FSB FINANCIAL STABILITY BOARD

Basel Committee on Banking Supervision

BANK FOR INTERNATIONAL SETTLEMENTS

Supervisory issues associated with benchmark transition

Report to the G20

9 July 2020

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Executive summary

This report presents to the G20 the findings from the questionnaire on supervisory issues related to LIBOR transition distributed to the Basel Committee on Banking Supervision (BCBS), FSB and non-FSB members in Regional Consultative Groups (RCGs),[1] as well as a similar survey to the International Association of Insurance Supervisors (IAIS) members.[2]

The focus of the report is on LIBOR transition, given its predominant global role and the short remaining period for transition. The report however recognises that the use of alternative reference rates should be encouraged across global interest rate markets where appropriate, and that the recommendations covered in the report may also be considered by jurisdictions in reducing reliance on other Interbank Offered Rates (IBORs).

The survey and the analysis were undertaken before the COVID-19 pandemic and do not reflect any issues that might have been raised with respect to benchmark transition from the increased volatility in financial markets, including the major dislocations in short-term funding markets.

In its statement responding to the impact of COVID-19 on global benchmark reforms, the FSB has noted transition from LIBOR remains a priority.[3] The FSB has recognised that some aspects of firms' transition plans are likely to be temporarily disrupted or delayed by COVID-19, but also noted that COVID-19 has highlighted that the underlying markets LIBOR seeks to measure are no longer sufficiently active. The FSB maintains its view that financial and non-financial sector firms across all jurisdictions should continue their efforts in making wider use of risk-free rates in order to reduce reliance on IBORs where appropriate and in particular to remove remaining dependencies on LIBOR by the end of 2021. In this light, authorities may need to fundamentally review their readiness to implement some of the recommendations in this report, and, if necessary, revise their plans accordingly to be prepared to work on an even more compressed timeline when the pandemic situation has stabilised.

Remaining challenges for LIBOR transition

Overview of survey results

- Continued reliance of global financial markets on LIBOR poses clear risks to global financial stability. Transition away from LIBOR by end-2021 requires significant commitment and sustained effort from both financial and non-financial institutions (FIs and non-FIs) across many jurisdictions. The aim of this survey was therefore to improve the collective understanding of LIBOR transition progress so far and to increase awareness of the importance of ensuring timely transition. In light of the

1 Respondent members have reviewed the report and commented on the characterisation of their responses.

2 The IAIS survey results are attached as Annex 5 to this report.

3 See https://www.fsb.org/2020/07/fsb-statement-on-the-impact-of-covid-19-on-global-benchmark-reform/

survey results, this report puts forward a set of recommendations to support authorities and firms in their transition efforts.

- Adequate preparations for transition are important. The survey results confirm that without adequate preparation, the discontinuance of LIBOR would have a significant negative impact on FIs and non-FIs in the LIBOR jurisdictions and in a number of other FSB jurisdictions.[4] Some jurisdictions also mentioned potential impacts on both domestic and global financial stability absent adequate efforts to ensure a smooth transition. This is consistent with the FSB's judgement that the global exposure to US dollar (USD) LIBOR in particular is an issue of increased concern and attention on the part of authorities.
- In comparison, around half of the non-LIBOR jurisdictions indicated that LIBOR discontinuation would have no significant impact. Of these only four are FSB jurisdictions, two of which do not have a transition plan in place. Although many of the non-LIBOR jurisdictions reported that they consider LIBOR exposure to be small, there are many instances of a lack of information and where assessment has not been initiated or is ongoing. In three non-FSB jurisdictions, LIBOR discontinuation is perceived as an issue, but there is no transition plan in place.
- In terms of transition progress, authorities in LIBOR jurisdictions are relatively more advanced in taking initiatives to facilitate and monitor benchmark transition. FIs in these jurisdictions have shown better progress in transition, although significant challenges remain. While larger FIs in non-LIBOR jurisdictions are aware of the need to transition, with many either planning to transition or progressing in transition, there is a wider range in the level of preparedness.
- The limitations of the questionnaire should be observed in interpreting the analysis. In terms of coverage, the analysis is based on the 57 responses that were received. The completeness and level of details of the submitted responses vary across jurisdictions, which in part reflect authorities' varying stages and/or abilities to assess and analyse different transition-related issues, depending on jurisdiction-specific factors. For jurisdictions that have not identified any significant risks on transition, it may be due to insufficient information available to support a definitive judgment.

Exposure to LIBOR transition

- Compared to FSB jurisdictions, non-FSB jurisdictions are less likely to foresee significant risks in LIBOR transition, mainly due to perceptions of less frequent use of LIBOR in their financial systems. In some instances, there may be a lack of monitoring of LIBOR exposures.
- Respondents generally noted that low overall exposures to LIBOR do not necessarily indicate low levels of risk, as disorderly transition by some key market participants with substantial exposures could have spillover effects. Jurisdictions identified a range of risks which could arise from disorderly transition, some of which (e.g. operational risk) would apply regardless of the size of exposures.

[4] For the purpose of this report, LIBOR jurisdictions include the euro area jurisdictions (counted as one jurisdiction), Japan, Switzerland, the United Kingdom and the United States. It should however be noted that the predominance of euro exposure is with EURIBOR or EONIA, which are non-LIBOR reference rates.

- The evidence collected through the questionnaire shows that estimated asset and liability exposures to LIBORs are highest in the LIBOR jurisdictions. Exposures to USD LIBOR are fairly high in the non-LIBOR FSB jurisdictions, and exposures to LIBORs are relatively smaller outside of the FSB jurisdictions. The data available at these supervisory authorities are however sparse and of different degrees of granularity, and this limits the reliability of using the data to assess aggregate LIBOR exposure.
- The fact that a considerable portion of the exposures will mature after 2021 emphasises the importance of incorporating robust fallback language into contracts. Most jurisdictions were however unable to provide information in the questionnaire regarding the fallback language in legacy LIBOR contracts.

Transition strategy

- Most FSB jurisdictions have a strategy in place to address LIBOR transition, as opposed to only half of the non-FSB jurisdictions. Of those non-FSB jurisdictions without a strategy, some are considering the next steps. Reported transition plans typically include improving awareness and providing guidance to market participants, monitoring transition progress, outlining responsibilities and expectations with market participants, coordinating national working groups (NWGs), and coordinating with other domestic and international bodies.

Transition monitoring

- Of the FSB jurisdictions, LIBOR jurisdictions and a few non-LIBOR jurisdictions have taken the most systematic approach to monitoring transition progress of FIs. Around half of the non-FSB jurisdictions surveyed were not monitoring the progress made by FIs. Authorities in most jurisdictions, including FSB and non-FSB members, have focused their monitoring efforts on major banks.
- Non-FIs have significantly less monitoring coverage across all jurisdictions. Most jurisdictions seem to consider that non-FI exposures to LIBOR transition risks are small, although this is not certain as a lack of systematic monitoring of transition implies that the available information is not enough to confirm this conclusion.

Major transition challenges and risks

- From a microprudential perspective, transition risks may arise from operational, legal, prudential, conduct, hedging and accounting perspectives. The uncertainty about the future of LIBOR closer to end-2021 could also increase macroprudential risk from heightened volatility or disorderly functioning in LIBOR-referenced markets. Major transition challenges that have been identified include the need to develop further products referencing alternative reference rates, increasing liquidity in these products, the dependence on concrete alternatives offered by financial intermediaries and client willingness to adjust.
- In terms of the development of fallback language, FIs are awaiting the finalisation of the ISDA amendments and protocols so that the alternative reference rates can be adopted for existing derivatives contracts. Progress to introduce standardised fallback language into existing cash products is less prominent, and many jurisdictions raised concerns about the complexity of incorporating such provisions into existing (legacy)

contracts that do not have them, and the required operational readiness to facilitate their use. Some jurisdictions have also focused their efforts on introducing more robust fallback language into new cash product issuance.

- Six jurisdictions have identified certain types of LIBOR exposures which cannot be transitioned or which will be very difficult to transition. The most commonly cited measure to mitigate this was the expectation of legislative action at national, or where applicable, supranational level.

