applies different fallbacks to Compounded Rate Loans and Term Rate Loans.

The fallbacks that apply to Term Rate Loans under the Compounded/Term MTR are an updated version of those that apply under the IBOR MTR and which are discussed in the ACT Borrower's Guide. If the Primary Term Rate (ie. the relevant IBOR) is unavailable, while there is now no fallback to Reference Bank Rates, an expanded waterfall of other options is provided, from which the parties can pick the components they wish to apply. The full list of options is illustrated in the diagram opposite.

The new options included in the Compounded/Term MTR are the fallback to an Alternative Term Rate and the fallback to a Compounded Reference Rate.

An "Alternative Term Rate" contemplates the availability of another forward-looking term rate for the relevant currency. The thought here is that the forward-looking term rates to be derived from certain of the RFRs (discussed at section 3 of Part I) might be appropriate fallbacks. Where the relevant term rate is not yet available, this is not necessarily a barrier to its inclusion in the waterfall as an interim fallback, although Borrowers may obviously prefer to have an idea of how the rate behaves and the appropriate CAS to be applied, before agreeing to its inclusion.

The fallback to a Compounded Reference Rate or cost of funds in the final stage of the waterfall envisages the use of a compounded RFR plus CAS as a temporary fallback for Term Rate Currencies, or else cost of funds, the current ultimate fallback in most IBOR-referencing loans.



The Compounded/Term MTR does not apply either of the two new fallbacks (to an Alternative Term Rate and Compounded Reference Rate) to loans in euros. Instead, save for the removal of references to Reference Bank Rates, the fallbacks from EURIBOR are configured in the same way as those in the IBOR MTR.

The omission of a fallback to an Alternative Term Rate ie. a forward-looking term rate derived from €STR is the result of the public consultation by the Euro Working Group on €STR-based EURIBOR fallback rates, which envisages that the use cases for a forward-looking term rate derived from €STR are relatively narrow and do not include mainstream corporate lending.

The omission of a fallback to compounded €STR for loans in euro is because the Euro Working Group is expected shortly to make recommendations for EURIBOR fallbacks following the public consultation referred to above. The LMA's intention is to update the EURIBOR fallbacks in its documentation in due course to the extent necessary to reflect the outcome of that consultation and any resulting recommendations.

5.2 Compounded Rate Currency fallbacks

The fallbacks that apply to Compounded Rate Loans under the Compounded/ Term MTR are simpler than those that apply to Term Rate Loans.

A key input into the compounding formulae in Schedules 14 (Daily Non-Cumulative Compounded RFR Rate) and 15 (Cumulative Compounded RFR Rate) is the "Daily Rate" for the relevant RFR Banking Day. This is the relevant RFR (ie. SONIA, SOFR or SARON) or, if the RFR is not available, a fallback rate. If the RFR is unavailable on any day, a Central Bank Rate plus an optional spread adjustment (the "Central Bank Rate Adjustment") will apply in place of the RFR in the compounding calculation. If the Central Bank Rate is unavailable on any day, a historic Central Bank Rate (no more than a specified number of days old) plus an optional spread adjustment will apply.

