



LIBOR transition

Setting your firm up for success

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**REGULATORY
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Contents

1. Executive summary	1
2. Introduction	3
3. Step 1: Mobilise a cross-business unit and geography transition programme with C-level sponsorship	5
4. Step 2: Set out a transition roadmap	9
5. Step 3: Identify the risks and implement mitigants early	12
6. Conclusion	17
Appendix A: Overview of the RFRs across jurisdictions	18
Appendix B: Market events	19
Endnotes	20
Contacts	22

1. Executive summary

Regulators globally have signalled clearly that firms should transition away from the London Interbank Offered Rate (LIBOR) to alternative overnight risk-free rates (RFRs).¹

LIBOR underpins contracts affecting banks, asset managers, insurers and corporates estimated at \$350 trillion globally on a gross notional basis.² This figure underscores the extent to which market participants rely on LIBOR and demonstrates that a sudden and disorderly discontinuation of the rate could give rise to systemic risk. The rate is so embedded in the day-to-day activities of providers and users of financial services, both unregulated and regulated, that even identifying a firm's exposures to it – which is just one element of what is needed to transition from it successfully – is a highly complex task. Against this background, many market participants have already embarked on transition programmes, but, as some regulators have pointed out, the pace of transition is not yet fast enough.³ This in part is because of the absence of any formal regulatory or legal mandate. It is vital that Boards take action now to avoid reputational, legal and commercial risk later.

Given the degree of uncertainty and complexity, LIBOR transition is likely to be one of the (if not the) biggest transformation programmes many firms have undertaken.

"The discontinuation of LIBOR should not be considered a remote probability 'black swan' event. Firms should treat it as something that will happen and which they must be prepared for. Ensuring that the transition from LIBOR to alternative interest rate benchmarks is orderly will contribute to financial stability. Misplaced confidence in LIBOR's survival will do the opposite."

Andrew Bailey, Chief Executive, Financial Conduct Authority (FCA), July 2018⁴

The purpose of this paper

This paper is intended primarily for all types of financial services firms. However, many of the points set out are also relevant to corporates and other end-users of LIBOR products. This paper is designed to help Board members and executives understand what is needed to drive transition.

Boards should consider the following three steps for setting up a LIBOR transition programme:

1. Mobilise a cross-business unit and geography transition programme with C-level sponsorship

- Given the degree of uncertainty and complexity, LIBOR transition is likely to be one of the (if not the) biggest transformation programmes many firms have undertaken. Boards should establish a coordinated, centralised and senior Steering Committee (SteerCo) to manage and oversee it. Appointing a senior manager to oversee and take accountability for the programme is imperative for firms globally, but UK regulators have specifically asked some firms to do this.

- Firms need to clarify the individual accountabilities for the SteerCo and other programme stakeholders from the outset. In addition to accountabilities for the transition outcomes and activities, this should include accountabilities for decision making; for example, decisions on the timing of new product launches, or when to engage and transition specific customers.

2. Set out a transition roadmap

- LIBOR transition programmes should include the following key blocks of activity: (i) identifying financial exposures and defining the approach to transition; (ii) launching RFR-linked products and building RFR volumes; (iii) transitioning the back book/legacy trades; and (iv) switching off LIBOR processes and infrastructure.
- Identifying key market and regulatory developments and associated milestones (for example, the identification of term RFRs and developments concerning fallback language), and continuing to track these, is crucial. It may not be possible to take certain decisions or actions until specific developments occur, which will affect the pace of transition.

3. Identify the risks and implement mitigants early

- There are significant risks for LIBOR transition that the Board should be confident are being addressed. An early activity is to agree the mitigants to these risks and, subsequently, ensure that the effectiveness of the mitigants is reported to the Board. Delivery risks include: (i) the creation of "winners and losers" which may result in reputational damage and claims by clients for redress; (ii) clients' unwillingness to transition, which may result in LIBOR exposures continuing to grow; and (iii) the effects on financial performance which may result in shortfalls against financial plans.

A more imminent deadline of which Boards should be aware

Outstanding derivative instruments referencing the Euro Overnight Index Average (EONIA) and the Euro Interbank Offered Rate (Euribor) are valued at approximately €22 trillion and €109 trillion, respectively.⁵ These benchmarks are not currently compliant with the European Benchmarks Regulation (EU BMR). Compliance will no longer be sought for EONIA and there is uncertainty regarding the future of Euribor.⁶ Without compliance, from 1 January 2020 onwards, firms will no longer be able to use EONIA or Euribor for new contracts in accordance with the EU BMR. It is still uncertain whether they will be able to use these benchmarks for legacy trades.⁷ There is also a question as to whether some flexibility may be offered in respect of this deadline – the working group on euro RFRs has discussed the merits of extending the deadline.⁸ But, for the time being, firms should plan for a 1 January 2020 cut-off. The Euro Short Term Rate (ESTER), which will replace EUR LIBOR, EONIA and Euribor (or will run alongside Euribor), was confirmed as the RFR for the euro in September 2018.⁹



2. Introduction

"Since the financial crisis, Libor really has become the rate at which banks don't lend to each other."

Mark Carney, Governor, Bank of England, May 2018¹⁰

How did we get here?

Benchmark transition has been on the global agenda since 2014,¹¹ but in July 2017, Andrew Bailey announced that by the end of 2021, the FCA would no longer seek to compel or persuade panel banks to submit quotes for LIBOR, making clear that reliance on LIBOR could no longer be assured beyond this date. LIBOR is a benchmark which is regulated and administered in the UK but used globally. Any discontinuation of LIBOR will therefore have a global impact.

What now?

2018 has seen regulators turning up the pressure by stating that firms should treat the discontinuation of LIBOR as a certainty and that progress has not yet been fast enough.¹² In the UK, a joint "Dear CEO" letter from the UK Prudential Regulation Authority (PRA) and the FCA, was sent to large banks and insurers in September, requiring Boards to sign-off on a comprehensive risk assessment of LIBOR transition in respect of their firms.¹³ Swiss regulators have also been proactive in reaching out to firms. Further afield, US regulators are holding bilateral discussions with firms, and the Bank of Canada has called on financial institutions to consider their "readiness" for benchmark reform.¹⁴

We anticipate that regulatory and supervisory scrutiny will grow across jurisdictions, with focused intervention in areas where progress is not happening fast enough. Boards should expect questions regarding their timelines, governance plans, assessment of financial exposures and conduct risks. While initial enquiries might require general responses, firms should expect regulators' enquiries to become more focused and/or detailed; they should also expect regulators to ask for accurate quantitative analysis.

A further development which may complicate timelines is the risk that the UK exits the European Union with "no deal" in March 2019. LIBOR is currently authorised under the EU BMR. However, in a no deal scenario where the UK is deemed a third country with no equivalence, LIBOR could become a third-country benchmark for the purposes of the EU BMR. In these circumstances, and in the absence of equivalence, the administrator of LIBOR would need to re-apply under the recognition or endorsement options within the Regulation, before 1 January 2020 when transitional provisions under the EU BMR expire. Otherwise, EU-supervised entities could be prohibited from using LIBOR. This paper does not deal with this issue, but it is highlighted here as something that firms should monitor and of which they should be aware.

What's the problem with LIBOR, and why is transition difficult?

