Use Cases of Benchmark Rates: Compounded in Arrears, Term Rate and Further Alternatives

The Working Group on Sterling Risk-Free Reference Rates

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Contents

Foreword

The overall objective of the Working Group on Sterling Risk-Free Reference Rates (the "**Working Group**") is to enable a broad-based transition to the Sterling Overnight Index Average ("**SONIA**") by the end of 2021 across the sterling bond, loan and derivative markets. This will reduce the financial stability risks arising from widespread reliance on GBP LIBOR. As part of this work, the Working Group consulted on Term SONIA Reference Rates ("**TSRR**") in 2018.[1] Following this, the Working Group recommended the need for a forward-looking term rate for some participants in the cash markets and to support the transition of certain legacy contracts.[2]

The prevailing view of the Working Group is that 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.[3] 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.

In this context, a new Term Rate Use Case Task Force (the "**Task Force**") was formed to identify where the usage of SONIA compounded in arrears is appropriate and provide guidance where the usage of alternative approaches, such as a TSRR, may be necessary. Although a sterling TSRR does not exist today, administrators are working on the development of an IOSCO-compliant TSRR, and it is expected that TSRRs will be published in Q1 2020 for a period of observation.

This paper (the "**Working Paper**") considers the use of SONIA by market participants. In particular, it:

- outlines why the use of TSRR must be limited
- considers use cases within cash markets where a TSRR would be beneficial and where overnight SONIA compounding in arrears is likely appropriate, taking into consideration:
    - the operational capability and the sophistication of the borrower
    - the structure and characteristics of a product and its use

It is addressed to financial firms and non-financial end users, such as corporates, small to medium size enterprises (SMEs), retail consumers and others, who will be impacted by the intended cessation of GBP LIBOR.

This Working Paper was considered by the Working Group on 5 December 2019 which agreed to its publication. The Working Group is particularly grateful to the Use Case Task Force, for having developed this Working Paper.

The Bank of England and the Financial Conduct Authority ("**FCA**") are each ex-officio members of the Working Group. The views and outputs set out in this Working Paper do not constitute guidance or legal advice from the Bank of England (including the Prudential Regulation Authority ("**PRA**")) or the FCA and are not necessarily endorsed by the Bank of England (including the PRA) or the FCA.

[1] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/consultation-on-term-sonia-reference-rates
[2] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/term-sonia-reference-rates-consultation-summary-of-responses.pdf
[3] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/statement-on-the-progress-on-adoption-of-risk-free-rates-in-sterling-markets.pdf

Executive summary

The Working Group on Sterling Risk-Free Reference Rates set up a Term Rate Use Case Task Force (the "**Task Force"**) to provide guidance on the need for and potential usage of Term SONIA Reference Rates (**"TSRR"**), if available, alongside SONIA compounded in arrears, across different client segments. The Task Force consisted of banks, non-banks and trade associations (ACT, LMA, ICMA, UK Finance) in order to analyse the broad range of products in the cash market that use LIBOR today. For each segment the Task Force considered both the client and operational suitability, with results where possible validated with representative clients and trade bodies representing those segments.

The Task Force considered that use of SONIA compounded in arrears was appropriate and is likely operationally achievable for approximately 90% by value of the Sterling Libor loan market sampled and that the remaining 10% by total loan value would likely require alternative rates. The 10% requiring alternative rates consists primarily of lower value loans to a wide range of smaller borrowers and therefore accounts for a somewhat greater proportion when measured by borrower numbers rather than total loan values. These proportions are based on estimates from members of the Task Force that have been collected using an anonymous survey by the RFR Secretariat.

Current users of SONIA compounded in arrears include larger and more sophisticated corporates and specialist lending sectors. Smaller corporate and retail clients for whom simplicity and/or payment certainty is a key factor may wish to consider alternative rates such as a fixed rate, the Bank of England's Bank Rate (the "**Bank Rate**", which is an overnight rate), or a SONIA term rate, if available.

To continue with the current market practice**,** alternative rates should also be considered for trade and working capital, which use discounted cash flows and therefore require a forward-looking term rate with the ability to interpolate mid period dates, and Islamic finance which can pay variable rates of return so long as the variable element is pre-determined.