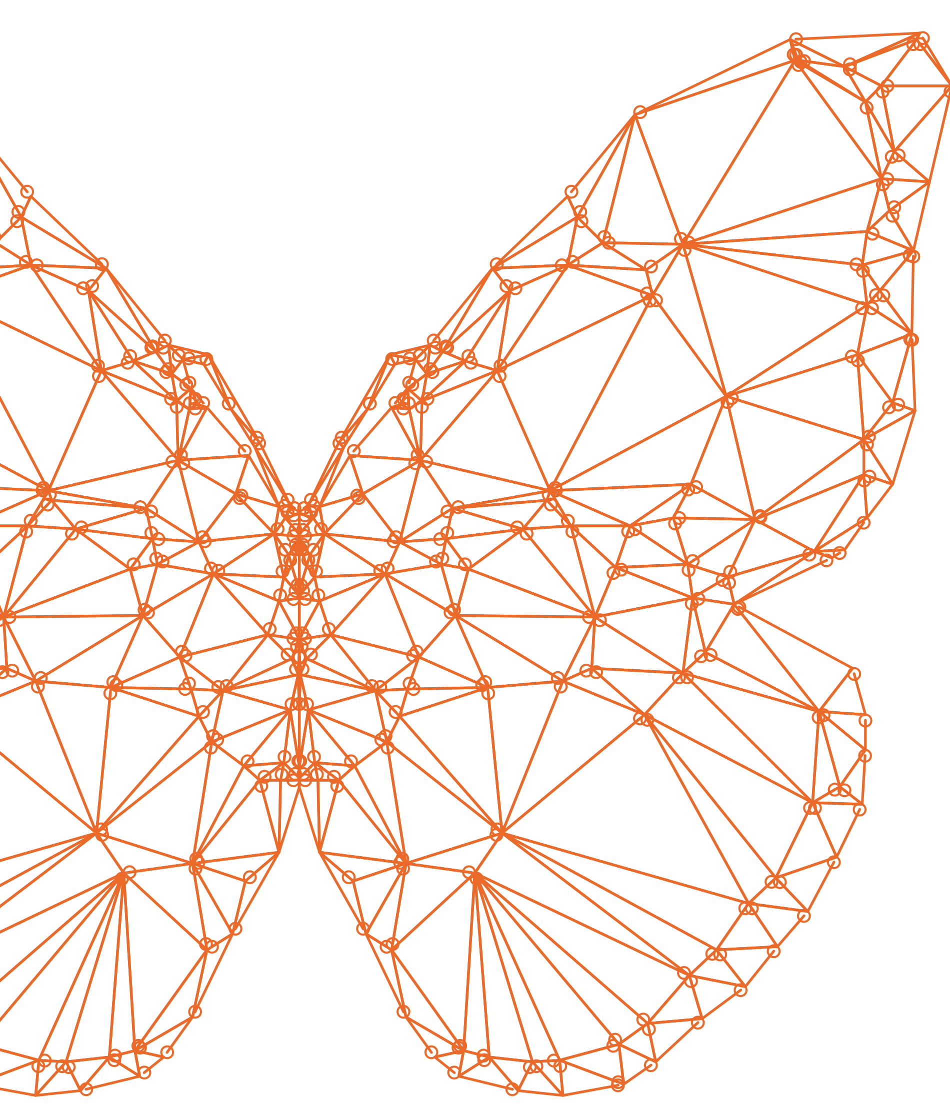
These fallbacks are specified by currency in Schedule 13 (Reference Rate Terms). The inclusion of Central Bank Rates in the waterfall obviously means the drafting is different for each currency.

The inclusion of an ultimate fallback to cost of funds is optional for Compounded Rate Loans. There is some debate as to whether an ultimate fallback to cost of funds is appropriate for Compounded Rate Loans. This is partly conceptual. RFRs are not a proxy for term funding costs in the way that LIBOR is. There is also an argument that an ultimate fallback beyond a central bank rate is unnecessary, given the very remote possibility of it ever being triggered (and the provision in Clause 1.2(f), which provides that any reference to a central bank rate in the agreement includes any replacement for or successor to that rate). In many deals, cost of funds is being omitted in relation to Compounded Rate Loans.

5.3 New definition of cost of funds

If cost of funds is adopted as a fallback, Borrowers should note that the LMA has used the LMA RFR Templates to introduce a new definition of "cost of funds" into its documentation. This definition is relevant both to the application of cost of funds as a fallback and for the purposes of the market disruption provisions (see section 6 below).