Supervisory actions and other initiatives

- In general, very few jurisdictions have dedicated roll-off timelines or targets to industry, although several jurisdictions reported supporting the private sector to develop their own targets. Authorities in LIBOR jurisdictions and in some FSB jurisdictions are relatively more advanced in taking initiatives to facilitate and monitor benchmark transition, which include sending "Dear CEO" letters, requesting or encouraging banks to set internal targets and deadlines for transition from LIBORs and carrying out desktop reviews or on-site examinations. Only a very small number of jurisdictions are reviewing the liquidity and/or capital implications of financial intermediaries moving to using alternative risk-free rates (RFRs) from LIBORs and other IBORs.
- A majority of the jurisdictions have not decided whether to take supervisory actions if the preparatory work of individual banks is unsatisfactory. Available tools to accelerate transition could include: requests to improve operational capabilities, requirements to increase resources, ad-hoc regulatory capital add-ons, restriction of activities or curtailing of specific product growth, and administrative sanctions or other legal actions.

Major supervisory challenges and areas for strengthened supervisory actions

- Authorities are concerned about the differing supervisory expectations for transition across jurisdictions, especially on legal and conduct risks. The varying transition timelines for different products is complicating the monitoring. There is a lack of clarity regarding the readiness of external systems used by FIs and non-FIs. Supervisors also have limited insight into and communication with the non-regulated clients of regulated FIs.

Areas for international cooperation

- A number of legal, operational and other issues have been identified that could benefit from stronger cross-border coordination and cooperation. The main issues identified include the inconsistency in transition timing and approaches across jurisdictions and jurisdiction-specific uncertainties on cross-border contract laws and legal or regulatory frameworks. Detailed information on cross-border exposures is also not available across jurisdictions.
- A number of FSB jurisdictions expressed the need for additional information exchange to share best practices and challenges, as well as progress across jurisdictions through the work of international fora such as FSB, BCBS and the International Organization of Securities Commissions (IOSCO) or existing channels.

Communication and messages from international fora are also seen as effective ways to raise the awareness of the industry and market participants.

Recommendations to support benchmark transition

Based on the responses received, the report has identified a number of recommendations to address LIBOR transition challenges. Some of these recommendations have already been adopted by authorities that are more advanced in transition. A few other recommendations, though not commonly adopted yet, are considered useful in order to fill the gaps identified from the questionnaire responses. A wider implementation of these recommendations by jurisdictions could facilitate more coordinated transition globally.

The recommendations are grouped under three areas: (i) identification; (ii) facilitation; and (iii) coordination. This report recommends that jurisdictional authorities, standard-setting bodies (SSBs), international bodies or other relevant stakeholders adopt or strengthen these recommendations in order to make further progress in transitioning away from LIBOR. While the list of recommendations should generally be applicable to all jurisdictions with LIBOR exposures, the approach and extent to which they are implemented in practice may vary across jurisdictions. It is also important that efforts in making wider use of RFRs and improving the robustness of contracts referencing other IBORs continue. The recommendations in general are applicable as well to reduce reliance on other IBORs where appropriate and make wider use of alternative RFRs.

Identification of transition risks and challenges

- Authorities and SSBs issue public statements as well as letters to CEOs to promote awareness of LIBOR cessation and associated risks, both within FIs and across the financial system.[5] This includes the identification of LIBOR-referenced contracts and an assessment of the impact on infrastructure and operations. In particular, further efforts are needed to enhance awareness and preparedness among smaller FIs and non-FIs.
- Authorities evaluate the need and then undertake regular surveys to monitor FIs' exposure to LIBOR and identify possible areas of risk concentration. Supervisory authorities take follow up actions in light of survey results.
- Authorities request from regulated FIs regular updates on key risks and action plans, as well as steps already taken, including identification of senior management responsible for transition.
- Authorities and SSBs, in collaboration with NWGs and industry associations where appropriate, engage with trade associations to raise awareness of non-FIs on the potential impact of LIBOR discontinuation and provide information on resources that may help the transition.

[5] For example, the BCBS recently issued such a public statement highlighting that it is critically important that banks consider the effects of benchmark rate reform on their businesses and make the necessary preparations for the transition to the alternative rates (https://www.bis.org/publ/bcbs_nl24.htm)

Facilitation of LIBOR transition

- Authorities establish and, where relevant, discuss with NWGs a formal LIBOR transition strategy. This might include interacting with NWGs with a view to set out milestones and a transition roadmap with clearly specified actions market participants should take within the roadmap.
- Authorities, in collaboration with NWGs and industry association where appropriate, (i) communicate clearly to FIs and market participants on the timing of the proposed change in market convention for new contracts from LIBORs to alternative reference rates and (ii) provide further clarifications of existing requirements, e.g. issues related to conduct risk.
- SSBs coordinate on guidance for transition where necessary and supervisory authorities communicate to market participants on the applicability of statements and guidance issued by SSBs and international bodies at the jurisdictional level.
- Authorities dedicate adequate resources and capacity to support transition efforts through active monitoring and regular supervisory dialogue, including discussions on transition plans and progress as well as readiness of internal and external systems.
- Authorities carry out further desktop reviews or on-site examinations, with potential coverage on types and levels of LIBOR exposures, transition plans, governance over the transition work and progress of negotiation with counterparties on LIBOR-referenced contracts.
- Supervisory authorities consider increasing the intensity of supervisory engagement when the preparatory work of individual banks is unsatisfactory, where needed.

Coordination

- Authorities promote industry-wide coordination by sharing latest developments and best practices on transition, for instance, via established or newly created NWGs with a diverse membership of FIs, non-FI corporations and corporate treasuries as well as industry associations representing various markets (e.g. derivatives, bond and syndicated loan markets).
- Authorities maintain dialogue with NWGs and industry associations (domestically and internationally) on the adoption of fallback language for various products and identify steps that would facilitate the transition of legacy products where feasible.
- Authorities consider working with relevant national bodies to identify legislative solutions, where necessary, to mitigate exposures of legacy contracts that have no or inappropriate fallbacks, and cannot realistically be renegotiated or amended.[6]
- Authorities exchange information on best practices and challenges, as well as progress across jurisdictions through the work of international fora such as the FSB, BCBS and IOSCO or existing channels (e.g. supervisory colleges and bilateral exchanges).
- FSB and SSBs coordinate at the international level to identify key common metrics for monitoring transition progress, for instance, a standardised template for assessing

[6] The effect of legislative solutions to mitigate exposures of legacy contracts, however, would depend on the solution adopted and it might take time for such solutions to come into effect.

LIBOR/IBOR exposures of FIs, and instructions for jurisdictions to more accurately capture LIBOR exposures could be developed. At the domestic level, authorities coordinate among themselves to reduce compliance burden on FIs and avoid duplication of efforts.

- International bodies, SSBs and authorities encourage FIs to maintain good understanding of wider market developments (in particular the discussion of output of NWGs and international bodies).

Next steps

The questionnaire results have shown gaps in quantifying LIBOR exposures and the status of fallback adoption and therefore it would be difficult to comprehensively assess the impact on financial stability arising from LIBOR transition. On transition progress, the survey results show that a considerable portion of FIs across jurisdictions have yet to start or are still planning their transition. In light of the expected cessation of LIBOR after end-2021, authorities should strengthen their efforts in facilitating FIs and non-FIs to transition away from LIBOR. Given that benchmark transition would have significant cross-border implications, there is a greater need to step up the coordination and monitoring effort at an international level. The next steps for the FSB are:

- The FSB, in collaboration with other international bodies and SSBs, will design a simple set of key metrics or indicators to update global LIBOR exposures and transition status, and identify a list of qualitative questions to monitor the progress in implementing the above recommendations. The aim is to provide another assessment of the transition progress by early next year.
- The FSB will continue to monitor the evolving impact of the COVID-19 pandemic on ongoing benchmark transition and incorporate its findings into the FSB's annual progress report on implementation of recommendations to reform major interest rate benchmarks (to be published before the G20 Summit in November).

1. Introduction

Since the 2007-09 global financial crisis, in response both to cases of attempted manipulation of key IBORs and the decline in liquidity in the related unsecured funding markets, global efforts have been taken to strengthen the robustness and reliability of existing benchmarks and promote the development and adoption of RFRs.[7] Despite reforms to LIBOR, the supervisor of its administrator[8] has warned market participants that they should expect it to cease publication at some point after a voluntary agreement with panel banks to continue their submissions concludes at the end of 2021.[9] Furthermore, there is also the risk that LIBOR could be found after that date to no longer be representative of the underlying market it purports to reference, due to a lack of underlying transactions.

Nevertheless, LIBOR is still being referenced in many new and legacy financial contracts worldwide. The FSB's December 2019 progress report highlighted that continued reliance of market participants on LIBOR poses risks to financial stability. In order to reduce such risks, all relevant stakeholders – including financial institutions, other market participants, non-financial sector firms and other users of LIBOR, as well as public authorities – need to transition away from use of LIBOR in the five LIBOR currencies (USD, EUR, JPY, GBP and CHF) to alternative reference rates.