Consistent with the view of the RFRWG, the UK authorities have made clear their preference for the market to adopt a broad-based transition to SONIA compounded in arrears for new transactions, with use of a TSRR being more limited than the current use of LIBOR[4]. This Working Paper has provided further clarity on the potential usage of a TSRR going forward and also why compounding in arrears is likely to be preferred for most types of new business.

[4] https://www.fca.org.uk/news/speeches/libor-preparing-end

Progress in LIBOR transition and necessary next steps in loan markets

In April 2017, the Working Group recommended the SONIA benchmark as their preferred risk-free rate (RFR). Since then, the Working Group has focussed on supporting transition away from LIBOR across sterling markets.

SONIA compounded in arrears has been traded in the derivatives market for over 20 years, with interest calculation and payment conventions well established. Market participants using derivative markets to hedge or take positions will want access to the most liquid markets. Market liquidity in derivatives is expected to shift further from LIBOR to SONIA in 2020, such that it becomes the most common benchmark for GBP derivatives. The FCA and the Bank of England encourage market makers to change the market convention for sterling interest rate swaps from LIBOR to SONIA in Q1 2020. This change is intended to move the greater part of new sterling swaps trading to SONIA and reduce the risks from creating new LIBOR exposures and is also reflected in the timeline set out by the Working Group. Following FCA discussions with market makers, the authorities have identified 2 March 2020 as an appropriate date for this change to happen.

In the cash market, overnight SONIA compounded in arrears has become the market norm for floating rate sterling bonds and there is strong liquidity developing for securitisations that reference overnight SONIA compounding in arrears.

Loan markets have been slower to progress. Loans referencing overnight SONIA compounded in arrears have been extended to corporate borrowers, demonstrating proof of concept and that borrowers are capable of adapting to this new rate. These initial loans have been offered under pilot schemes by banks while the necessary infrastructure to support broad usage of compounded in arrears SONIA products are completed.

Barriers to widespread use of loans referencing overnight SONIA compounded in arrears and ending reliance on LIBOR exist, but work is underway to address these barriers. Specifically:

- Loan IT system providers are updating their systems to make them compatible with overnight SONIA compounded in arrears
- Treasury management system providers are undertaking a similar exercise to ensure that corporates can manage their cash flows accordingly
- The Loan Market Association (LMA) and market participants have developed standardised documentation to help facilitate syndicated lending and club loans
- Market conventions for calculating interest payments are being established through the execution of new SONIA loans and
- The development of alternative products to meet the needs of clients who prefer variable rates that provide cash flow certainty. These products can be developed using already available rates, such as the overnight Bank Rate (which SONIA closely tracks). However, some market participants have indicated they would like to offer products referencing the Term SONIA Reference Rate that is still being developed.

The Working Group has set a target of end Q3 2020, to cease issuance of GBP LIBOR-based cash products that mature beyond end-2021. Due to the expected decline in the liquidity in Libor based derivatives, a potential risk that firms and borrowers may wish to consider is that offering Libor based loans may include an increased risk in cost of hedging.[5]

Market participants in the loan market are continuing to work towards addressing the barriers to facilitate and encourage transition towards SONIA in order to meet this target. Market infrastructure - including conventions, deal booking and settlement systems - are expected to be made available before Q3 2020 to enable SONIA compounded in arrears lending at scale. The use of a TSRR will only be appropriate for those products where operational necessity precludes the use of a compounded in arrears product, another existing available rate or where the client has very simple needs (e.g. does not use derivative products).

[5] For further details please see: https://www.fca.org.uk/news/speeches/next-steps-transition-libor

Use of Term SONIA Reference Rate (TSRR)

In December 2018, the Working Group published a statement inviting interested benchmark administrators to consider responses to the TSRR consultation.[6]

The development of a TSRR is progressing well. Four administrators (FTSE Russell, ICE Benchmark Administration, Refinitiv and IHS Markit) have confirmed they are working on the development of a TSRR and have presented their plans to the Working Group. There are methodological differences across the four administrators, meaning that the rates produced are likely to be marginally different.

All four are current authorised benchmark administrators and expect to produce IOSCO compliant rates. The methodologies rely on some combination of actual OIS trade data, tradable quotes provided by market makers and OIS futures data. The FCA has confirmed that sufficient OIS market makers have given in principle agreement to provide quotes to support the production of a TSRR.