The previous concept of cost of funds in LMA facility documentation, which required the Lender to assess the cost of funding their participation in the loan in question from whatever source they might reasonably select, gave rise to practical difficulties if invoked. The LMA expresses this difficulty (in the Commentary to the LMA RFR Templates) as "particularly acute when institutions assess the cost of their funding requirements on an aggregated non-granular basis". The new definition of "cost of funds" appears in clause 1.2 (Construction) and reads as follows:



"a Lender's "cost of funds" in relation to its participation in a Loan is a reference to the average costs (determined either on an actual or notional basis) which that Lender would incur, were it to fund, from whatever source(s) it may reasonably select, an amount equal to the amount of that participation in that Loan for a period equal in length to the Interest Period of that Loan"

In the context of Compounded Rate Loans, for the reasons given in this section 5 and section 6 below, the concept of cost of funds may be dispensed with. To the extent that it is retained, this definition is aimed at making its application more accessible to the Lenders. The reference to "average" costs is intended to enable the Lenders to assess their funding costs by reference to the cost of their funding activities for the relevant period and amount as a percentage per annum on an aggregated basis, rather than needing to assess the costs of any increased funding requirements for the relevant period attributable to the loan. The reference to "notional" costs allows the Lenders to do this on 6.

6. Market disruption

Market disruption provisions were designed to protect Lenders against disruption in the interbank funding market, by allowing them to recover their actual cost of funds if a sufficient proportion of the syndicate notify the Agent that they are unable to fund themselves at the relevant reference rate ie. the IBOR. The notification must be made at the beginning of the relevant Interest Period when the forward-looking rate is set. The Lenders' cost of funds as notified to the Agent ("Funding Rates" in LMA terminology) will then apply in place of the relevant IBOR for that Interest Period. Lenders' cost of funds are based on whatever source they may reasonably select.

The application of the market disruption provisions to loans referencing RFRs has been the subject of some debate, given the point, noted in section 5 above, that RFRs are not a proxy for term funding costs in the same way as LIBOR.

In the Compounded/Term MTR the market disruption provisions apply in the same way to Term Rate Currencies as in the IBOR MTR, but are presented as optional in relation to Compounded Rate Currencies. The benchmark against which Lenders are to judge their funding costs is, however, now termed the "Market Disruption Rate" to accommodate multiple rates and is specified by currency in Schedule 13 (Reference Rate Terms). If a specified percentage of Lenders notify the Agent that they are unable to fund themselves at the specified Market Disruption Rate for the currency in question, that rate will be replaced in the interest calculation with the Lenders' cost of funds.

See section 5.3 above in relation to the definition of "cost of funds" that is applicable for this purpose.

The Market Disruption Rate for Term Rate Currencies will be the relevant IBOR. The Market Disruption Rate for Compounded Rate Currencies, if included, is the aggregate of the compounded RFR and CAS (if any).

Where there is a CAS, the market disruption provisions should operate in relation to Compounded Rate Loans in the same way as in relation to Term Rate Loans. Where there is no CAS, cost of funds may not be an accurate substitute for the compounded RFR – and more importantly, the provision may arguably be easier to trigger (RFRs not being a reflection of funding costs in distressed markets). Borrowers may argue, therefore, that market disruption provisions are redundant in the context of Compounded Rate Loans.

An additional point to be aware of is that to work in the context of backward-looking rates, Lenders are not required to report market disruption in relation to Compounded Rate Loans until the "Reporting Time", which is (in summary) the number of days equal to the Lookback Period prior to the last day of the Interest Period. This means that the Borrower may not be notified until a few days before an interest payment is due that it is payable on a cost of funds basis, giving it limited options but to pay. In relation to Term Rate Loans, in contrast, the notification deadline at the beginning of the Interest Period gives rise to the possibility for the Borrower of negotiating a right to revoke any utilisation request (or otherwise, to make a voluntary prepayment), if cost of funds applies.

As a result of these difficulties, the omission of market disruption provisions in relation to Compounded Rate Loans has been agreed in some RFR-linked loans signed so far, although there are a range of views among Lenders. Where market disruption provisions are retained, Borrowers will want to pay close attention to the specified percentage of Lenders required to trigger the provisions to safeguard themselves as far as possible from the likelihood that the provisions are triggered.

As noted in section 3.1 above, the cumulative compounding formula in Schedule 15 (Cumulative Compounded RFR Rate) is included to enable the compounded RFR to be calculated over the Interest Period for the purposes of the Market Disruption Rate.