Given the short time remaining for this transition to take place, substantial progress will be needed in the next one and a half years to address these risks. Firms that have not begun this work in earnest, and do not have plans to complete it by end-2021, run significant financial and reputational risks. The FSB has made clear that all firms need to end use of LIBOR in new contracts as soon as possible and, where possible, to accelerate their efforts to remove their reliance on LIBOR within legacy contracts.

This does not only apply to jurisdictions where LIBOR has been the main interest rate benchmark, but also to many other jurisdictions globally where LIBOR has been used. As such, benchmark transition is a multi-year international effort that takes into account diverse circumstances prevailing in different markets. Progress on transition in each of the LIBOR currencies is at different stages. Jurisdiction by jurisdiction differences in approach and timeline are unavoidable. However, to avoid the greater risk of being unprepared by the end of 2021, there should be no excuses for a 'race to the bottom' to move at the pace of the slowest.

Against this backdrop, the Saudi Arabian G20 Presidency has included benchmark transition among its priorities for 2020. The FSB was tasked with conducting a questionnaire concerning

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7 The FSB has engaged with national authorities and SSBs, and coordinated work with market participants through its Official Sector Steering Group (OSSG). The FSB Standing Committee on Supervisory and Regulatory Cooperation (SRC) has identified supervisory issues associated with benchmark transition as an area of focus. The BCBS and IAIS are also assessing the prudential and supervisory implications of the benchmark rate reforms. IOSCO launched a comprehensive communication and outreach project in 2019 to inform stakeholders about the primary transition steps planned in the benchmark reform and increase awareness among end-users and the financial services industry.

8 The administrator of LIBOR is supervised by the UK Financial Conduct Authority (FCA).

9 In July 2017, the FCA announced that it would not persuade or exert its legal power to compel the panel banks to contribute to LIBOR after the end of 2021. In July 2019, UK FCA and the US Federal Reserve reiterated that termination of LIBOR publication after the end of 2021 should be the base case assumption, and urged market participants to engage immediately with the transition given its complexity and the tight timeline.

exposures to LIBOR and the supervisory measures being taken to address benchmark transition issues, covering jurisdictions in the FSB and its RCGs, as well as BCBS member jurisdictions.

The purpose of the questionnaire was to improve collective understanding of progress on LIBOR transition, and to increase awareness of the importance of ensuring timely transition. The focus is on LIBOR transition in particular, given its predominant global role and the short remaining period for transition. The questionnaire was launched jointly with the BCBS, and IAIS sent its members a separate questionnaire focused on insurance supervision.

This report presents the findings of the above questionnaires, quantitative analysis of collected data on exposures to LIBOR, and a list of recommendations to address transition challenges that are identified from the questionnaire responses. The report is submitted to the July 2020 G20 Finance Ministers and Central Bank Governors meeting.

2. Overview of the responses to the questionnaire

The questionnaire was sent to a total of 96 FSB and non-FSB jurisdictions.[10] A total of 57 responses were received (24 from FSB jurisdictions, 33 from non-FSB jurisdictions). A list of respondent authorities is provided in Annex 1.

Of the 33 non-FSB jurisdictions that have responded, six did not submit the questionnaire template and were excluded from the analysis for consistency.[11] Only a limited number of jurisdictions, mostly FSB jurisdictions, submitted quantitative information on exposures.

The limitations of the questionnaire should be observed in interpreting the analysis. In terms of coverage, the analysis is based on the 57 responses that were received, out of the close to one hundred jurisdictions that had been invited to take part in the questionnaire. The completeness and level of detail of the submitted responses also vary across jurisdictions, which in part reflects authorities' varying stages and/or abilities to assess and analyse different transition-related issues, depending on jurisdiction-specific factors. For jurisdictions that have not identified any significant risks on transition, it may be due to insufficient information available to support a definitive judgment.

The analysis of the responses groups LIBOR jurisdictions (the five LIBOR jurisdictions, considering euro area jurisdictions together as one), Non-LIBOR FSB jurisdictions, and Others (Non-FSB, Non-LIBOR jurisdictions).[12]

The breakdown of jurisdictions is as follows. A detailed breakdown could be found in Annex 2:

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[10] Including the European Central Bank (ECB), the Bank of Central Africa (BCEAO) and the Group of International Finance Centre Supervisors (GIFCS).

[11] The six jurisdictions are Belgium, Czech Republic, GIFCS, Honduras, Luxembourg, Ukraine. A few jurisdictions completed part of the questionnaire that is related to FSB only: Guatemala, India, Macao.

[12] Of the LIBOR jurisdictions, both Japan and euro area jurisdictions have their equivalent IBORs. Japan has TIBOR, while EUR LIBOR is not widely used since the key EUR benchmark is EURIBOR. Euro area jurisdictions are counted as one and include ECB, Austria, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal and Spain.

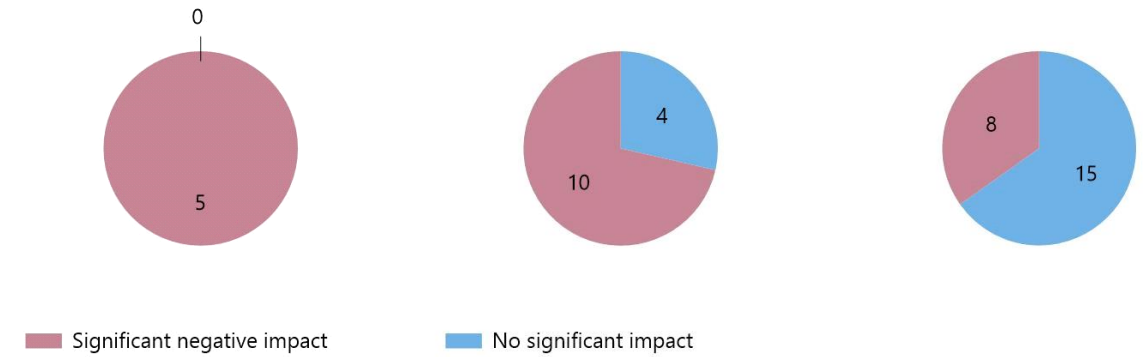
	FSB	Non-FSB	Total
LIBOR	5	-	5
Non-LIBOR	14	23	37
Total	19	23	42

3. Main observations on exposure to LIBOR transition

Most FSB jurisdictions, including all LIBOR jurisdictions, said that without adequate preparations the discontinuation of LIBOR would have a significant negative impact on FIs and non-FIs, and hence highlighted the importance of adequate preparations. Some jurisdictions mentioned potential impacts on both domestic and global financial stability absent adequate efforts to ensure a smooth transition. A more detailed description of the risks from LIBOR transition emerging from the responses to the questionnaire is provided in section 6.

Potential negative impact of discontinuation of LIBOR on FIs and non-FIs

Number of jurisdictions **Graph 1**



LIBOR jurisdictions: European Union, Japan, Switzerland, the United Kingdom and the United States. Non-LIBOR FSB jurisdictions: Argentina, Australia, Brazil, Canada, China, Hong Kong, India, Indonesia, Mexico, Russia, Saudi Arabia, Singapore, South Africa, South Korea. Other jurisdictions: Armenia, Brunei, Botswana, Colombia, Costa Rica, Denmark, Guatemala, Hungary, Iceland, Jordan, Macao, Morocco, Malaysia, Nigeria, Paraguay, Peru, the Philippines, Poland, Sweden, Thailand, the United Arab Emirates, Uruguay and the Central Bank of the West African States.

Source: Survey's responses.

Non-FSB jurisdictions were much less likely to foresee significant risks, primarily due to LIBOR's less frequent use in their financial systems, although this was not universal and in many cases neither qualitative nor quantitative data was being collected.

Several non-FSB jurisdictions were still in the process of completing their assessment, so were unable to give a definitive assessment of the risks arising from LIBOR exposures in their jurisdictions.