- *Authorities are concerned about the scarcity of underlying transactions.* Without sufficient transaction data, LIBOR submissions must rely on expert judgement; this heightens the risk of benchmark manipulation. It is not just the official sector that is concerned. Panel banks have expressed discomfort about providing submissions "based on judgements with little actual borrowing activity against which to validate their judgements" and, as a result, the FCA has "spent a lot of time persuading panel banks to continue submitting to LIBOR".¹⁵
- *LIBOR is widely used and the value of outstanding contracts is huge.* For example, it is estimated that contracts referencing USD LIBOR are valued at \$200 trillion, with the vast majority linked to derivatives. Retail mortgage contracts which reference USD LIBOR are valued at \$1.2 trillion, with 57% maturing by the end of 2021.¹⁶ Contracts maturing beyond this date should be revised by incorporating fallback provisions, or transitioning to a new RFR.

What's the problem with LIBOR and why is transition difficult? Continued

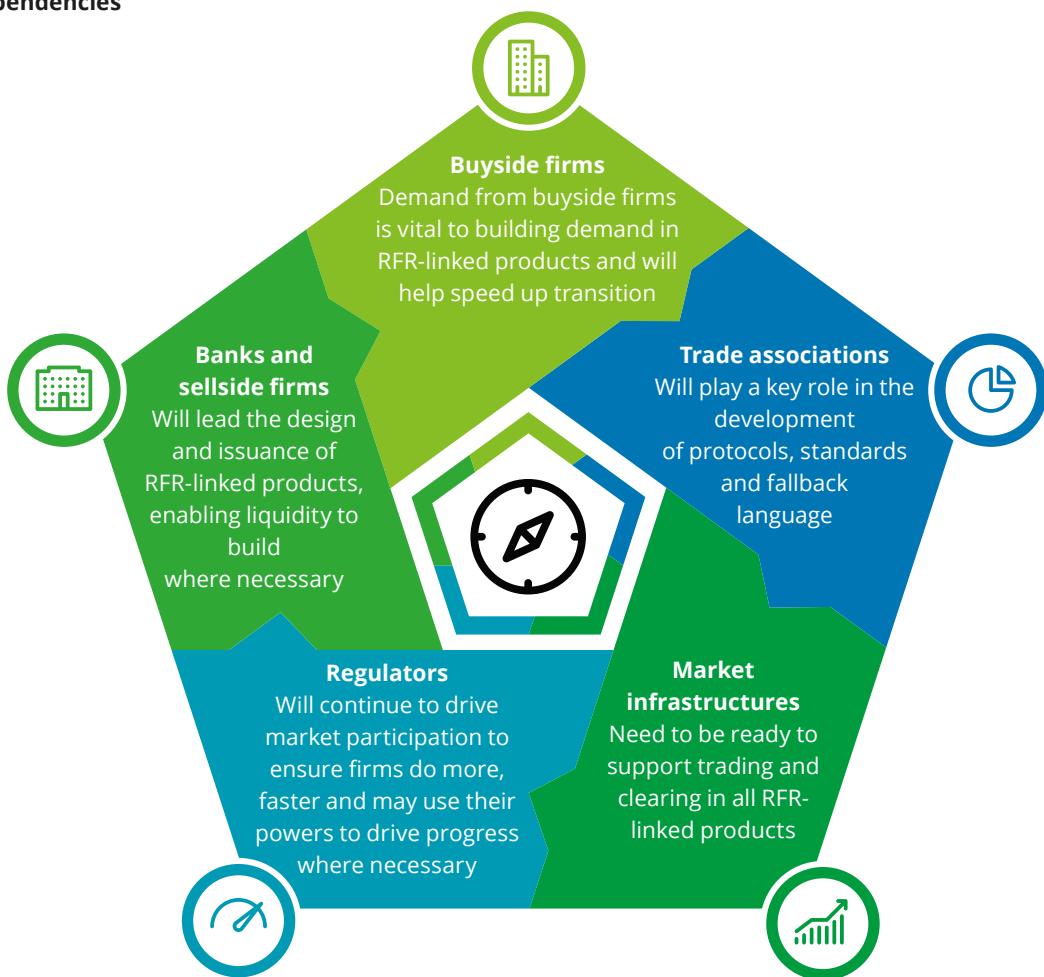
- RFRs are constructed differently to LIBOR. RFRs are nearly risk-free, whereas LIBOR reflects perceived credit risk. Fixings for RFRs therefore tend to be lower. This could mean that a trade which transitions from LIBOR to a RFR has a different market value over time than it otherwise would have had. In other words, there might be "winners and losers". Valuation methodologies should be revised. Liquidity in the market for RFRs is also likely to be a restraining factor, certainly early on.

- Market-wide and cross-jurisdictional coordination might be limited. Regulators want transition to be a market-driven outcome. As a result divergent market approaches could emerge. For example, for transition to work, the following (among other things) should be in place: (i) fallback language; (ii) a term structure for certain products; and (iii) solutions to any hedging impacts and hedge accounting concerns. To achieve this, alignment and coordination are needed between industry participants, legal advisors and accountants. Without coordination, the risks of transition may increase.

- The future of LIBOR is uncertain. It is unclear whether or not LIBOR will be permanently discontinued by the end of 2021. Firms should plan for cessation, but they should also consider a scenario where LIBOR in some form continues post-2021.

In summary, LIBOR transition is a complex undertaking. Its success will depend on active collaboration between a range of different market participants and the official sector (see Figure A).

Figure A: Key dependencies



3. Step 1: Mobilise a cross-business unit and geography transition programme with C-level sponsorship

Boards should establish a coordinated, centralised and senior SteerCo to manage and oversee LIBOR transition. UK regulators have asked the largest banks and insurers to appoint a Senior Manager to be accountable for and oversee LIBOR programmes, in accordance with the UK Senior Managers and Certification Regime (SM&CR).¹⁷ This should be documented in the Senior Manager's Statement of Responsibilities and the firm's Management Responsibilities Map.

There are similar regimes further afield. In Australia, the Banking Executive Accountability Regime requires the registration of senior executives and directors of deposit-taking institutions, as well as the development of accountability maps. In Hong Kong, the Managers-in-Charge framework for all "licensed corporations" applies; and the Monetary Authority of Singapore has proposed guidelines to strengthen the individual accountability of senior managers and raise the standards of conduct in financial institutions. The Financial Stability Board (FSB) has also produced a toolkit for firms and supervisors to use to manage misconduct risk.¹⁸ While regulators in these jurisdictions have not specifically linked these regimes to LIBOR transition, they might do so in the future. Firms that are not subject to these rules should consider whether adopting a similar model would be beneficial in relation to LIBOR transition.

While there is no right answer to the question of which senior manager should oversee benchmark transition, we have seen the Chief Financial Officer, the Chief Risk Officer or, in some cases, a combination of the Chief Financial Officer and markets/business leads taking on this role. It may be appropriate for sponsorship to change during the programme lifecycle. For example, once the transition plans are set and ready for implementation, accountability could potentially move to the Chief Operating Officer.

As firms mobilise their LIBOR programmes, they should consider its unique characteristics. This analysis will underpin the delivery plan. Overleaf, at Figure B, we set out an illustrative LIBOR transition programme governance structure. We also provide our view on what makes LIBOR transition different and what the implications are for firms.

"We can see it coming, and we know the impact of a disorderly transition would be huge. Therefore, a half-hearted effort or a failure to act would be inexcusable, especially after all we have learned from the experience of the financial crisis. Moving this core piece of the global financial system to a firm and durable foundation is essential and worth the cost."