7. Prepayments

7.1 Break costs

The IBOR MTR requires that, where a loan is repaid mid-Interest Period, the Borrower compensate the Lenders for their broken funding costs through the payment of Break Costs. The concept of Break Costs assumes that Lenders are funding themselves on a matched term IBOR basis in the interbank market. Such costs are therefore not possible to calculate in a meaningful way in relation to Compounded Rate Currencies. The Compounded/Term MTR therefore continues to apply Break Costs to Term Rate Currencies, but provides for the optional application of Break Costs (calculated as agreed between the parties) to Compounded Rate Currencies.

Emerging market practice points strongly in favour of the disapplication of Break Costs to Compounded Rate Loans. In a few instances, this has led to Lenders seeking alternative protection in the form of a prepayment premium or administrative fee to cover the costs of managing mid-Interest Period prepayments. In others, Lenders have sought to address this concern by placing limits on the number of voluntary prepayments permitted in any given period (see further section 7.2 below).

7.2 Voluntary prepayments

The IBOR MTR permits voluntary prepayments to be made by the Borrower provided a minimum period of notice is given to the Agent. The length of the notice period is left to be decided by the parties.

The Compounded/Term MTR retains this position in respect of Term Rate Loans and Compounded Rate Loans. It does, however, provide for a different minimum notice period to be specified depending on whether the loan is a Term Rate Loan or Compounded Rate Loan. This is because prepayments must be made together with accrued interest on the amount prepaid (a position unchanged from that under the IBOR MTR and in line with the UK RFRWG recommendation that proportional accrued interest be paid at the time of prepayment on any amounts of principal prepaid). The notice period for voluntary prepayments of loans therefore needs to take into account the processes involved in calculating the amount of accrued interest payable and the amount of notice needed by the parties of such amount, which are potentially different for Term Rate Loans and Compounded Rate Loans.

The length of the notice period for voluntary prepayments of Compounded Rate Loans will, in most cases, therefore, need to be no less than the length of the Lookback Period, which will have been set taking these factors into account in respect of interest calculations and payments generally (see section 3.2 for further details). This is, in a number of cases, resulting in a longer minimum notice period for voluntary prepayments of Compounded Rate Loans than applies to voluntary prepayments of Term Rate Loans. For example, if the recommended five RFR Banking Day lookback applies to Compounded Rate Loans, Lenders are typically seeking at least five Business Days' notice of voluntary prepayments.

As noted in section 7.1 above, Lenders are, in some circumstances, seeking to limit the number of voluntary prepayments permitted in any given period as a quid pro quo for omitting Break Costs from application to Compounded Rate Loans. Borrowers will need to negotiate any restrictions on the number of prepayments permitted in a given period so that the number is set at an appropriate level according to their needs.

8. Changes to the reference rates

The LMA introduced "Replacement of Screen Rate" provisions to be included optionally in its recommended forms a number of years ago. These provisions were subsequently incorporated into all the LMA recommended forms, on an optional basis.

The provisions were introduced to enable LIBOR and EURIBOR Screen Rates to be replaced with a lower consent threshold than would otherwise be required to make changes to the interest rate ie. with Majority Lender, rather than all Lender, consent, in a number of pre-defined circumstances. In the Compounded/Term MTR, these provisions have been updated and extended so they apply to both Screen Rates (eg EURIBOR) and any RFRs that become unavailable or require replacement after the date of the agreement.