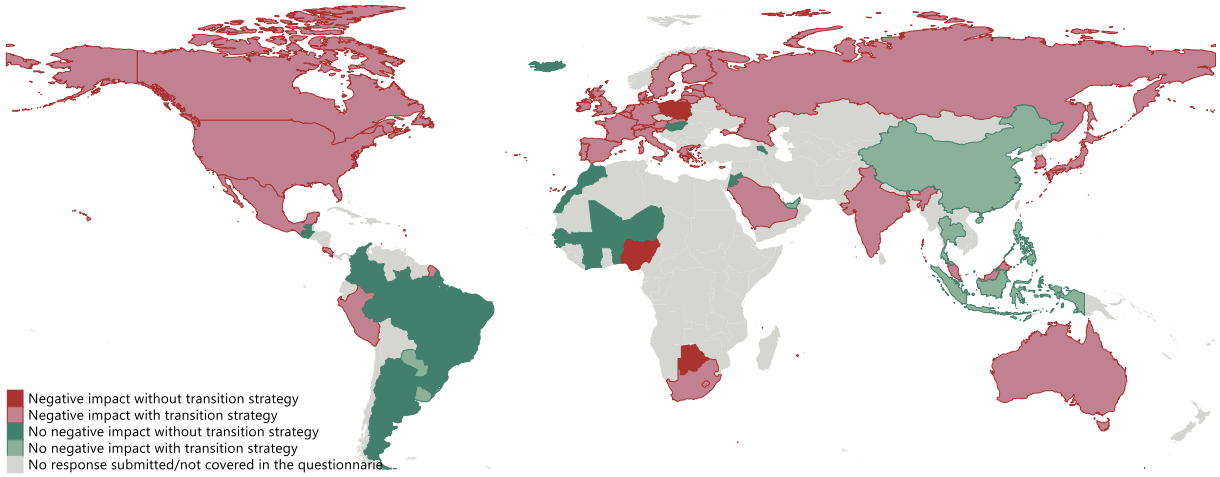
Respondents noted that low overall exposures to LIBOR do not always indicate low levels of risk. Many jurisdictions noted that while overall exposures to LIBOR were not significant, some key market participants have substantial exposures and that a disorderly transition could spillover to the other local FIs and non-FIs. One jurisdiction noted that, regardless of the size of exposures, operational changes need to be completed to move to alternative reference rates.

4. Main observed trends in monitoring LIBOR transition

4.1. Transition strategy

Most FSB jurisdictions have a strategy in place to address LIBOR transition, as opposed to only half of the non-FSB jurisdictions. Almost all (21 out of 24) FSB jurisdictions reported having plans in place for transition. For some non-LIBOR jurisdictions, particularly the regional financial centres globally, LIBOR exposures can be significant. These centres have in general started preparations to put transition plans in place. Those without plans reported their FIs and non-FIs as having little exposure to LIBOR. Of non-FSB jurisdictions, about half of the respondents reported having a strategy in place. Of those without a strategy, six jurisdictions are currently considering their next steps. Two jurisdictions noted that local subsidiaries and branches are waiting for decisions to be made by their parent companies.

Discontinuation of LIBOR – significant negative impact on FIs and non-FIs and strategies **Graph 2**

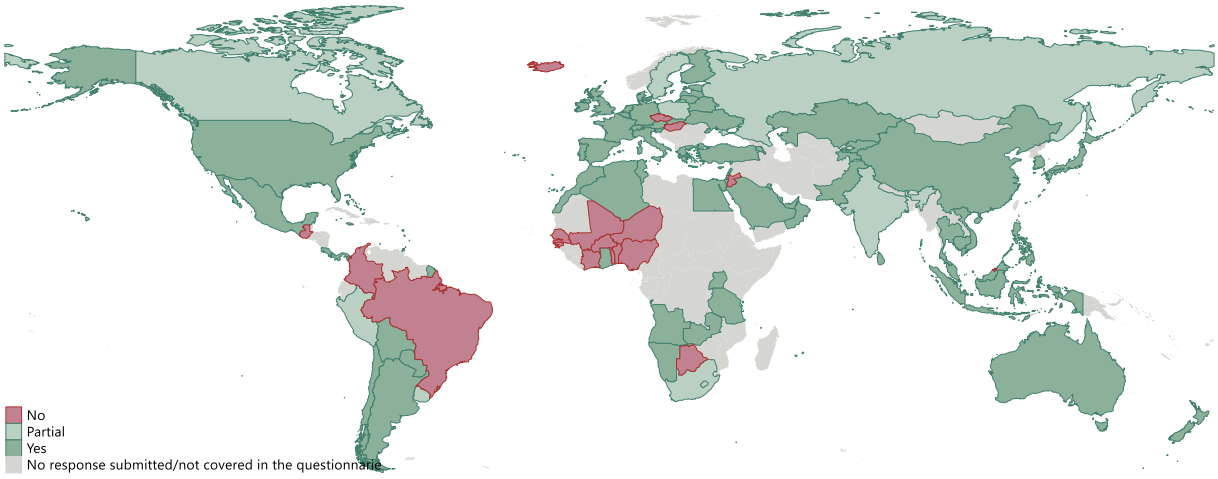


Source: Survey's responses

Transition plans typically included: improving awareness and providing guidance to market participants, monitoring transition progress, outlining responsibilities and expectations with market participants, holding regular meetings with those with the greatest exposures, coordination of NWGs, and coordination with other domestic and international bodies.

The large majority of authorities in both LIBOR and non-LIBOR jurisdictions have in any case initiated forms of supervisory engagement on LIBOR transition issues. Most jurisdictions regularly engage with FIs on LIBOR transition issues and have issued some form of supervisory communication (such as letters, circulars, statements or guidelines) to FIs to remind them of the need for transition and call for action. A limited number of jurisdictions neither engage regularly with FIs on LIBOR transition issues nor have issued any form of supervisory communication.

Supervisory engagement **Graph 3**



Yes = jurisdictions that have regularly engaged with FIs on LIBOR transition issues **and** have issued some form of supervisory communication (such as letters, circulars, statements or guidelines) to FIs to remind them of the need for transition and call for action. Partial =Jurisdictions that regularly engaged with FIs on LIBOR transition issues **or** have issued some form of supervisory communication, **but not both.** No = Jurisdiction that **neither** engage regularly with FIs on LIBOR transition issues **nor** have issued any form of supervisory communication.

Source: Survey's responses

4.2. Transition monitoring

All LIBOR jurisdictions have taken a systematic approach to collecting information about FIs progress on LIBOR transition via data requests. Generally, authorities in LIBOR jurisdictions have gathered data to monitor LIBOR exposure from a wide scope of FIs. They have then focused on the largest banks, for example by requesting transition plans. One authority specifically focused its actions on those institutions with the largest exposure.

Non-LIBOR jurisdiction authorities have typically taken a more ad hoc approach via surveys or as part of regular supervisory engagement and industry roundtables. Most non-LIBOR jurisdictions have focused on major banks and not collected data from all banks in their jurisdiction. Few LIBOR and non-LIBOR jurisdictions are monitoring asset managers, hedge funds and other securities firms.

In 10 jurisdictions (seven of which are FSB jurisdictions) authorities have directly engaged with financial institutions other than banks and insurance companies (e.g. pension plans and capital markets entities).[13] Additional quantitative analysis from engaging with market infrastructure has been limited.

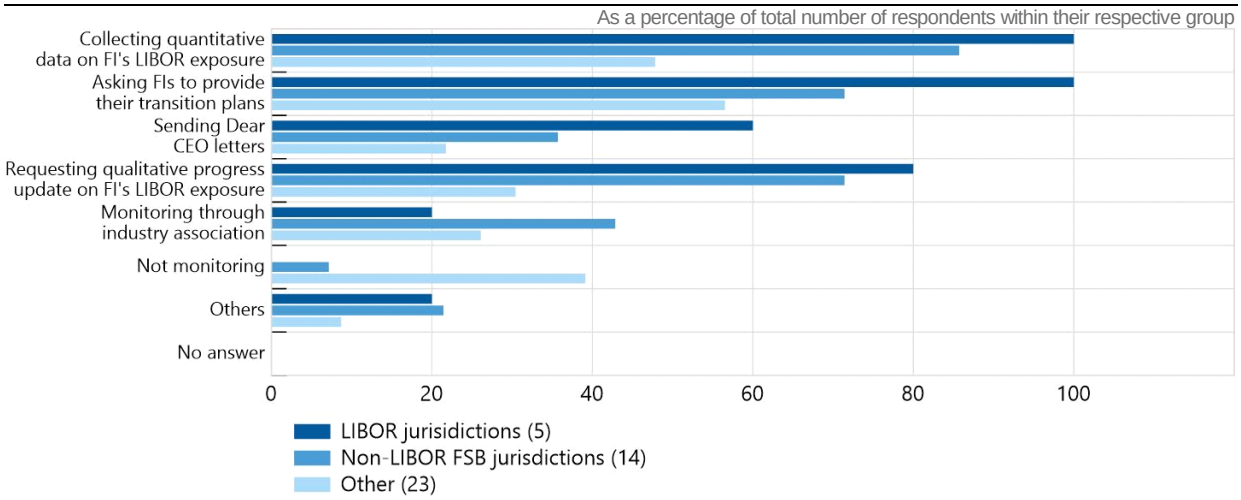
Three jurisdictions asserted that frequency of data collection from FIs was likely to increase towards the end of 2021.[14] A few jurisdictions indicated they were planning or considering starting collecting data.