William C. Dudley, former President and Chief Executive, Federal Reserve Bank of New York, May 2018¹⁹

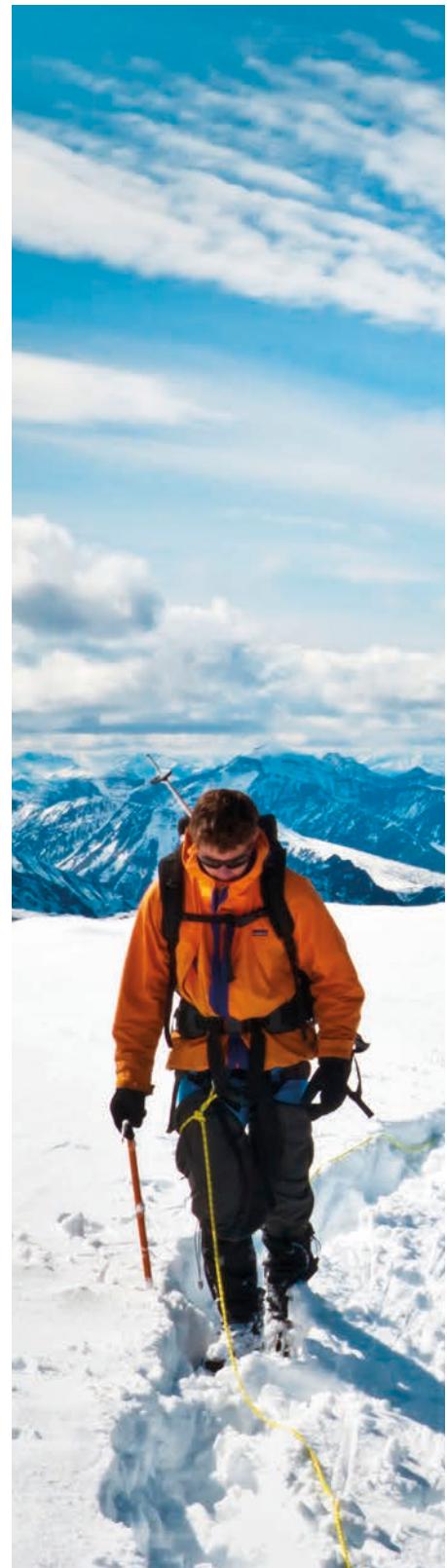


Figure B: LIBOR transition programme governance structure**Programme sponsor:**

Should be a Senior Manager (for firms subject to the SM&CR) and ideally a member of the Executive Committee. If not on the Executive Committee, the programme sponsor should report to it regularly (monthly), and should chair the SteerCo. The terms of reference of the Group SteerCo should be clearly defined along with decisions and other matters which are reserved for the Executive Committee and the Board. The programme sponsor will be the primary point of contact for engagement with the firm's regulators.

Group Board:

Should receive periodic (quarterly) reports from the programme sponsor, with the Audit Committee and Risk Committee considering in more detail those matters (e.g. impact of LIBOR transition on financial statements, hedge accounting, risk identification and mitigation) that fall within their respective remits.

Group SteerCo:

Is the primary decision-taker in relation to the transition programme. Its membership needs to be sufficiently senior to enable it to take decisions which commit the business (first line) and engage the control functions, without becoming so large as to impair its ability to take decisions efficiently and effectively.

It is essential that the SteerCo looks across the Group as a whole so as to be able to identify and deal with situations in which a decision which is optimal for one business unit is sub-optimal for other parts of the Group. Furthermore, where there is potential for conflicts of interest, these should be identified and addressed.

LIBOR working group:

Should be aware of market and regulatory developments as well as activities happening within the Group. The working group should deliver regular, "joined-up" and clear internal communications (fortnightly). It should meet weekly and report to the SteerCo.

Risk and Compliance functions:

Should be engaged at the start, when the programme is being mobilised to help identify the key delivery risks and the potential mitigants early, while also being cognisant of the firm's transition strategy.

Role of Internal Audit (IA):

Is to challenge the programme governance design, the approach to identification of exposures and adequacy of the data, and the approach to the impact assessment. IA should also formulate an independent view of risks around the programme which can be used to challenge the approach initially and on an ongoing basis.

IA should report to the Audit Committee, senior management and SteerCo setting out its view of the progress and status of the LIBOR programme.

What makes this transition different?

I. There is no legal or regulatory mandate



The outcome (transition from LIBOR to a RFR) and the timetable (end-2021) are not set out in legislation, even though regulators have stated their intentions clearly and repeatedly.

The only prospective regulatory intervention to underpin the transition that has been mentioned so far is that of the FCA – or the benchmark administrator – concluding that LIBOR is no longer sufficiently representative. In such circumstances, LIBOR would no longer satisfy the requirements of the EU BMR, and its recognition as a benchmark for use in new contracts would then cease.

The consequence of this lack of legislative underpinning is that different (regulated) firms could reasonably take different views as to what actions need to be taken and by when. Furthermore, unregulated counterparties are not directly subject to any regulatory pressure to renegotiate LIBOR-linked contracts and therefore may be slow or reluctant to engage. Alternatively, some counterparties or clients may be quicker off the mark and expect answers sooner than a sellside firm is able to provide them. A slow response could therefore affect a firm's competitive position in the market.

Implications

Agree the transition strategy and define programme plans early

- The transition strategy should reflect key decisions, for example, whether the firm wants to be a “first mover” in the transition. A “first mover” is a firm that offers products with the new RFR and stops issuing products linked to LIBOR. There have already been instances of firms offering RFR-linked products, but, thus far, we have not seen firms discontinuing their issuance of LIBOR-linked products. Key decisions of this type will inform the timeline, activities and resourcing requirements.

Client awareness and contract renegotiation should be managed appropriately

- The absence of a legal or regulatory mandate may make it difficult for the transition programme lead to persuade stakeholders that they need to act now, particularly where there is limited buyside demand for RFR-linked products. The client outreach and renegotiation process will be complex. Given the number of different relationships that a firm may have with the same client/counterparty (including products such as loans, deposits, derivatives, securities, etc.), a single, coordinated approach to contacting each client/counterparty is optimal.

- For some products, renegotiation may not be needed and a change to the terms may only require notification to counterparties or customers. Those contracts that mature beyond 2021 will be the focus of renegotiation efforts. Moreover, for derivatives, a market protocol will make contract amendments much easier, subject to firms and counterparties agreeing to sign up to it. Amending bonds, which require majority bondholder consent, will likely be more challenging.

Delivery plans should be flexible

- Firms need to understand the implications of different scenarios on their financial performance and delivery programme; and they should be ready to react to changing market events.
- Project milestones should be regularly reviewed and, if need be, revised in the event of delays to the agreement of industry standards (e.g. to the International Swaps and Derivatives Association (ISDA) Market Protocol and any new standardised fallback terminology across products).

- However, one of the challenges is that exact, fixed dates for these events have not yet been set. Firms should identify the work and activities that do not depend on external market events and ensure that these are set out in their plans, with target delivery dates. It may be the case that many of these actions, such as assessing financial exposures and operational impacts, could be delivered early in the process.

II. LIBOR is deep-rooted



LIBOR and other benchmarks are deep-rooted in firms' systems, processes, and models (among other things). Transition touches almost every part of a financial services group: banking, capital markets, insurance and asset management. Within the Group it will spread across different subsidiaries, branches and countries. This means that a decision concerning LIBOR transition or, say, the development of a new RFR-linked product, which may be optimal for one part of the business, may have unforeseen negative consequences for other parts of the Group. For example, this could occur where one part of the business starts to renegotiate a loan contract and looks to amend its provisions beyond just changing the reference rate (e.g. following a customer request and/or commercial opportunity). This could in turn compromise the accounting treatment, because the contractual change could be deemed a substantial modification (see Section 5 for further analysis on the accounting risks).

Separately, large-scale operational and IT impacts should be factored into the overall plan for transformational projects, recognising that there will be linkages between this work and other major IT and operational projects. These dependencies will require active, ongoing management and should be visible to the sponsor(s).