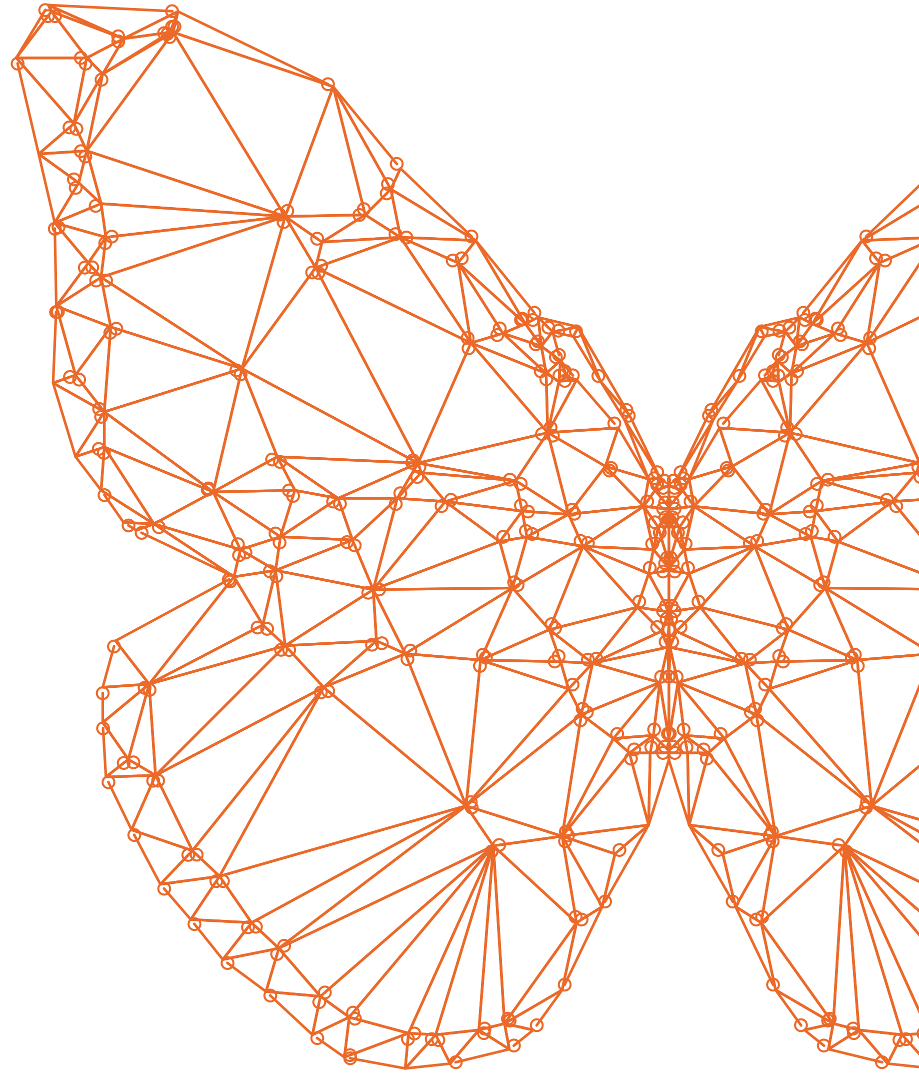
Clause 35.4 (Changes to reference rates) enables the parties to make amendments/waivers to the agreement in question to replace any existing reference rate with a replacement reference rate (together with associated changes) with Majority Lender, rather than all Lender, consent. The amendment process can be initiated by the Finance Parties or the Borrower. The parties have the option to restrict the application of the clause so that it is only triggered upon the occurrence of specified events ("Published Rate Replacement Events"), such as the relevant reference rate being discontinued or no longer being representative of the underlying market it is intended to measure.

The definition of "Published Rate Replacement Event" includes the relevant reference rate being calculated in accordance with the rate administrator's contingency or fallback policies in circumstances which are not temporary or for a period no less than the "Published Rate Contingency Period'. The minimum period applicable to each currency must be specified in the Reference Rate Terms applicable to that currency. Contingency methodologies are typically intended only to be used for relatively short-term contingency events. The "Published Rate Contingency Period" should therefore be similarly relatively short, to reflect that the parties are likely to want to move on from eg historic rates (if that is the contingency methodology) to an alternative solution. Published Rate Contingency Periods of 30 days/one month have been agreed in a number of more recent facility agreements.

It is worth noting that pursuant to Clause 35.4, the occurrence of a Published Rate Replacement Event (eg cessation) that applies to one tenor of a reference rate will facilitate the replacement of the reference rate for that tenor only and not for all tenors for which the relevant reference rate is published. In this respect, this trigger for an amendment process as a means of addressing the replacement of reference rates differs from the rate switch provisions in Clause 9A. Under the rate switch provisions, where the trigger occurs in relation to one tenor only, the rate switch occurs for the relevant currency generally ie. for all tenors. The potential implications of this are discussed in section 4 above.