[13] One of the authorities is from a jurisdiction within the euro area.

[14] Two of the authorities are from jurisdictions within the euro area.

Monitoring status of the progress of FIs on LIBOR transition

Graph 4



Number of jurisdictions in each group are shown in parentheses.

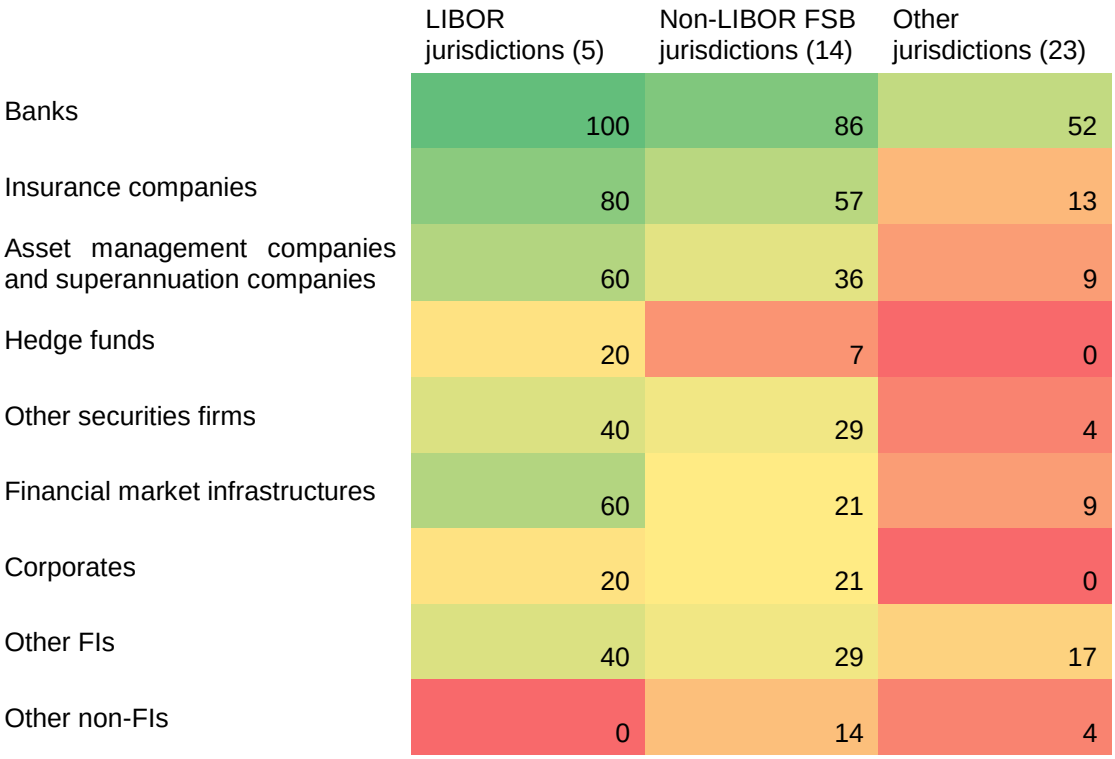
Source: Survey's responses

Non-FIs are significantly less likely to be monitored than FIs by all groups of respondents. The small amount of engagement that has taken place with non-FIs has been almost exclusively within FSB member jurisdictions, although some authorities stated that they were gaining information on non-FIs via their engagement with financial institutions.

The efficacy and data quality varied across jurisdictions. While only one FSB jurisdiction has not conducted any monitoring activity, around half of non-FSB jurisdictions surveyed reported that they were not collecting quantitative data on the progress FIs are making. Some of these surveys were relatively dated (a couple were conducted prior to 2019) and some were based on voluntary contributions. Several respondents noted quality issues in the data they received including concerns about cross-firm data consistency and appropriate reporting of cross-currency exposures.

Entities (FIs and non-FIs) covered in the data collection exercise

As a percentage of total number of jurisdictions within each group **Graph 5**



Number of jurisdictions in each group are shown in parentheses.

Source: Survey's responses

4.3. Data collection by authorities

Most jurisdictions reported gathering data on exposures to both LIBOR and key local IBORs and RFRs (e.g. EURIBOR and EONIA for countries in the euro area and THBFIX in Thailand), although some jurisdictions reported only gathering data on LIBOR exposures at this point. Coverage of products was broadly homogeneous (derivatives, loans, bonds and deposits), with some level of tailoring for different product types. Only two jurisdictions were not collecting product-specific information. More than a third of the jurisdictions collecting information in total have differentiated within their data collection between those products maturing before and after 2021.

The surveys undertaken by jurisdictions were tailored to their individual needs, making generalisations on the data difficult. The surveys are, or will be, also used by local authorities to assess bank risk and the adequacy of their action plans. A couple of respondents pointed out that the act of collecting data was, by itself, valuable in raising awareness and may be an impetus for undertaking transition work. It was also noted that some FIs had not yet fully identified all the contracts that had potential exposure to LIBOR (especially on a group wide level) at the time the data was collected. Additionally, data requested might not have been interpreted and aggregated consistently.

The level and depth of responses was very uneven. In contrast to other jurisdictions where more limited data was collected, one jurisdiction solicited detailed information on exposures broken down by currency, product-type and maturity, as well as information on plans to amend legacy contracts, risk assessment, mitigation plans. This jurisdiction also collects information on governance plans such as the name of the accountable senior manager and transition plans spelling out working groups, timelines, deliverables and dependencies.

While data collection has been uneven, respondents generally plan on more frequent surveys, more in-depth questions and more active engagement going forward.

4.4. Evidence on LIBOR exposures

The questionnaire asked respondents to provide data on FIs and non-FIs exposures to LIBORs and RFRs. Where such data was available, respondents were asked to report estimates of the gross exposure to both LIBORs and RFRs across over-the-counter (OTC) and exchange-traded derivatives, bonds and securitisations, a number of loan types, as well as different categories of liabilities. These data were provided on a "best efforts" basis, and at an aggregate level.

Although these data are not complete, they provide evidence for some of the key themes discussed in this report. Consistent with the higher levels of concern expressed in other parts of the survey, Graph 6 shows that estimated asset and liability exposures to LIBORs are reported to be highest in the LIBOR jurisdictions.[15] Exposures to USD LIBOR are fairly high in the non-LIBOR FSB jurisdictions, and exposures to LIBORs are relatively smaller outside of the FSB jurisdictions. The derivatives exposures to LIBOR exhibit a similar pattern. However, the reported aggregate derivatives exposures are not shown in this report because they are likely subject to double counting, as separate jurisdictions may report the same cross-border derivative exposure.

The proportion of assets, liabilities, and derivatives reported to mature after 2021, the expected end date for LIBOR, are shown in Graph 7. As indicated, there is a range across products and jurisdictions within each group, but the median exposure ratio suggests that roughly 40-50% of assets and derivatives exposures are expected to mature after 2021 while the maturity structure of liabilities is reported to be somewhat shorter in most cases. The fact that a considerable portion of the exposures will mature after 2021 emphasises the importance of incorporating robust fallback language into existing contracts (e.g. adherence to ISDA's protocol to amend legacy derivatives to incorporate such language) and develop products referencing RFRs so that these exposures do not continue to grow.

Other sources of data confirm some of these basic conclusions. As shown in Graph 8 and 9, data from Bloomberg for debt securities also show that exposures to USD LIBOR are the largest globally, and that there is a significant tail of exposures that mature past 2021.