Implications

The programme governance structure should be set up in a way that includes all the relevant first, second and third line stakeholders

- It should allow decisions which affect one or more functions or businesses to be identified quickly and escalated to a senior SteerCo (and in some cases the Executive Committee and the Board) for decision.
- However, it should also strike the right balance between allowing for “business as usual” and ensuring the right degree of control. While this will always be true for any large-scale programme, our view is that the breadth of business functions and range of countries affected by LIBOR transition mean there will be more of these cross-functional decisions to be taken. This should be reflected in the frequency of meetings and time that the most senior managers are expected to spend on programme governance.

- Given the global scope of the programme, clarity of internal communications will be key. Resourcing for the programme manager, to do the “joining-up” across the Group and deliver the communications, will also be critical. To achieve this, the central programme should have the capabilities and channels to engage proactively across the business divisions.

III. Strategic decision-making will be needed against a background of uncertainty



LIBOR transition will affect a firm’s product mix, the behaviour of its balance sheet, the economics of the underlying business and its competitive position in the market. It will require a series of strategic decisions to be made by the Executive Committee, and in some cases the Board, against a background of continuing uncertainty. Regulators will want to know how the Board is apprised of progress.

Implications

Firms should develop sophisticated scenario modelling capabilities

- Firms should articulate scenarios for transition. They should update them to reflect the latest industry and regulatory developments and assess the impact on the underlying economics of the business. The scenarios may need to be updated and the impacts modelled regularly.

IV. Management information will be challenging to develop



Management information (MI) and key performance indicators are essential for any programme, but in the case of LIBOR transition will be challenging to develop. This is in part because firms are finding it understandably difficult to identify and quantify the extent of their LIBOR-related exposures, embedded within products and documentation. See Figure D for more detail.

Implications

Firms should be satisfied with the completeness and accuracy of input data

- Building confidence in the numbers will be an iterative process for firms: they may start off with a financial exposure view that is a best estimate and then refine it over time. Firms will need a clear view of the completeness and accuracy of the input data. This may not be as much of an issue for smaller firms, as they typically have fewer data sources.

Firms should consider the areas on which they will need MI

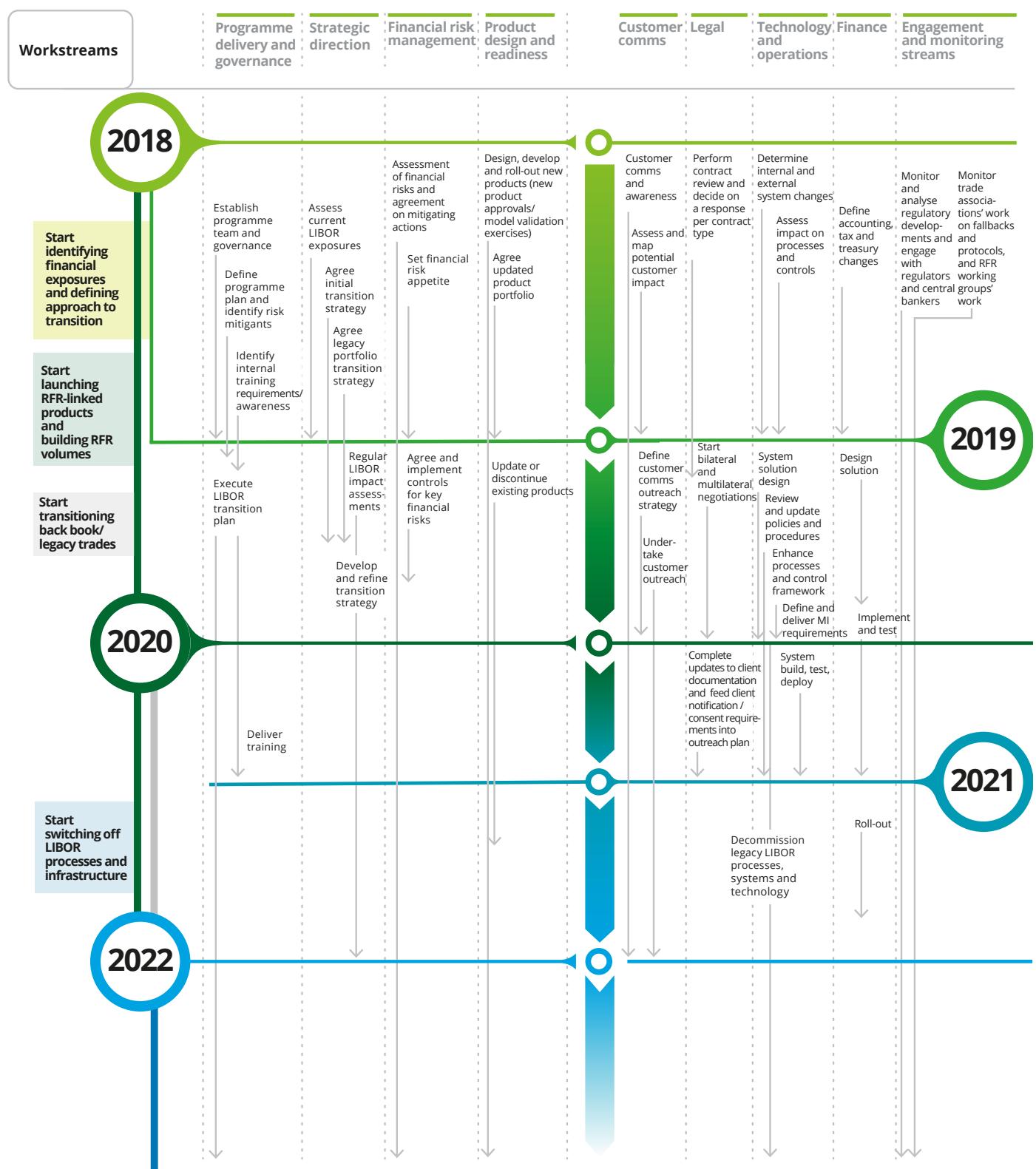
- The MI should be actionable. For example, a firm might identify that a trading desk has increased LIBOR exposures in the last month instead of decreasing them in line with the SteerCo agreed profile for exposure reduction. Where this is the case, processes should be in place which allow firms to determine whether further action is needed. More time will be needed upfront to establish the starting position of financial exposures from which progress can be tracked. This will likely require significant resource and will remain a work in progress (in terms of increasing levels of confidence in the data) for the early phases of the programme.

“A risk-free rate would help accomplish two goals. First, it would reduce the dependence on any individual benchmark. Second, it would allow counterparties to select benchmarks that might more closely match the exposures they want, enabling them to better meet the needs of some derivatives markets.”

Lynn Patterson, Deputy Governor, Bank of Canada, June 2018²⁰

4. Step 2: Set out a transition roadmap

Figure C: The transition roadmap



Key transition activities

Four key blocks of activity will make up the transition programme:

- i. identifying financial exposures and defining the approach to transition;
- ii. launching RFR-linked products and building RFR volumes;
- iii. transitioning the back book/legacy trades; and
- iv. switching off LIBOR processes and infrastructure.

At the initial stage of the programme, priorities are likely to include the following components:

Programme delivery and governance:

See Section 3 of this paper.