Timing

It is expected that TSRRs will be published in Q1 2020 for a period of observation so that market participants can understand the nature and behaviour of the rates before they are used in products. Subject to success it is hoped that TSRRs will be made available later in 2020 for use in products and to enable transition of legacy products, where appropriate. The Task Force has suggested that TSRRs should be made available before the Q3 2020 date to support market participants that would require alternative rates.

Limiting Usage of a SONIA TSRR

The use of a SONIA TSRR will be limited. The UK authorities have made clear their preference for the market to adopt a broad-based transition to SONIA compounded in arrears, with use of a TSRR being limited. The Working Group and Task Force members are also supportive of these objectives.

SONIA compounded in arrears is expected to be the primary vehicle for LIBOR transition. The main benefits of SONIA compounded in arrears is that:

- It is inherently more robust than the prospective TSRR. For example, a three-month compounded SONIA contract is built on overnight market transactions worth on average ~£42 billion per day. Over 60 trading days (the number of trading days in 3 months), this means that ~£2.65 trillion of transactions underlie three-month compounded SONIA. This market is currently 13 times the volume of transactions in the SONIA OIS markets on an average day.
- Participants with hedging needs will want cash products to be on the same basis as derivatives to ensure effective and cost-efficient hedging.
- It can be used consistently across multiple markets, including derivatives, bonds, and securitisation markets, allowing users to have consistent and reliable costs of borrowing.
- While compound in arrears rates will be available in all currencies where an RFR rate is available, term rates may not be made available in all currencies. Using compounding in arrears therefore supports multi-currency borrowers to apply a consistent approach where possible.

SONIA compounded in arrears will need to be the primary vehicle for LIBOR transition for new deals because, if use of a TSRR became widespread, there is a risk of reintroducing structural vulnerabilities similar to those associated with LIBOR.[7] These risks can be avoided by limiting the use of TSRRs to certain product use cases and certain borrowers, as these vulnerabilities do not apply in the much more liquid overnight markets.

For these reasons, the Task Force has considered where SONIA compounded in arrears and TSRRs are suitable and appropriate for different product markets and different users, together with alternative options such as the overnight Bank Rate or fixed rate for clients or specific products which may struggle to adapt to compound in arrears rates over time.

[6] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/libor-transition-and-development-of-a-term-rate-based-on-sonia.pdf

[7] While several hundred $trillion worth of financial contracts reference LIBOR, the underlying market determining the rate was comparatively smaller

Approach

To consider these issues, the Task Force sought the views of its members. The membership of the Task Force includes the largest lending institutions in the UK and relevant product and client aligned trade associations to ensure the broadest view of potential use cases. The Task Force also engaged externally with sector specific trade associations (e.g. social housing, local councils) and clients to validate its findings.

<u>Assessment Criteria</u>

The Task Force identified the following factors in determining whether a TSRR was necessary and appropriate for certain product use cases and client types:

- the structure and characteristics of a product
- the operational capability and the sophistication of the borrower or end-user

<u>Segmenting the market</u>

The group approach taken was to segment the market by product and client type, assessing both client and operational suitability. In segmenting by client, the Task Force considered both the size and sophistication of the client and, where there were specific differences in the product, also the size and sophistication of the sector, so segregating project finance, real estate and public sector borrowings.

Products	Client Breakdown	Details	Definition
Bonds/ Loans/ Trade	Large Corporate/ Leverage	Sponsor/ Leverage Large Corporate	Corporate deals/ Sponsor lead acquisitions/ recapitalisations with a deal size £25m
Loans/ Trade	Mid to Large Corporate/ Specialist Finance	Financial Institutions	Banks, insurance providers, asset managers, funds, hedge funds and broker dealers
		Mid to Large Corporates	Annualised revenue >£25m and deal size £10-£25m.
		Social Housing	Lending to Social Housing firms
		Education/ Local Authority	Lending to schools/ Higher Education/ Local Authorities
		Project Finance	Financing of a major independent capital investment
		Real Estate	Commercial Real Estate firms
	Export Finance/ Emerging Market	Export Finance	Funding to outsized capital expenditure with export finance guarantee
		Emerging Markets	Lending to emerging markets
	Mid Corporate/ Private Banking & Retail	Mid Corp	Annualised revenue >£6.5m and <£25m. Excludes specialised lending
		Small, Micro Size Enterprise	Annualised revenue <£6.6m
		Retail Mortgages	Retail clients
		Wealth/ Private Bank	Offers Banking and affluent clients, families and fiduciaries based in the UK, offshore or emerging markets
Product Exception	Trade & Working Capital	Trade & Working Capital	All Trade & Working Capital products including discounting/ Letters of credit, supply chain finance etc
	Islamic Finance	Islamic Finance	Islamic facilities forbid interest payments on loans