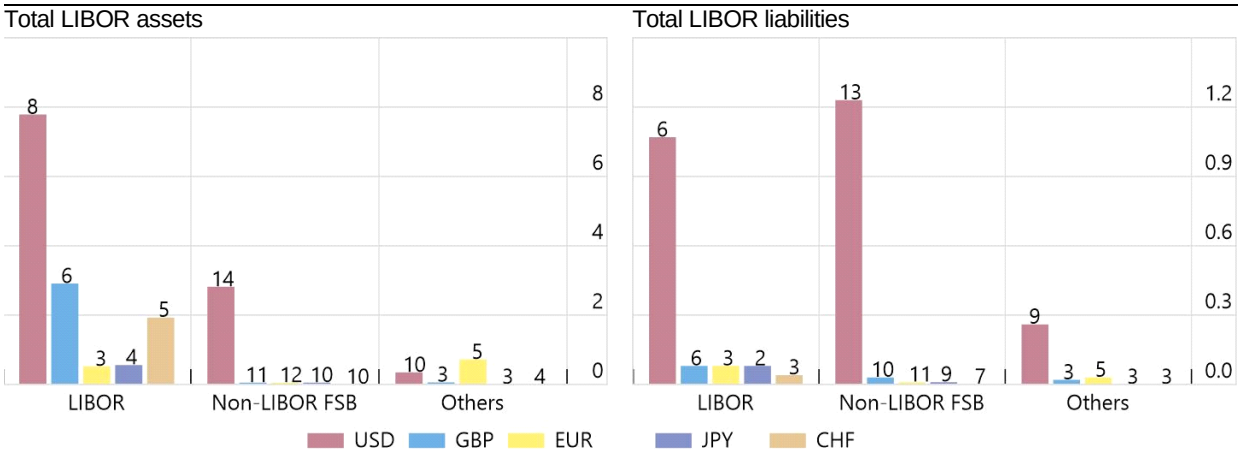
It should be noted that there are clear gaps in the data collected. As shown in Graph 7 (bottom right panel), a number of jurisdictions did not report exposures or only provided partial answers,

[15] For certain jurisdictions, total exposure was provided without a breakdown by currency.

which makes aggregation and a consistent picture across jurisdictional groupings more difficult. While the lower exposures outside of the FSB jurisdictions provides comfort in terms of potential issues related to LIBOR transition, it may also be the case that some jurisdictions had not measured their LIBOR exposures. Additionally, most jurisdictions were unable to provide information on the fallback language in legacy LIBOR contracts.

Total LIBOR exposure by jurisdiction grouping and by assets and liabilities

In trillions of euros **Graph 6**



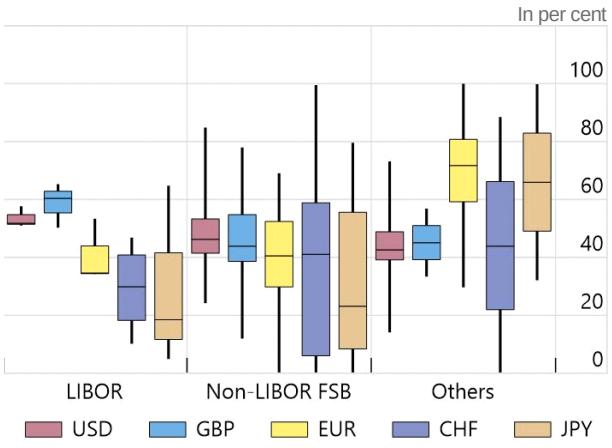
Above each bar is the number of jurisdictions included in that group. Data were aggregated across jurisdictions without adjusting for double counting. For certain jurisdictions, total exposure was provided without a breakdown in currencies.

Source: Survey's responses

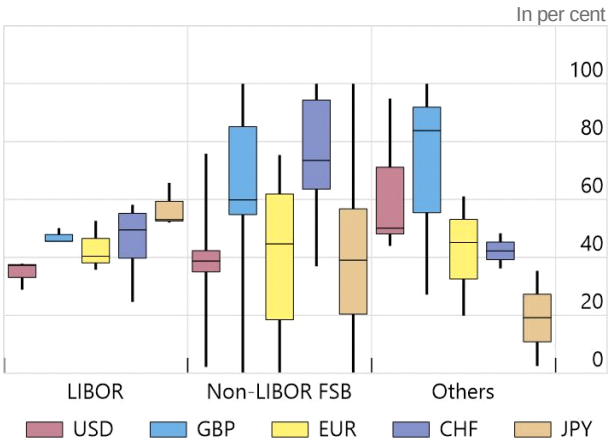
Distribution of the ratios of post-2021 LIBOR exposure to total LIBOR exposure by jurisdiction and data submission completion

Graph 7

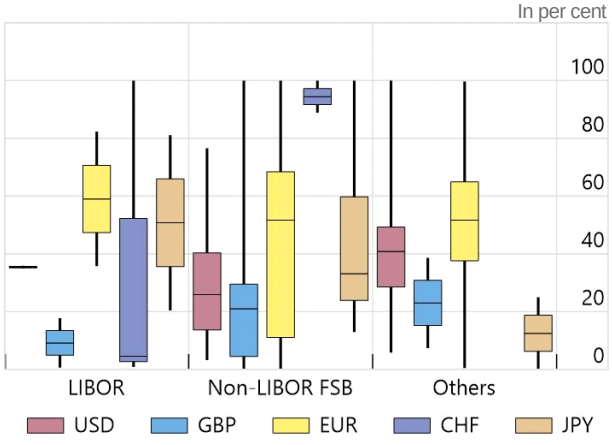
Post-2021 Ratio – Assets[1]



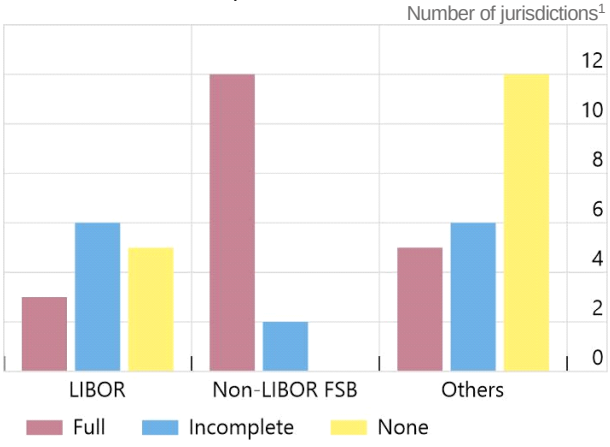
Post 2021 ratio – Derivatives[1]



Post-2021 Ratio - Liabilities[1]



Data submission completion[2]

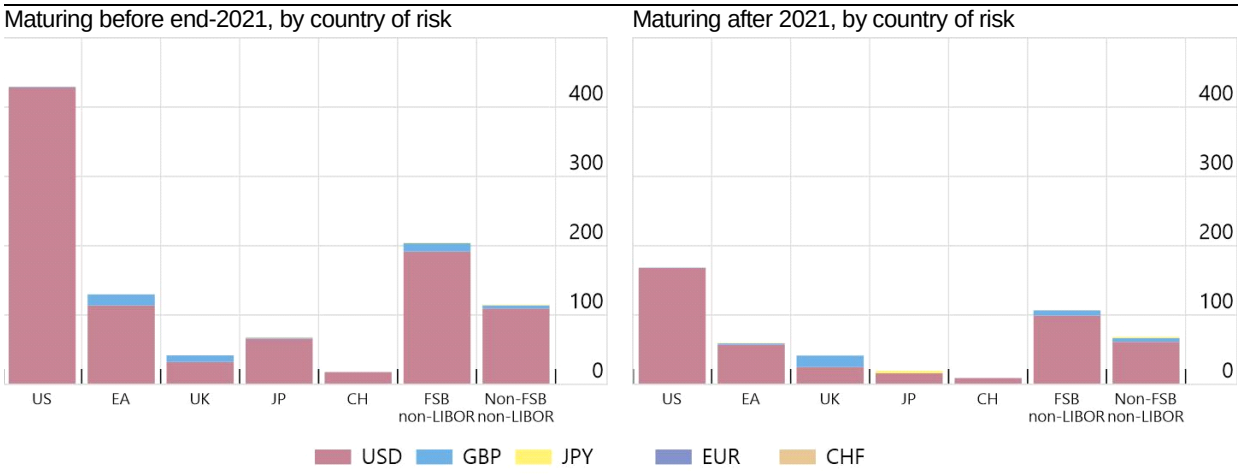


[1] Box plot showing the distribution of the ratios of post-2021 to total LIBOR exposures for each jurisdiction grouping and currency. A box is drawn from the group's first quartile to the third quartile. The horizontal line in the box is the median of the group. The top of the vertical line above the box is the maximum of the group, and the bottom of the vertical line below the box is the minimum. Ratios larger than 100% have been removed. [2] A full submission was when a jurisdiction's submission consisted of Asset, Derivatives and Liability data for both the total and maturing post-2021 exposures. Euro area jurisdictions are counted individually, thus there are more than five jurisdictions under the LIBOR category.