Strategic direction: Firms should assess financial exposures as soon as possible. Ideally, firms should have already reached an initial view on financial exposures and have a clearer view by the end of the year (although, for some firms this may be later). They should also understand how they will manage these exposures and reduce them over time. Deciding when to introduce new RFR-linked products and when to discontinue the issuance of LIBOR-linked products altogether will be important. UK regulators take the view that transition to new RFR-linked products could happen now, and there is evidence of this happening, with increased volumes of Sterling Overnight Index Average (SONIA) and Secured Overnight Financing Rate (SOFR) trades being cleared (also see Appendix A and B).²¹ Firms may develop and utilise bespoke tools to support program delivery, such as a LIBOR inventory and planning dashboard to support various elements of delivery including (but not restricted to) analysis of financial exposures, contract repapering, wind-down tracking etc. See Figure D for illustrative Deloitte insights and MI.

Financial risk management: Firms need to have a clear idea of how they will manage the financial risks created by transition. Some examples include (i) accounting (e.g. effective interest rate calculations and impairment analysis); (ii) valuation (e.g. mark-to-market on "day 1" of the change and who "wins" and who "loses"); and (iii) risk management (e.g. model changes, curve construction changes and development of new/adaptation of existing RFR risk management tools).

Differences in definition between LIBOR and RFRs mean that firms need to make changes to the design and calibration of valuation and risk management models for contracts. Hedging strategies should be reviewed alongside hedge accounting impacts. The challenges are compounded by the fact that most markets for RFRs are nascent and therefore relatively illiquid, the absence of term structures in the rates, the limited availability of historical data, and the disparate nature of successor RFR rates across jurisdictions. Depending on current capabilities, the changes firms need to make may extend beyond models to valuation and risk management systems and processes.

Product design and readiness:

Generating sufficient demand from the buyside will be a key driver of the achievability of transitioning by the end of 2021. Firms should consider issuing a RFR-linked product by H1 2019, (e.g. a bond to stimulate market activity). There have already been significant developments in some jurisdictions.

Customer communications: Customers are already asking for information on the impact of transition and the approaches that firms will take. A coordinated communication plan across business units and geographies, which covers the initial education through to detailed customer-specific discussions, is needed. This should happen as early as possible.

Engagement and monitoring streams:

A key aspect of external engagement will be with regulators. Given the differing approaches by regulators, an engagement strategy that reflects this should be developed. With the intensity of regulatory interest increasing, this workstream will be valuable in pre-empting and preparing for the expected additional level of scrutiny. Firms should reach a view on the prudential and conduct risks and how they will assess these under a range of scenarios (see Section 5 for more information on the risks associated with transition).

All market participants will be required to play key roles in moving this transition forward. There are a range of events which will influence transition and determine when firms can undertake certain activities. Monitoring these market events from the outset will be critical so that firms can respond and adapt their plans accordingly.

"The statements by FCA Chief Executive Andrew Bailey that firms must end their reliance on LIBOR by the end of 2021 have been clear and unequivocal. Market Participants should be under no misconceptions that LIBOR will continue to exist after this."

Cathie Armour, Commissioner, Australian Securities & Investments Commission, October 2018²²

Figure D: Generating insight to drive transition

Deloitte's specialist Global LIBOR Analytics practice is guiding clients in the development and expression of analytics insights to support LIBOR programme delivery. Below, we set out illustrative example outputs and MI.

Business User Example: Financial Impact



By understanding the financial impact of moving to a particular curve (e.g. effects on PV, DV01 and cash flows), mitigation strategies can be devised. This will enable business users to make strategic decisions as they progress with implementing their transition plans and client outreach.

Leadership Example: Wind Down MI



Key metrics will enable the SteerCo and programme manager to track the progress of their programme deliverables.



5. Step 3: Identify the risks and implement mitigants early

A disorderly transition from LIBOR would be detrimental to individual firms as well as to the market more broadly. There is, therefore, a strong incentive for each individual firm to identify and manage delivery risks as early and efficiently as possible to avoid problems further down the line.

Boards and programme managers should use their understanding of these risks to drive the activities or solutions needed to mitigate them. Below, we set out our view of some of the top risks that may arise as well as how they could potentially be mitigated. This is not an exhaustive list, but rather illustrative of the risks and potential mitigants that may be considered.

Figure E: Overview of key risks and potential mitigants

<p> Insufficient industry action, because transition is not mandated by regulation or legislation, leads to delays and/or sanctions</p> <ul style="list-style-type: none"> ✓ Educate senior stakeholders on why it is essential to mobilise and fund a programme ✓ Engage with industry working groups, central banks and regulators ✓ Document plans and progress in relation to transition as part of an engagement strategy 	<p> Contractual continuity gives rise to legal risk</p> <ul style="list-style-type: none"> ✓ Analyse contractual language and affected counterparties early ✓ Amend contracts to address permanent discontinuation scenario ✓ Ensure compliance with EU BMR 	<p> Accounting implications may result in de-recognition of contracts and/or discontinuation of hedge relationships</p> <ul style="list-style-type: none"> ✓ Identify instruments that might be affected by accounting issues ✓ Consider whether repapering is needed and evaluate how existing hedges might be affected by it ✓ Ensure all staff and customers are aware
<p> Financial exposures to LIBOR continue to grow and lead to systemic risk</p> <ul style="list-style-type: none"> ✓ Establish a strategy and target for reducing LIBOR exposures ✓ Consider how best to build demand for RFR-linked products ✓ Put in place the capability to monitor and manage LIBOR exposures 	<p> Lack of awareness of frontline staff leads to poor client outreach outcomes</p> <ul style="list-style-type: none"> ✓ Implement an internal communications strategy ✓ Consider roll-out of training programmes, leading practices and a "red-flag" system, which highlights key issues employees should consider before taking action or a process by which to escalate certain issues 	<p> Amendments to existing contracts may result in potential tax issues</p> <ul style="list-style-type: none"> ✓ Identify the instruments that might be affected ✓ Review the nature of amendments to existing contracts and review intra-group arrangements ✓ Ensure all staff and customers are aware
<p> Information asymmetries, inadequate disclosures and conflicts of interest give rise to conduct risk</p> <ul style="list-style-type: none"> ✓ Establish a clear client communication strategy ✓ Have a system in place to distinguish between customers e.g. less sophisticated customers ✓ Ensure disclosures are clear, fair and not misleading ✓ Ensure customers understand the risks or outcomes they might face from transition 	<p> The broader impacts of transition, including operational issues and existing regulatory rules, lead to delays</p> <ul style="list-style-type: none"> ✓ Ring-fence sufficient time and resource to identify and make operational changes ✓ Include broader impacts, and consider wider rules, such as margin requirements and the Fundamental Review of the Trading Book, in the initial impact assessment 	<p> Firms do not focus sufficiently on the switch from EONIA and Euribor, as well as other global reform efforts, in 2019 which results in disorderly transition</p> <ul style="list-style-type: none"> ✓ Have a clear view on what is achievable in time for the 1 January 2020 deadline for EU BMR ✓ Apply lessons learned from the transition of EONIA, and possibly Euribor, to the transition of LIBOR ✓ Monitor benchmark reform efforts across other jurisdictions
	<p> Insufficient RFR liquidity makes it difficult to build a curve and price products</p> <ul style="list-style-type: none"> ✓ Monitor liquidity on legacy LIBOR and new RFR-linked products across jurisdictions ✓ Decide whether to contribute to RFR liquidity by issuing RFR-linked products ✓ Assess whether a term rate is essential for all parts of the market 	

Key risks and potential mitigants

Insufficient industry action, because transition is not mandated by regulation or legislation, leads to delays and/or sanctions



Financial exposures to LIBOR continue to grow and lead to systemic risk



Information asymmetries, inadequate disclosures and conflicts of interest give rise to conduct risk



This puts responsibility for proactive engagement on market participants. Should firms fail to engage, they may miss key market opportunities, such as building demand for RFR-linked products. They may also face regulatory intervention, including sanctions, if authorities determine that they have failed to act in the best interests of their customers or manage risks effectively.