Each Task Force member was asked to anonymously classify the client and product suitability for their institution, based on a defined scale, and also the number of clients and total value of loans per bucket, and submit data to the RFR Secretariat. The aggregated and anonymised results were reviewed by the Task Force for accuracy and then validated with clients and sector specific trade associations through face to face meetings where possible (see appendix 1).

The Association of Corporate Treasurers (ACT) represented client perspectives within the Task Force and alongside UK Finance helped to validate the findings with sector specific trade associations and representative clients.

Product Categorisation

In considering appropriate product use cases for TSRRs to replace GBP LIBOR, the Task Force segregated products into three broad categories: derivatives; bonds; loans and other cash products.

Derivatives

As discussed, the derivatives market has used overnight SONIA compounding in arrears for over 20 years. This market has functioned well and liquidity in SONIA derivatives markets has continued to build with approximately 50% by value of Sterling derivatives traded now referencing SONIA.

The UK authorities have also been clear that because derivatives represent a particularly large exposure to certain IBORs, these markets need to be built on the more robust overnight RFRs to ensure financial stability.[8] Furthermore, the prospective RFR-derived TSRRs can only be robustly created if OIS derivatives markets are highly liquid because they are the predominant market for most derivatives. So, robust liquidity in SONIA derivatives is important to maintain the resilience of these markets and to ensure financial stability.

For these reasons, this Working Paper does not consider derivatives, limiting its assessment to cash products.

Bonds

Bond issuance, including securitisation, was initially seen as a potential use case for a TSRR. However, this market has demonstrably adopted overnight SONIA compounded in arrears for all new GBP issuance over the last year.

Loans and other cash products

Loans and other cash products are seen as the primary markets that may benefit from a TSRR. The Task Force therefore considered various use cases in the loans market, including other specialist areas such as trade and working capital, Islamic finance and asset finance.

[8] https://www.fsb.org/wp-content/uploads/P120718.pdf

Findings

The Task Force considered that use of SONIA compounded in arrears was appropriate and is likely operationally achievable for approximately 90% of new loan deals by value and that alternative rates would likely be required for 10% of new loan deals by value based on the anonymous survey carried out by the Task Force.

Areas that can use SONIA compounding in arrears

More sophisticated borrowers are capable of borrowing in markets linked to overnight SONIA compounded in arrears and are, in nearly all cases, likely capable of understanding the benefits, risks, and potential costs associated with this rate and adapting systems and procedures over time.

This includes larger and more sophisticated corporates and the specialist lending sectors such as project finance, real estate and public sector who are likely to make use of a range of financial products, so will require alignment between cash and derivative products to ensure effective and efficient hedging.

Areas requiring an Alternative Rate

Smaller corporate, wealth and retail clients, for whom simplicity and/or payment certainty is a key factor, may wish to consider alternative rates. Small corporates and small to medium size enterprises (SMEs) typically have no dedicated treasury function and are less likely to be able to adapt to the technology or process changes needed, or are more likely to be prohibited by the cost of adoption to accommodate SONIA compounded in arrears.

Where simplicity or payment certainty is the key factor, fixed rates, or the overnight Bank Rate may be preferred. There may, however, be some instances where a forward-looking term rate is a good fit with business needs.

The Task Force also found a number of products where the use of SONIA compounded in arrears will likely create operational difficulty regardless of the sophistication of the borrower. These products are mainly in USD and therefore require a cross currency solution, but there are deals with a GBP component.

Trade & Working Capital

Trade and working capital products such as supply chain finance and receivable facilities require a term rate or equivalent to calculate forward discounted cash flows to price the value of assets into the future (see appendix 2). The product requires a rate that is transparent and observable to all parties. Clients typically do not have access to live market curves, which may be available in a dealing room.