Source: Survey's responses

Outstanding amount of floating rate notes referenced to LIBORs

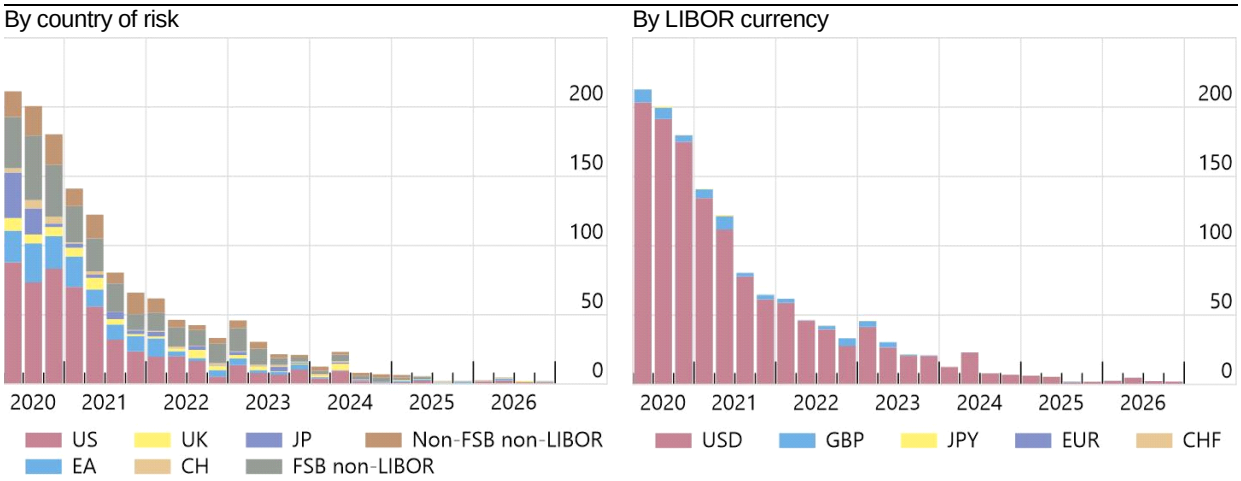
In billions of US dollars **Graph 8**



Sources: Bloomberg; FSB calculations. Country of risk of the bond is the issuer's country, according to the Bloomberg methodology for establishing the "country of risk" for public companies.

Maturity profile of floating rate notes referenced to LIBORs

In billions of US dollars **Graph 9**



Sources: Bloomberg; FSB calculations. Country of risk of the bond is the issuer's country, according to the Bloomberg methodology for establishing the "country of risk" for public companies.

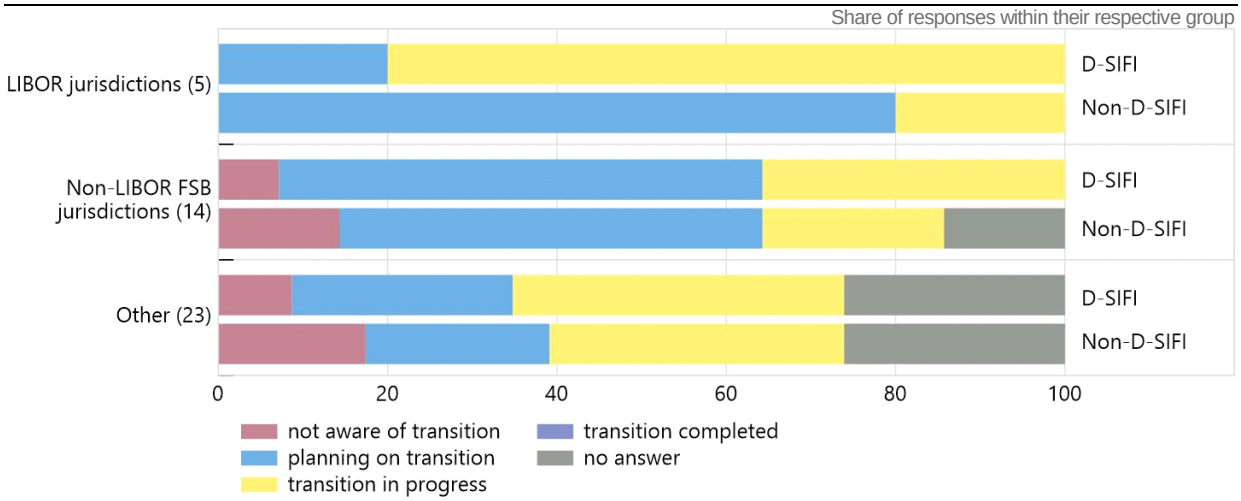
5. Progress made on LIBOR transition

5.1. Financial institutions' awareness and readiness to LIBOR transition

FIs in LIBOR jurisdictions have shown better progress in transition than those in non-LIBOR jurisdictions. While FIs in non-LIBOR jurisdictions are aware of the need to transition, with many either planning to transition or progressing in transition, there is a wider range in the level of preparedness. The five LIBOR jurisdictions indicated that FIs are planning for, or making progress on, LIBOR transition. Nonetheless, authorities have raised concerns over the lack of concreteness in FIs' transition plans and the slow pace of transition. By comparison, of the 37 non-LIBOR jurisdictions surveyed – including both FSB

and non-FSB jurisdictions – three indicated that FIs are not aware of the need for transition or that authorities are gathering information on the progress of transition. Six jurisdictions considered LIBOR exposure of FIs immaterial, and thus did not provide any information. Overall, FIs in non-LIBOR jurisdictions with developed banking and financial services industries are making better progress than those without.

Status of FIs' awareness of, and preparedness for, LIBOR transition **Graph 10**



Source: Survey's responses

The high degree of heterogeneity in FIs' preparedness could be attributed to a number of factors. In general, larger FIs with greater LIBOR exposure are more aware of, and prepared for, the transition, while smaller FIs with less material LIBOR exposures are adopting a wait-and-see approach. FIs with multiple-currency balance sheets or greater exposure to cash products are lagging due to complexities in the transition process. By types of FIs, banks generally show a higher degree of awareness and preparedness than other types of FIs. Institutional and buy-side investors tend to rely on market makers for making available new financial products to facilitate transition. In non-LIBOR jurisdictions, foreign-owned FIs are more prepared for the transition, given the mandates from their headquarters and parent companies.

In practice, FIs across jurisdictions that are aware of the need for transition are at various stages of establishing and documenting internal process as well as associated organisational structures. The largest FIs in LIBOR jurisdictions mostly have established, or are in the process of establishing, transition teams. Larger FIs in non-LIBOR jurisdictions exhibit a similar trend, while some jurisdictions note that the transition teams at foreign-owned FIs are subject to group level strategy. While a majority of the jurisdictions have not collected information on transition budget and resources of FIs, information from jurisdictions who responded indicates that transition team size could range widely from 2 to 250 members, and have a current total budget from US$30 million to over US$100 million, depending on the size and exposure of the FIs.

Authorities are expecting FIs to make significant progress in 2020. For instance, the publication of the ISDA amendments and protocols in 2020 is likely to accelerate the transition of derivatives contracts. On the other hand, authorities hold divergent views on whether adequate transition progress will be made by end-2021, depending on such factors as market

liquidity of RFR-referenced products and other obstacles including the lack of forward-looking term rates for cash products, lack of awareness of, and adaptation by, FIs' clients, and the absence of standardised contracts for collateral agreements. Concerns have also been expressed on whether it is possible to fully identify all existing loan contracts referencing LIBOR with customers given incomplete data in IT systems.

5.2. Financial institutions' engagement with customers and clients' status of preparedness

In general, FIs viewed their clients to have demonstrated relatively slower progress towards transition as compared to themselves. Among these clients, the larger and more sophisticated ones with greater LIBOR exposure tend to be more prepared for the transition. FIs generally recognise the importance of raising the awareness of their non-FI clients on benchmark transition. This is being done through training, client outreach and communication programmes. In all LIBOR jurisdictions, non-financial corporates or corporate treasury associations are commonly represented in industry working groups on benchmark transition.

FIs in most FSB jurisdictions have started working with their non-FI clients, in particular, those with large exposures, to address and mitigate the issues arising from transition, mainly through the adoption of fallbacks, making the required changes to IT systems and starting to offer new products that reference RFRs. To facilitate the transition of existing exposures, FIs are working to adopt ISDA's revised fallbacks for derivative products. In one jurisdiction, through its consent solicitations mechanism FIs and non-FIs have also begun to voluntarily change or replace the existing LIBOR rate with an alternative rate in legacy floating rate note and bond contracts.[16]

FIs in LIBOR jurisdictions are identifying, monitoring and addressing conduct risks arising from the transition, while those in many non-LIBOR jurisdictions are less aware of such risks and accord greater priority to financial, legal and operational risks.