The list of amendments to the agreement which can be made with Majority Lender consent pursuant to Clause 35.4 has also been expanded from that in the IBOR MTR to include amendments that relate to, or have the effect of, aligning the means of calculating interest on a Compounded Rate Loan to any subsequent recommendations issued by a relevant body. This is a potentially helpful provision, which has been included on an optional basis to give parties some degree of flexibility in the event that thinking and official recommendations around compounding develop subsequent to the agreement being signed. As noted in section 2.3 above, however, the Compounded/Term MTR separately makes provision, in the definition of "Compounding Methodology Supplement', for the mathematical formulae specified in Schedules 14 (Daily Non-Cumulative Compounded RFR Rate) and 15 (Cumulative Compounded RFR Rate) to be amended without a formal amendment process and subject to fewer parameters than set out in Clause 35.4.

Clause 17.4 (Reference rate transition costs) is an optional placeholder, to be completed if the parties wish to specify how any costs associated with amendments or waivers contemplated by Clause 35.4 will be allocated between them. This topic has been the subject of some debate in the context of amendments to LIBOR facilities to replace the reference rate. Lenders are often proceeding on the basis that, as is customary in relation to amendments requested by the Borrower or necessitated by its own circumstances, the Borrower will meet the Lenders' costs as well as its own. Amendments to accommodate replacement reference rates can, however, be distinguished from that situation, being driven by a market-wide change on a timetable which is in turn driven by financial sector regulators rather than Borrowers. In the US, it is interesting to note that the LSTA (the LMA equivalent for the US syndicated loan market) has recommended that Lenders should not be passing the costs of LIBOR transition amendments on to Borrowers.



Appendix to Part II - Compounding formulae

Schedules 14 (Daily Non-Cumulative Compounded RFR Rate) and 15 (Cumulative Compounded RFR Rate) of the Compounded/Term MTR (lookback without observation shift) are reproduced below for reference purposes, with the permission of the LMA.

Schedule 14

Daily Non-Cumulative Compounded RFR Rate

The "**Daily Non-Cumulative Compounded RFR Rate**" for any RFR Banking Day "**i**" during an Interest Period for a Compounded Rate Loan is the percentage rate per annum (without rounding, to the extent reasonably practicable for the Finance Party performing the calculation, taking into account the capabilities of any software used for that purpose) calculated as set out below:

$$(UCCDR_i - UCCDR_{i-1}) \times \frac{dcc}{n_i}$$

where:

"**UCCDRi**" means the Unannualised Cumulative Compounded Daily Rate for that RFR Banking Day "**i**";

"**UCCDRi-1**" means, in relation to that RFR Banking Day "**i**", the Unannualised Cumulative Compounded Daily Rate for the immediately preceding RFR Banking Day (if any) during that Interest Period;

"**dcc**" means 360 or, in any case where market practice in the Relevant Market is to use a different number for quoting the number of days in a year, that number;

"**ni**" means the number of calendar days from, and including, that RFR Banking Day "**i**" up to, but excluding, the following RFR Banking Day; and

the "**Unannualised Cumulative Compounded Daily Rate**" for any RFR Banking Day (the "**Cumulated RFR Banking Day**") during that Interest Period is the result of the below calculation (without rounding, to the extent reasonably practicable for the Finance Party performing the calculation, taking into account the capabilities of any software used for that purpose):

$$ACCDR \times \frac{tn_i}{dcc}$$

where:

"**ACCDR**" means the Annualised Cumulative Compounded Daily Rate for that Cumulated RFR Banking Day;

"**tni**" means the number of calendar days from, and including, the first day of the Cumulation Period to, but excluding, the RFR Banking Day which immediately follows the last day of the Cumulation Period;

"**Cumulation Period**" means the period from, and including, the first RFR Banking Day of that Interest Period to, and including, that Cumulated RFR Banking Day;