Potential mitigant: Education of senior stakeholders is required to build understanding of why it is essential to mobilise and fund a programme. The actions and their timing should be determined by the initial impact assessment and transition strategy (as described in Sections 3 and 4 of this paper). Firms should also engage with selected industry working groups and ensure they are “part of the conversation” if they have not already done so. They should establish a strategy for engagement with central banks and regulators and document their plans and progress in relation to transition as part of this strategy.

There is a risk that banks continue to issue new LIBOR-linked contracts, which mature past the end of 2021, and do not transition to using RFRs despite this option becoming available. Where this is the case, firms' exposures, and associated risks, will grow.

Potential mitigant: Regulators, such as the FCA's Andrew Bailey, take the view that “the smoothest and best means for this transition is to start moving away from LIBOR in new contracts”.²⁴ Firms should establish a strategy and target for reducing their LIBOR exposures, which is agreed by the SteerCo and other Executive Committees where appropriate. They should consider the ways in which they can build demand in RFR-linked products over the course of the next few years. Processes and controls will be needed to monitor the changes to exposures and allow firms to take action where progress is not meeting the milestones set out in firms' plans.

Moving from legacy products to RFR-linked products could create winners and losers – with one party paying or receiving more or less. If the process is not managed appropriately, with the requisite levels of transparency, customers could file complaints or claims against firms arguing that they were treated unfairly. This risk is heightened by potential information asymmetries (e.g. a big bank being on a RFR sub-working group and therefore having more insights than its clients into the advantages and disadvantages of transition). This could, in turn, lead to firms being criticised for failing to manage conflicts of interest.

Potential mitigant: A clear client communication strategy, underpinned by rigorous programme controls and documentation, is vital. Firms should have a system in place to identify and distinguish certain types of customers which will be affected by transition – for example, identifying the more “vulnerable clients” (e.g. retail clients and small-to-medium sized firms), with weaker bargaining power. Firms should incorporate appropriate disclosures which are clear, fair and not misleading. For example, many floating rate note prospectuses filed with the US Securities and Exchange Commission have included a risk factor on LIBOR reforms. Firms should set out the risks or outcomes that customers might face and have processes in place to ensure customers, particularly retail clients, understand them. Moreover, firms should identify, record and manage conflicts of interest effectively as disclosures alone may be insufficient.

“Firms that we supervise will need to be able to demonstrate to FCA supervisors and their PRA counterparts that they have plans in place to mitigate the risks, and to reduce dependencies on LIBOR.”

Andrew Bailey, FCA, July 2018²³

Contractual continuity gives rise to legal risk



The methodologies for calculating LIBOR and RFRs differ, and therefore amending legacy contracts to refer to RFRs could be more financially advantageous for one party. One of the risks is that contracts become "frustrated" and are deemed inoperable and, therefore, are set aside. Were this to happen on a large scale, it would be significantly disruptive. Many standard-term legacy contracts contain fallback provisions which envisage LIBOR becoming unavailable, but these provisions were not intended to address a permanent discontinuation and cannot be relied upon in the long term should this transpire.

The courts are usually reluctant to allow contracts to become frustrated. One possible outcome is that they look to imply a term into the contract to fill the LIBOR gap, i.e. one to the effect that if LIBOR ceased to exist, there would be a substitute rate.²⁵

Potential mitigant: When identifying financial exposures, firms should analyse the contractual language used and the counterparties that will be affected. The vast majority of contracts that run beyond the end of 2021 will need to be amended to deal with the permanent discontinuation scenario. Different approaches can be taken across products (e.g. market protocols or incorporating terms which allow firms to make amendments following the discontinuation of LIBOR). Appropriate legal advice should be sought. However, even with voluntary market protocols, all firms may not necessarily agree to them.

Firms should note that the EU BMR (Article 28(2)) requires benchmark users to have robust, written plans in place, setting out how they would deal with situations where a benchmark is materially changed or discontinued. Firms should ensure that they comply with this provision.

Lack of awareness of frontline staff leads to poor client outreach outcomes



This could lead to situations in which customers are given conflicting messages from different parts of the business. Further, frontline staff could promote products in a way which is not aligned to the wider strategy of the firm, or one part of the business could switch to a RFR without considering the implications for another part of the business (e.g. hedge accounting).

Potential mitigant: Firms should implement an internal communications strategy, ensuring that a baseline level of awareness of the wider implications of transition filters down to the different functions across the business. This may require the roll-out of training programmes, leading practices and a "red flag" system, which highlights key issues employees should consider before taking action or a process by which to escalate certain issues.

The broader impacts of transition, including operational issues and existing regulatory rules, lead to delays

Boards should reach a clear view on the extent to which LIBOR is embedded in their systems and processes. The changes to the operating model are likely to be significant and identifying them early will help the programme lead reach a view on the cost to deliver transition. Furthermore, firms should be aware of other areas where there are LIBOR dependencies. For example, firms which have approval to use their own internal models to calculate regulatory capital for their trading book exposures will also need to consider the interaction between LIBOR transition and the implementation (scheduled for 2022) of the Fundamental Review of the Trading Book (FRTB). Some firms have identified concerns that a lack of liquidity and observable transactions in either the new RFRs or legacy interbank offered rate benchmarks during the initial transition phase may cause some risk factors to become "non-modellable". If these concerns materialise, the net effect could be a significant increase in capital requirements for the firms concerned. It is difficult to imagine that regulators intended transition to have this effect on the FRTB.

Many legacy derivatives contracts are currently exempt from certain requirements set out in derivatives clearing legislation. It is not clear whether incorporating fallbacks or RFRs into these contracts could trigger these rules. Were this to happen, previously exempt contracts would be subject to the requirements under the legislation, including non-cleared margin rules. In the US, the Alternative Reference Rates Committee (ARRC) has sought clarification on this issue. In the UK, the FCA has suggested that such amendments would not trigger margin requirements.²⁶

Separately, Solvency II regulations currently require insurers to value assets and liabilities using “risk-free” discount rates (calculated by the European Insurance and Occupational Pensions Authority (EIOPA)) based on LIBOR and other relevant rates.²⁷

Potential mitigant: Firms should identify and include all relevant broader impacts in the initial impact assessment that is undertaken and ensure that the relevant stakeholders identify the full extent of the changes required. Firms should ring-fence enough time and resource in their transition plans to address operational issues and the ways in which LIBOR may be integrated into other processes. Furthermore, where there are uncertainties or conflicts with existing rules, these issues need to be addressed by firms (and their trade associations) as part of their regulatory engagement strategies.

Insufficient RFR liquidity makes it difficult to build a curve and price products



Accounting implications may result in de-recognition of contracts and/or discontinuation of hedge relationships



A lack of liquidity may mean that firms are unable to build a curve and price products effectively. This could give rise to client and counterparty complaints in the future and, in addition, to issues for the firm itself in relation to appropriate hedging.

Potential mitigant: Firms should monitor liquidity in both legacy LIBOR and new RFR-linked products across jurisdictions. For example, the ARRC estimated in its paced transition that it would need three years to develop a liquid derivative market based on SOFR from the start of its daily publication.²⁸ There is also a strategic decision to be taken by the Board, with financial and balance sheet implications, on whether the firm is going to contribute to the liquidity of RFRs by issuing RFR-linked products.

Firms should assess whether a term rate is essential for all parts of the market; for example, the FSB has noted that in some markets, notably the largest part of the interest rate derivatives markets, it will be important that transition is to RFRs rather than term RFRs.²⁹ Firms could consider whether other changes could be made to ensure that corporates are still given visibility of cash flow, without a full curve being required to provide this information. They should monitor developments from the RFR working groups, which might provide further clarity in respect of these issues. As noted above, some firms are already testing the market by issuing RFR-linked debt products.