Export Finance/ Emerging Markets

Export finance and emerging market loan clients typically require much more time to make payments of interest and principal payments, sometimes in excess of 30 days, so need a term rate or equivalent rate to help determine interest payments out into the future.

Islamic Facilities

Islamic facilities can pay variable rates of return, so long as the variable element is pre-determined.

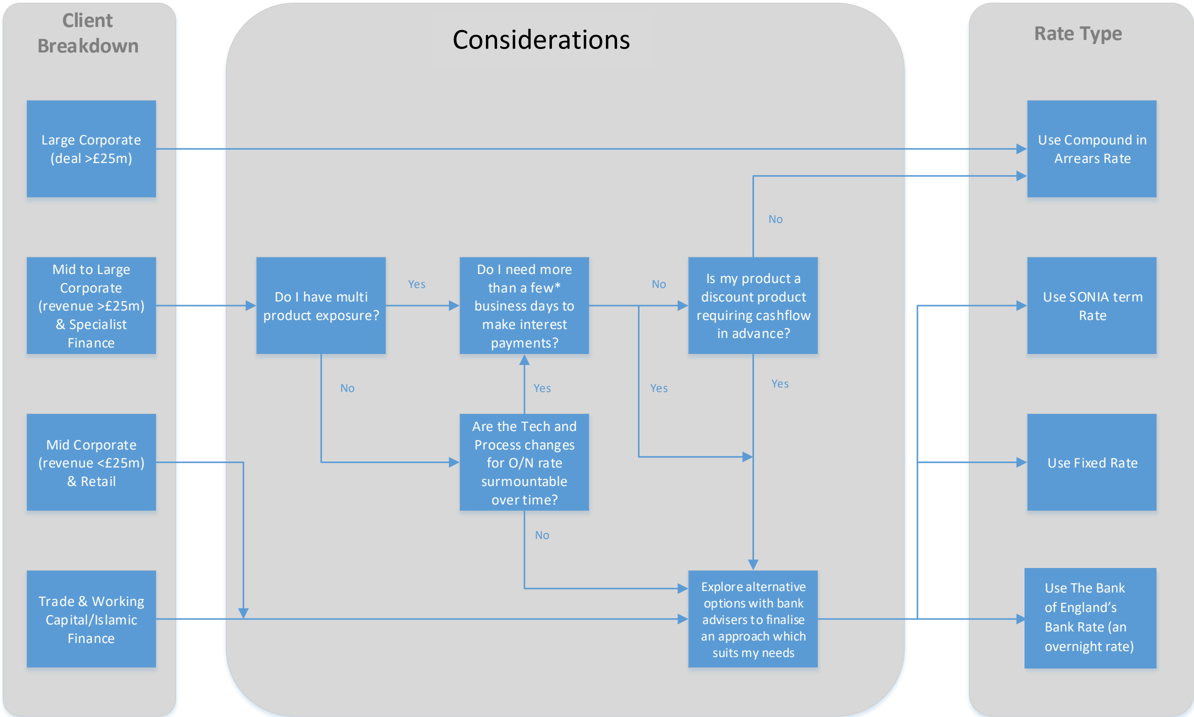
Legacy Contracts

Clients should consult with their banks and advisors as to whether to switch their existing contracts to SONIA compounded in arrears, or to one of the alternative rates. As mentioned, overnight SONIA compounding in arrears has become the market norm for floating rate sterling bonds, and there is strong liquidity developing for securitisations that reference overnight SONIA compounding in arrears. Therefore, where possible, parties are encouraged to transition to overnight SONIA compounded in arrears. However, a TSRR may be useful in calculating fair replacement rates for legacy LIBOR contracts that cannot easily be amended to overnight rates compounded in arrears, or for deals with a limited period to maturity where it would not be cost effective to transition from GBP LIBOR to SONIA compounded in arrears.