"**dcc**" has the meaning given to that term above; and

the "**Annualised Cumulative Compounded Daily Rate**" for that Cumulated RFR Banking Day is the percentage rate per annum (rounded to [ ] decimal places) calculated as set out below:

$$\left[\prod_{i=1}^{d_0}\left(1 + \frac{DailyRate_{i-LP} \times n_i}{dcc}\right) - 1\right] \times \frac{dcc}{tn_i}$$

where:

"**d0**" means the number of RFR Banking Days in the Cumulation Period;

"**Cumulation Period**" has the meaning given to that term above;

"**i**" means a series of whole numbers from one to d0, each representing the relevant RFR Banking Day in chronological order in the Cumulation Period;

"**DailyRatei-LP**" means, for any RFR Banking Day "**i**" in the Cumulation Period, the Daily Rate for the RFR Banking Day which is the applicable Lookback Period prior to that RFR Banking Day "**i**";

"**ni**" means, for any RFR Banking Day "**i**" in the Cumulation Period, the number of calendar days from, and including, that RFR Banking Day "**i**" up to, but excluding, the following RFR Banking Day;

"**dcc**" has the meaning given to that term above; and

"**tni**" has the meaning given to that term above.

Whilst the LMA has consented to the quotation of, and referral to, parts of the Compounded/Term MTR for the purpose of this Guide, it assumes no responsibility for any use to which its documents, or any extract from them, may be put. The views and options expressed in this Guide are the views of Slaughter and May and the ACT and do not necessarily represent those of the LMA. Furthermore, the LMA cannot accept any responsibility or liability for any error or omission.

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Schedule 15

Cumulative Compounded RFR Rate

The "**Cumulative Compounded RFR Rate**" for any Interest Period for a Compounded Rate Loan is the percentage rate per annum (rounded to the same number of decimal places as is specified in the definition of "**Annualised Cumulative Compounded Daily Rate**" in Schedule 14 (Daily Non-Cumulative Compounded RFR Rate)) calculated as set out below:

$$\left[\prod_{i=1}^{d_0}\left(1+\frac{DailyRate_{i-LP}\times n_i}{dcc}\right)-1\right]\times\frac{dcc}{d}$$

where:

"**d0**" means the number of RFR Banking Days during the Interest Period;

"**i**" means a series of whole numbers from one to d0, each representing the relevant RFR Banking Day in chronological order during the Interest Period;

"**DailyRatei-LP**" means for any RFR Banking Day "**i**" during the Interest Period, the Daily Rate for the RFR Banking Day which is the applicable Lookback Period prior to that RFR Banking Day "**i**";

"**ni**" means, for any RFR Banking Day "**i**", the number of calendar days from, and including, that RFR Banking Day "**i**" up to, but excluding, the following RFR Banking Day;

"**dcc**" means 360 or, in any case where market practice in the Relevant Market is to use a different number for quoting the number of days in a year, that number; and

"**d**" means the number of calendar days during that Interest Period.

PART III – FURTHER INFORMATION AND KEY CONTACTS

Further information

Below is a selection of links to further resources on LIBOR transition, which readers may find useful as a supplement to this Guide. Readers should note that there is a wealth of information and materials available on the transition project, and that the list below is not exhaustive.

General

FSB resources

FSB Financial benchmarks webpage

FSB Reforming Major Interest Rate Benchmarks: 2020 Progress Report (November 2020)

FCA resources

FCA Transition from LIBOR webpage

FCA/PRA Dear CEO letter (26 March 2021)

FCA announcement on future cessation and loss of representativeness of the LIBOR benchmarks (5 March 2021)

FCA Q&As on conduct risk during LIBOR transition

FCA webpages on proposed amendments to the Benchmarks Regulation and its new powers, policy and decision-making

Trade associations

ACT LIBOR hub

LMA LIBOR microsite

UK Finance LIBOR transition webpage

ISDA Benchmark Reform and Transition from LIBOR webpage (includes links to the ISDA IBOR Fallbacks Supplement and Protocol)