If the benchmark interest rate in a legacy contract is replaced with a RFR, counterparties will need to assess whether this constitutes a substantial modification and therefore “de-recognition” for the purposes of International Financial Reporting Standards.

The continuity of hedge relationships, once benchmark interest rates are replaced with the new RFR, will depend on various factors. For example, whether the change in terms of the hedging instrument leads to a discontinuation of the hedging relationship. There may also be implications prior to transition, for example, for designated cash flow hedges that hedge LIBOR cash flows beyond the transition date.

Potential mitigant: Firms should identify instruments that might be affected by accounting issues. For example, they should identify their LIBOR exposures and outstanding hedge relationships, consider whether repapering is needed and, if it is, evaluate how their existing hedges might be affected by it. Appropriate staff and customer engagement and education, as well as discussions with auditors, should be considered as part of this process.

Amendments to existing contracts may result in potential tax issues



Before amendments are made to existing contracts (loans, derivatives, etc.), firms should consider whether this could give rise to a disposal of the existing contract for tax purposes. If amendments are considered material, this may constitute a disposal of the existing contract and entering into of a new contract for corporation tax purposes in certain jurisdictions.

A disposal of intra-group contracts may be treated differently to third party contracts. For intra-group contracts, a deemed market value disposal rule in the tax code could crystallise a tax charge if tax neutral grouping provisions are not available. However, third party contracts may crystallise a tax charge (for the firm or its customer counterparty) where tax law follows the accounting treatment and there is a profit and loss (P&L) impact arising in respect of the transition (taxable credit or deductible debit), which may be the case where there is a "substantial modification" of the contract for accounting purposes. This should be considered in conjunction with the accounting considerations. If a tax event is expected to be material, a change of tax law could be proposed to spread the effect of the P&L impact over several tax years (there are precedents for such transition adjustments).

Firms should also consider whether there are implications for other areas of the tax code in the particular jurisdiction – for example, hybrid rules, corporate interest restriction rules, transfer pricing and thin capitalisation rules. Where intra-group LIBOR funding is being replaced, firms should check that the new method of pricing is on an arm's length basis in accordance with transfer pricing rules, so as to ensure there are no tax return adjustments to deny the deductibility of financing expenses. Firms should also ensure that the new RFR basis is an appropriate return such that, *inter alia*, it is not capable of being re-characterised as a non-deductible distribution or subject to stamp duty on transfer (which may apply to returns dependent on the results of a business and returns that exceed a normal commercial return).

Potential mitigant: Firms should identify instruments that might be affected by these tax issues. Where repapering of contracts is needed, a tax advisor should review the nature of the amendments to the existing contract, together with the envisaged accounting treatment. Existing contracts should be reviewed generally to consider whether any tax events are triggered in the terms and conditions of the instruments. Firms should also consider the impact from the perspective of the client counterparty and address potential obstacles. Transfer pricing specialists should review any new intra-group arrangements. Appropriate staff and customer engagement and education should be considered as part of this process.

Firms do not focus sufficiently on the switch from EONIA and Euribor, as well as other global reform efforts, in 2019 which results in disorderly transition



If firms are not ready in time for EONIA and Euribor transition, this could lead to a significant loss in business and major reputational damage if contracts become inoperable. Firms should continue to monitor developments regarding possible amendments to EU BMR transitional provisions.

Furthermore, firms should monitor global efforts to reform interest rate benchmarks more generally. They will need to be aware of regulatory frameworks across jurisdictions and understand whether these might affect them – for example the EU BMR includes a third-country regime which affects non-EU entities that administer benchmarks used by EU supervised entities.

Potential mitigant: Firms should be clear on what they need to do to meet the current deadline of 1 January 2020 for EONIA and possibly Euribor transition. Moreover, given the timelines, they should consider how any lessons learned from EONIA and Euribor transition might be applied to LIBOR transition.

Firms should be clear on how other benchmark reform efforts might affect their businesses. Bespoke LIBOR tools and dashboards may be developed by firms to track exposures and the timelines by which they need to make changes across jurisdictions. The FSB publishes annual progress reports which outline global developments.

6. Conclusion

LIBOR transition will be like no other transformation programme that firms have undertaken. The risks are significant and Boards should take action to mitigate them now. While firms may consider 2021 to be a long way off, the complexity and scope of the task ahead allow no room for complacency or inertia. In particular, firms should expect regulators to ask regularly about their progress and readiness for transition. Some have already done so and have asked that they appoint a Senior Manager to oversee and take accountability for the firm's transition programme as part of existing regulatory rules.

The level of scrutiny will continue to grow and there will be consequences if progress does not happen fast enough (or at all). To set their firms up for success, Boards should ensure that their programmes have been mobilised, that they have a clear transition roadmap and that they have identified all relevant risks and are managing them.



Appendix A: Overview of the RFRs across jurisdictions

The table below highlights the differences between the RFRs which will replace LIBOR (it is also relevant to EONIA and Euribor).

RFRs across jurisdictions				
Jurisdiction	Alternative RFR	RFR Administrator	Go live date	Key features
UK	Reformed Sterling Overnight Index Average (SONIA)	Bank of England	23 April 2018	✓ Live X Secured ✓ Fully transaction-based ✓ Cleared
US	Secured Overnight Financing Rate (SOFR)	Federal Reserve Bank of New York	3 April 2018	✓ Live ✓ Secured ✓ Fully transaction-based ✓ Cleared
Eurozone	Euro Short-Term Rate (ESTER)	European Central Bank	By October 2019	X Live X Secured ✓ Fully transaction-based X Cleared
Switzerland	Swiss Average Rate Overnight (SARON)	SIX Swiss Exchange	25 August 2009 (long history of publication)	✓ Live ✓ Secured X Fully transaction-based ✓ Cleared
Japan	Tokyo Overnight Average Rate (TONA)	Bank of Japan	1 November 1997 (long history of publication)	✓ Live X Secured ✓ Fully transaction-based ✓ Cleared

Appendix B: Market events

The timeline below highlights the key RFR working group and market developments of 2018, which affect LIBOR, EONIA and Euribor, as well as expected future developments. This is not an exhaustive list, but it illustrates the complexity and interdependencies involved in transition.