Products	Client Breakdown	Details	Definition	Balance %	Recommended Rate
Bonds/ Loans/ Trade	Large Corporate/ Leverage	Sponsor/ Leverage Large Corporate	Corporate deals/ Sponsor lead acquisitions/ recapitalisations with a deal size £25m	50%	Compounded in Arrears
Loans/ Trade	Mid to Large Corporate/ Specialist Finance	Financial Institutions	Banks, insurance providers, asset managers, funds, hedge funds and broker dealers	40%	
		Mid to Large Corporates	Annualised revenue >£25m and deal size £10-£25m.		Compounded in Arrears
		Social Housing	Lending to Social Housing firms		Compounded in Arrears
		Education/ Local Authority	Lending to schools/ Higher Education/ Local Authorities		
		Project Finance	Financing of a major independent capital investment		
		Real Estate	Commercial Real Estate firms		
	Export Finance/ Emerging Market	Export Finance	Funding to outsized capital expenditure with export finance guarantee	10%	Term/ Alternative Rate
		Emerging Markets	Lending to emerging markets		
	Mid Corporate/ Private Banking & Retail	Mid Corp	Annualised revenue >£6.5m and <£25m. Excludes specialised lending		Term/ Alternative Rate
		Small, Micro Size Enterprise	Annualised revenue <£6.6m		
		Retail Mortgages	Retail clients		
		Wealth/ Private Bank	Offers Banking and affluent clients, families and fiduciaries based in the UK, offshore or emerging markets		
Product Exception	Trade & Working Capital	Trade & Working Capital	All Trade & Working Capital products including discounting/ Letters of credit, supply chain finance etc		
	Islamic Finance	Islamic Finance	Islamic facilities forbid interest payments on loans		

Decision Tree Model to determine SONIA Compound in Arrears vs TSRR usage

The need for an alternative to SONIA compounded in arrears can be driven by product type or by client capability. Client needs are likely to vary across the market so it is not appropriate to be prescriptive on the use of compounded in arrears SONIA or alternative rates for each and every case. The Task Force has developed a decision tree to assist clients when considering which rate to use as a replacement for LIBOR. The initial premise should be to use compounded in arrears SONIA where possible.



***SONIA compounded in arrears – Lag**

All SONIA bond issuance and loan transactions to date have used a 5 day lag, to provide a window at the end of the interest period for calculating, agreeing and reconciling the SONIA rate, interest amounts and making the actual payment on the due date. The decision tree assumes the number of lag days could be varied on client or system needs, but any variance in market standard could lead to lower liquidity and increased costs. Where clients require lags of over 10 days, clients should discuss this with their banks and advisers to see whether a compounded in arrears rate remains appropriate or whether an alternative rate should be used.

Further work

The Task Force highlighted a number of other observations, which should be considered to enable effective transition from GBP LIBOR.

Client engagement

Larger corporate clients are generally aware of LIBOR reform. They understand the current risks around LIBOR and that SONIA compounded in arrears is likely to be the best solution to enable effective economic hedging across a range of products at a lower cost than using other rate alternatives going forward.

The FCA has recently published a set of Questions and Answers (Q&As) to provide clarity on its conduct expectations of firms during the transition away from LIBOR.[9] Through these Q&As, the FCA communicated that firms should be engaging with their clients to raise awareness and provide education on the general implications and timing of LIBOR transition for new and existing contracts.

Therefore, engagement with corporate clients is expected to increase in 2020, but transition away from LIBOR will require:

- Banks to offer products linked to a suitable alternative rate
- Further clarity on market conventions[10]
- For multi-currency loan clients, greater certainty on the long term solution for other currencies (notably EUR and USD)
- Infrastructure changes to Treasury systems.

Once a corporate is aware of the transition, one of the major internal challenges in transitioning to RFRs is the ability of Treasury and Finance teams to explain the changes and impacts to their boards and shareholders. Industry driven materials could help to facilitate this education process.

Below the level of large corporates, specialist lending firms and smaller corporates have much less awareness of transition and the required education effort here is much greater. To accelerate transition, further education and awareness is required early in 2020. A free to use, trusted RFR calculator would also help to accelerate transition by providing confidence to validate bank calculations.

The Communication and Outreach subgroup is considering ways to increase client awareness and engagement across this part of the market.

For additional help and support, the Task Force recommends that clients engage with their banks, advisors and representative trade associations. To provide feedback on this Working Paper, borrowers should contact their representative trade association who can share feedback with the RFRWG and the UK authorities.

Tools and resources to improve client understanding of how products function

Smaller institutions and SMEs consider that the availability of a free to use tool from a trusted source to publish SONIA rates and calculate interest would greatly assist LIBOR transition. The Infrastructure Sub-Group is considering how such a tool might be developed and made available.