Data sources

Bloomberg LIBOR Transition webpage

Letter from UK RFRWG to Bloomberg re. use of BISL CAS in sterling cash markets and Bloomberg response (January 2021)

UK RFRWG summary of freely available independent RFR calculators (updated January 2021)

UK RFRWG summary of the key attributes of beta versions of Term SONIA Reference Rates (updated January 2021)

ICE SONIA Indexes webpage

GBP

Useful webpages

UK RFRWG homepage

Bank of England Transition from LIBOR to risk-free rates webpage

Bank of England Key resources for firms transitioning from LIBOR webpage

Bank of England SONIA interest rate benchmark webpage

UK RFRWG statements/publications

UK RFRWG Recommendations for SONIA Loan Market Conventions (September 2020), supporting slides (updated March 2021) and worked examples (updated March 2021)

UK RFRWG Best Practice Guide for GBP Loans (updated March 2021)

UK RFRWG GBP loan market Q&A for the end-Q1 2021 recommended milestone (February 2021)

UK RFRWG roadmap and priorities (updated April 2021)

UK RFRWG paper: Credit adjustment spread methods for active transition of GBP LIBOR-referencing loans (December 2020)

UK RFRWG Recommendation of credit adjustment spread methodology for fallbacks in cash market products referencing GBP LIBOR (September 2020)

UK RFRWG paper: Use cases of benchmark rates: compounded in arrears, term rate and further alternatives (January 2020)

USD

Useful webpages

ARRC homepage

ARRC Transition from LIBOR webpage

Federal Reserve Bank of New York SOFR webpage

ARRC statements/publications

ARRC Supplemental drafting for hardwired fallbacks for loans (March 2021)

ARRC progress report on transition from USD LIBOR (March 2021)

ARRC guide on the endgame for USD LIBOR (December 2020)

ARRC SOFR "in arrears" conventions for use in bilateral business loans (November 2020)

ARRC recommended best practices for completing the transition from LIBOR (updated September 2020)

ARRC recommendations regarding more robust fallback language for new originations of LIBOR bilateral business loans (August 2020)

ARRC SOFR "in arrears" conventions for syndicated business loans (July 2020)

ARRC recommendations regarding more robust fallback language for new originations of LIBOR syndicated loans (June 2020)

ARRC announcement of further details regarding its recommendation of spread adjustments for cash products (June 2020)

EUR

Useful webpages

Working Group on Euro Risk-Free Rates homepage

ECB euro short-term rate (€STR) webpage

Euro Working Group statements/publications

Public consultation on EURIBOR fallback trigger events (November 2020) and summary of responses (February 2021)

Public consultation on €STR-based EURIBOR fallback rates (November 2020) and summary of responses (February 2021)

CHF

The National Working Group on Swiss Franc Reference Rates homepage

JPY

Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks homepage

Key Contacts

Association of Corporate Treasurers

The ACT is the chartered professional body for treasury. We work in the public and the profession's interest to influence policy and ensure decision makers understand the impact of proposed changes to regulation and market practice on non-financial corporates.

The ACT participates in many of the IBOR working groups and has been working closely with regulators, fellow trade associations and benchmark providers to ensure that the needs of the corporate sector and the real economy are not overlooked in the transition from LIBOR.

We welcome input from members on all aspects of LIBOR transition by e-mail to technical@treasurers.org

Further information about the ACT is available at www.treasurers.org

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Slaughter and May

Slaughter and May is a leading international law firm that advises on a wide range of often ground-breaking transactions and has a varied client list that includes major corporations, financial institutions and governments.

Our team has been actively involved since inception in a number of the London-based regulatory and industry-led working groups looking at aspects of LIBOR transition. We have been involved in the development of much of the template documentation that has been prepared for the purposes of transitioning English law products from LIBOR.

We are advising many borrower and issuer clients on the current options for floating rate products. As long-standing advisers to the ACT, we are supporting its work with corporate treasurers in this area, including its outreach and information gathering projects.

Further information about Slaughter and May is available at www.slaughterandmay.com.

Contact details for the full Slaughter and May LIBOR transition Working Group are available on our LIBOR transition webpage.

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