	2018	2019	2020	2021
UK	<ul style="list-style-type: none"> Apr: SONIA went live Jul: Consultation on term rate for SONIA opened Jul: Report on new bond issuance Oct: Consultation on term rate for SONIA closed Dec: Deadline for responses to FCA/PRA 	<ul style="list-style-type: none"> 2019: Operational capability for SONIA floating rate notes, loans and other instruments expected H2: Term SONIA rate expected 		<ul style="list-style-type: none"> End-2021: FCA will no longer compel or persuade panel banks to submit LIBOR quotes
US	<ul style="list-style-type: none"> Apr: CurveGlobal launched 3-month SONIA futures Jun: ICE and the LSE start trading SONIA futures Sep: FCA and PRA send Dear CEO letter on firms' preparations for transition Oct: CME launched SONIA futures Q4: Recommendations on fallback rates to be published 	<ul style="list-style-type: none"> 2019: GBP fallback language to be agreed and implementation to begin 		<ul style="list-style-type: none"> Q2: CCPs to stop accepting new swaps for clearing with effective federal funds rate as price alignment discount and the discount rate
Eurozone	<ul style="list-style-type: none"> Apr: SOFR went live Mar: ARRC published second report on transition May: CME offered SOFR futures Jul: ARRC letter on treatment of contracts referencing RFRs under Dodd-Frank Jul: Principles for more robust LIBOR fallback language in cash products Jul: LCH began clearing of OIS and basis swaps based on SOFR Sep: ARRC consultation on fallback language for floating rate notes and syndicated business loans End-2018: Trading in futures and bilateral OIS referencing SOFR in the current (effective federal funds rate) price alignment interest and discounting environment expected 	<ul style="list-style-type: none"> Q1: Trading in cleared OIS referencing SOFR in the current (effective federal funds rate) price alignment interest and discounting environment to begin 	<ul style="list-style-type: none"> Q1: CCPs to begin allowing market participants a choice between clearing new or modified swap contracts into the current price alignment interest/ discounting environment or one that uses SOFR 	<ul style="list-style-type: none"> Q2: CCPs to stop accepting new swaps for clearing with effective federal funds rate as price alignment discount and the discount rate By end-2021: New term rate based on SOFR derivatives markets expected
Switzerland	<ul style="list-style-type: none"> Feb: European Money Markets Institute (EMMI) announced it will not pursue a thorough review of EONIA Jun: ESTER calculation methodology published Jun: EMMI announced cessation of certain Euribor tenors Summer: European Central Bank published time-lagged pre-ESTER to facilitate adoption by markets Sep: ESTER recommended as the euro RFR Sep: Discussion on extension to EU BMR transitional period 	<ul style="list-style-type: none"> 2019: EMMI expected to apply for authorisation for Euribor administration under EU BMR By Oct: Publication of daily ESTER expected 		<ul style="list-style-type: none"> Jan: Deadline for transitional provisions in EU BMR
Japan	<ul style="list-style-type: none"> Jun: Term sheet for 3M SARON futures published and exchanges invited to start offering Jun: Questionnaire for corporate outreach published 	<ul style="list-style-type: none"> Q4: Term rate approach expected Q4: Recommendation on fallback templates for loan contracts expected 		
Key global market events and global reports	<ul style="list-style-type: none"> Apr: Guide for financial institutions on Yen OIS Aug: Cross-Industry Committee on JPY Interest Rate Benchmarks established 	<ul style="list-style-type: none"> Sep: Cross-Industry Committee is expected to propose best practice for RFRs 	<ul style="list-style-type: none"> May: Cross-Industry Committee expected to consult on JPY IBOR transition 	<ul style="list-style-type: none"> Sep: Cross-Industry Committee expected to release final report on JPY IBOR transition
	<ul style="list-style-type: none"> Feb: Trade association survey and roadmap published Jun: Trade associations' global benchmark report Jul: FSB statement on interest rate benchmark reform Jul: ISDA consultation on fallback rates 	<ul style="list-style-type: none"> Sep: ISDA published Benchmark Supplement Nov: FSB progress report on Interest Rate Benchmark reform expected Oct: Deadline for ISDA consultation on fallbacks – spread for GBP, CHF and JPY LIBOR derivatives Oct: ICE launched RFR portal Oct: Loan Market Association published recommended revised form of replacement screen rate clause and users guide 		<p>Unless stated otherwise, all developments set out are within the control of the relevant currency RFR working group or have been referenced in their respective timelines</p> <ul style="list-style-type: none"> Developments which have happened Developments which are yet to occur, expected publication Critical Deadlines

Endnotes

1. While this paper focuses on LIBOR transition, it is equally relevant to other types of benchmark transition.
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https://www.theice.com/publicdocs/ICE_LIBOR_Roadmap0316.pdf
3. Speech, Andrew Bailey, FCA, July 2018:
<https://www.fca.org.uk/news/speeches/interest-rate-benchmark-reform-transition-world-without-libor>
4. Speech, Andrew Bailey, FCA, July 2018:
<https://www.fca.org.uk/news/speeches/interest-rate-benchmark-reform-transition-world-without-libor>
5. Update, working group on euro RFRs, May 2018:
https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/WG_euro_risk-free_rates/shared/pdf/20180517/2018_05_17_WG_on_euro_RFR_Item_3_1_Mapping_exercise_ECB.pdf
6. The EMMI announced that it would no longer pursue a thorough review of EONIA. See statement, February 2018:
<https://www.emmi-benchmarks.eu/assets/files/D0030D-2018-Eonia%20review%20state%20of%20play.pdf>
7. Speech, Benoît Cœuré, European Central Bank, September 2018:
<https://www.ecb.europa.eu/press/key/date/2018/html/ecb.sp180925.en.html>
8. The working group on euro RFRs has supported a delay to the EU BMR transition. However, the European Commission has indicated that an extension of the transition period for continued use of EONIA and, possibly, Euribor beyond 1 January 2020 could only be considered as a legislative option if the request was clear, had a high level of stakeholder support and was accompanied by evidence that all alternative options not entailing an extension of the transition period would not achieve the desired smooth transition. See minutes of the working group, September 2018:
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<https://www.bankofengland.co.uk/-/media/boe/files/speech/2018/staying-connected-speech-by-mark-carney>
11. Following a report by the FSB on reforming major interest rate benchmarks, July 2014:
http://www.fsb.org/wp-content/uploads/r_140722.pdf
12. Speech, J. Christopher Giancarlo, US Commodity Futures Trading Commission, July 2018:
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<https://www.fca.org.uk/publication/correspondence/dear-ceo-letter-transition-from-libor-banks.pdf>
14. Speech, Lynn Patterson, Bank of Canada, June 2018:
<https://www.bankofcanada.ca/2018/06/rebooting-reference-rates/>
15. Speech, Andrew Bailey, FCA, July 2017:
<https://www.fca.org.uk/news/speeches/the-future-of-libor>
16. Report, ARRC, March 2018:
<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2018/ARRC-Second-report>

17. Letter, FCA/PRA, September 2018:
<https://www.fca.org.uk/publication/correspondence/dear-ceo-letter-transition-from-libor-banks.pdf>
18. Report, FSB, April 2018:
<http://www.fsb.org/wp-content/uploads/P200418.pdf>
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<https://www.bis.org/review/r180619a.html>
20. Speech, Lynn Patterson, Bank of Canada, June 2018:
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21. Speech, Andrew Bailey, FCA, July 2018:
<https://www.fca.org.uk/news/speeches/interest-rate-benchmark-reform-transition-world-without-libor>
22. Speech, Cathie Armour, Australian Securities & Investments Commission, October 2018:
<https://asic.gov.au/about-asic/news-centre/speeches/keynote-address-isda-annual-australia-conference/>
23. Speech, Andrew Bailey, FCA, July 2018:
<https://www.fca.org.uk/news/speeches/interest-rate-benchmark-reform-transition-world-without-libor>
24. Speech, Andrew Bailey, FCA, July 2018:
<https://www.fca.org.uk/news/speeches/interest-rate-benchmark-reform-transition-world-without-libor>
25. Report, Financial Markets Law Committee, December 2012:
<http://fmlc.org/wp-content/uploads/2018/03/Observations-on-proposals-for-benchmark-reform.pdf>
26. Letter, ARRC, July 2018:
<https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2018/ARRC-July-16-2018-titleviletter>
27. EIOPA uses market swap rates as an input in its calculation of Solvency II risk-free interest rate term structures for major currencies, in accordance with Solvency II requirements. For example, for the CHF, GBP, JPY and USD RFRs, it uses swaps linked to LIBOR; and for the EUR RFRs it uses Euribor. EIOPA's technical documentation notes that it is "aware of the initiatives in the Union to develop in the future risk-free instruments traded on deep, liquid and transparent markets". Technical Guidance, EIOPA, August 2018:
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