Clients may also benefit from a user guide comparing the various different alternatives to compounded in arrears SONIA (e.g. overnight Bank Rate, Fixed Rate, TSRR). The Communication and Outreach subgroup is considering constructing a user guide.

[9] https://www.fca.org.uk/markets/libor/conduct-risk-during-libor-transition
[10] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/statement-and-summary-of-responses-to-sonia-conventions-discussion-paper.pdf

Addressing remaining barriers to transition in loan markets

The Working Group has established the Sub-group Benchmark Transition Issues in Syndicated Loan Markets and the Loans Enabler Task Force to address remaining barriers to transition in loan markets, in relation to:

- Standardised loan documentation
- Additional considerations for Project Finance and Real Estate deals
- Loan IT systems
- Treasury management systems
- Trade booking and settle systems, and

It is intended that these barriers will be addressed so that loan products can be made available at scale before the end Q3 2020.

Appendix 1: Engagement with Trade Associations & Clients

The Working Group is particularly grateful to the following Trade Associations and organisations who provided feedback on the works findings.

Product	Client Breakdown	Details	Trade Body/ Engagement
Bonds/ Loans/ Trade	Large Corporate/ Leverage	Sponsor/ Leverage Large Corporate	Association of Corporate Treasurers
Loans/ Trade	Mid to Large Corporate/ Specialist Finance	Mid to Large Corporates	
		Social Housing	National Housing Federation, Homes England, Community Housing Cymru, Northern Ireland Federation of Housing Associations
		Education/ Local Authority	British Universities Finance Directors Group/ Chartered Institute of Public Finance & Accountancy
		Project Finance	Bank Specialist Businesses
		Real Estate	
	Mid Corporate	Mid Corp	UK Finance
Product Exception	Trade Discounting	Trade & Working Capital	Bank specialist businesses

Appendix 2: Trade & Working Capital Considerations

	Supply Chain Finance	Receivables Finance	Documentary Trade
Product Definitions	• A bank accepts future dated payment instructions from the client to their suppliers. • A bank offers supplier the option to receive amount early, at a discount. • A bank collects the full value of the payment from the client on the original payment date. • A bank takes non payment risk against its client.	• A bank purchases client's invoices / receivables at a discount. • May be a single asset purchase or part of a portfolio of debtors/assets. • Client collects from the debtors and pays the full value to the bank. • In the event of non payment, the bank claims directly against the debtor	• Client requests a bank to issue a letter of credit / guarantee in favour of its supplier, ensuring future payment to obtain goods today. • Client might also be the beneficiary of a letter of credit issued by a bank. • Supplier or client may request discounted early payment. • Other discountable products include promissory notes, bills of exchange.
Calculation Methodology	$\text{Discount} = \frac{\text{Value x (tenor applicable LIBOR* + Margin)}}{365} \text{ X Tenor}$ * Tenor applicable LIBOR based on segmented time periods (1W, 1M, 3M, 6M etc.)	$\text{Discount} = \frac{\text{Value x (tenor interpolated LIBOR* + Margin)}}{\text{Adjustment factor**}} \text{ X Tenor}$ * Tenor Interpolated LIBOR primarily 30-90 days ** $\text{NPV adjustment factor} = \frac{\text{All in rate x tenor}}{365} + 1$	$\text{Discount} = \frac{\text{Value x (tenor interpolated LIBOR* + Margin)}}{\text{Adjustment factor**}} \text{ X Tenor}$ * Tenor Interpolated LIBOR primarily 30-180 days ** $\text{NPV Adjustment factor} = \frac{\text{All in rate x tenor}}{365} + 1$
Need for a Term Rate	• The pricing for these products is **based on a discounting principle** which, in effect, is a bank buying assets for a pre-agreed price based on a term rate. It is important to note these products have direct links to providing finance to the real economy. • Currently, term reference rates are **transparent and observable**, updated and published daily. The benchmark is used as a starting reference in trade finance products to agree an upfront discounted cash flow, usually plus margin, for an agreed period. • Tenor interpolation, and therefore forward looking term rates, are essential as quoted overnight rates alone (e.g. O/N LIBOR and Sonia) would be insufficient for this purpose. Similarly this applies when considering Bank Rate as a potential alternative.		