6. Major transition challenges and risks

From a microprudential perspective, the key concerns related to LIBOR transition are in terms of operational risks; legal risks; prudential risks; conduct, litigation, and reputational risks; hedging risks; and accounting risks. From an operational perspective, which is commonly cited as a transition risk, the adoption of alternative reference rates entails important adjustments to risk management processes and systems. While some of these adjustments can be done internally by FIs, systems are also provided by external suppliers. Delays to updates could have significant implications for the ability to transition smoothly. Annex 3 describes these risks in more detail**.**

[16] Consent solicitations refer to a market-based process generally set out in bond documentation, which enables an issuer to amend bond conditions by way of bondholder consent. Consent solicitation can allow for an issuer to actively transition a bond from referencing LIBOR to a replacement rate before fallback provisions are triggered. In the UK, active transition has made good progress in sterling Floating Rate Notes and bond markets, and a statement has been released by the RFR working group with a list of considerations based on successful transitions to encourage consent solicitations. In some jurisdictions, such as in the US, unanimous consent is required.

From a system-wide perspective, the uncertainty about the future of LIBOR as we get closer to the end-2021 could increase macroprudential risks from heightened volatility or disorderly markets as users are unable, unaware or unwilling to move to the new benchmarks.

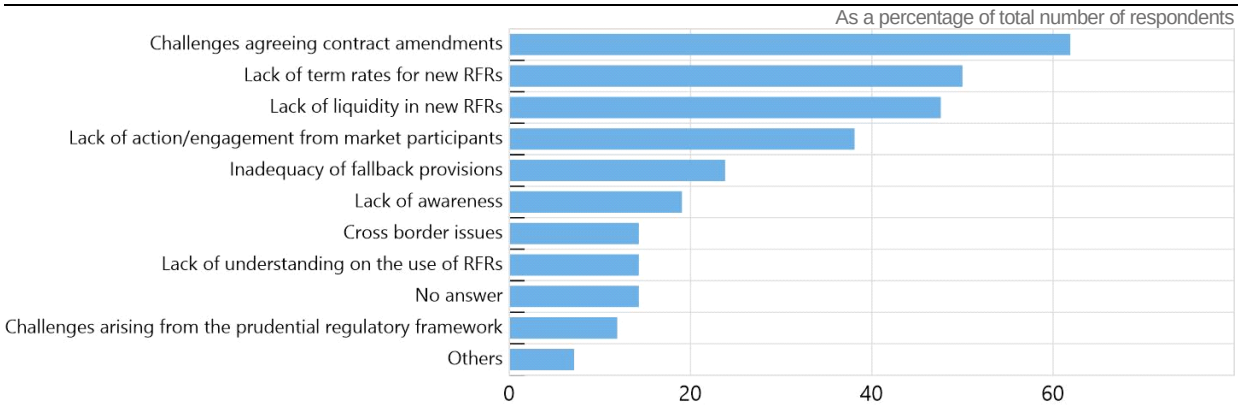
Six jurisdictions have identified certain types of LIBOR exposures which cannot be transitioned or which will be very difficult to transition. Four of these jurisdictions mentioned high consent thresholds for amendments of terms in legacy cash products such as floating rate notes and securitisations as being a barrier. One LIBOR jurisdiction mentioned that its NWG is considering proposing legislation that would create "safe harbours" for firms that transition these cash products using fallbacks that have been recommended by the NWG. Another LIBOR jurisdiction mentioned that its NWG has set up a task force specifically dealing with "tough legacy" exposures that cannot be transitioned. This task force has produced an assessment by asset class of whether there was a case for legislative intervention.

The most commonly cited measure to mitigate exposures that cannot be transitioned was the expectation of legislative action at the national or, where applicable, supranational level. Two respondents pointed out that successful legislative action cannot be guaranteed. Two jurisdictions mentioned that they expect centrally-cleared derivatives contracts to be able to transition away from LIBOR due to action by central counterparties. One of these jurisdictions pointed out that market participants are expecting further clarity as regards margining and central clearing requirements for OTC derivatives that have been amended solely for benchmark transition purposes. One jurisdiction mentioned that it also expects wide adherence by the derivatives market to the ISDA protocol.

The majority of jurisdictions however did not or could not identify LIBOR exposures that were impossible to transition, although a few jurisdictions noted that they were still investigating the situation. Many jurisdictions noted that they expected to get more clarity on this point in the future as they continued to engage with firms and collect data. One jurisdiction noted that as banks engaged with borrowers on incorporating fallback provisions, it would become clearer whether any exposures could not be transitioned. Non-FSB members also generally responded that there were no exposures which could not be transitioned but – compared to the FSB members – there were also relatively more who were still assessing the situation. Some respondents singled out specific challenges, for example the difficulties of renegotiating existing mortgage contracts.

Lack of liquidity in new RFR products and the uncertainty of when sufficient liquidity will be achieved make it difficult to motivate market participants to shift to RFRs. FIs have raised concerns about their ability to adopt alternative reference rates for new contracts due to insufficient market liquidity as well as low client demand for products referencing RFRs.

Main obstacles to a successful transition for FIs **Graph 11**



Source: Survey's responses.

The adoption of alternative rates, including rates compounded in arrears rather than forward-looking, depends on the offering of concrete alternatives by financial intermediaries and by client willingness to adjust.[17]

For derivative contracts, FIs are awaiting the finalisation of the ISDA fallback language and largely plan to adopt the ISDA protocol for the alternative reference rates. For cash products, many jurisdictions raised concerns about the complexity of incorporating robust/standardised fallbacks into existing (legacy) contracts that do not have them, and the required operational readiness to facilitate their use. For some FIs, the ability to determine which legacy contracts are without fallback clauses is challenging given their large number of contracts. To help with this task, some institutions have implemented machine-learning techniques to search across contract terms. Another challenge in adopting fallback language is reaching agreement with clients on the revised contract terms. An evaluation by an authority in one FSB jurisdiction shows that only a small minority, ie. 10%, of the banking sector's total assets, total liabilities and total derivatives contracts referencing LIBOR and with maturity after end-2021 were considered to have adequate fallback provisions. In another FSB jurisdiction, the fallback provision coverage rate for domestic systemically important banks (D-SIBs) has been assessed at around 30%. Contractual law is also jurisdiction-dependent and may have implications on the viability of uniform treatment of fallbacks across jurisdictions.

In multi-rate jurisdictions it is more difficult to transition away from existing IBORs. Euro area jurisdictions indicated that their exposures to their local IBOR (EURIBOR) might actually be far greater than their LIBOR exposures.[18] The degree of difficulty in transitioning away from existing IBORs is dependent on the range of products and counterparties that are affected, as well as issues that may arise in a cross-border context. In addition, smaller multi-rate jurisdictions face difficulty in developing and maintaining sufficient liquidity in financial products across more than one benchmark. Nonetheless, several jurisdictions highlighted that some

[17] For example, The Term Rate Use Case Task Force of the UK Sterling working group 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. See The Working Group on Sterling Risk-Free Reference Rates (Jan 2020) *Use Cases of Benchmark Rates: Compounded in Arrears, Term Rate and Further Alternatives*

[18] EURIBOR has been reformed to meet the new European Benchmark Regulation (BMR) requirements, and therefore the index is BMR-compliant. RFRs work in the EU is focused on the development of fallback rates.

products are better suited to referencing RFRs, in line with the FSB's 2014 guidance, which may create some momentum for a transition away from local IBORs to RFRs in these jurisdictions. Some smaller FSB jurisdictions mentioned that large global banks moving away from submitting data to the key global IBORs might at the same time decide to stop contributing to other IBORs. Finally, several jurisdictions noted that there was no current need either to stop publishing or to transition away from their current IBORs. A list of alternative RFRs and IBORs directly linked to USD LIBOR across jurisdictions is presented in Annex 4.

A vast majority of bank supervisors still need time to assess banks' readiness. In addition, there have been **requests for assistance from bank supervisors in addressing the challenges and risks mainly in LIBOR jurisdictions and a few non-LIBOR FSB jurisdictions.** The industry asked for assistance in a number of areas, e.g. clarifications on regulatory and supervisory requirements, alignment in market conventions and fallback language, development of forward-looking term structure for alternative reference rates,[19] and coordinated efforts in enhancing market awareness and customer education. Less than half of the bank supervisors in other jurisdictions have received feedback from individual banks or industry groups about the challenges and risks in transition. This may be attributed to a lack of preparedness among the market participants or limited LIBOR exposures in some of these jurisdictions.

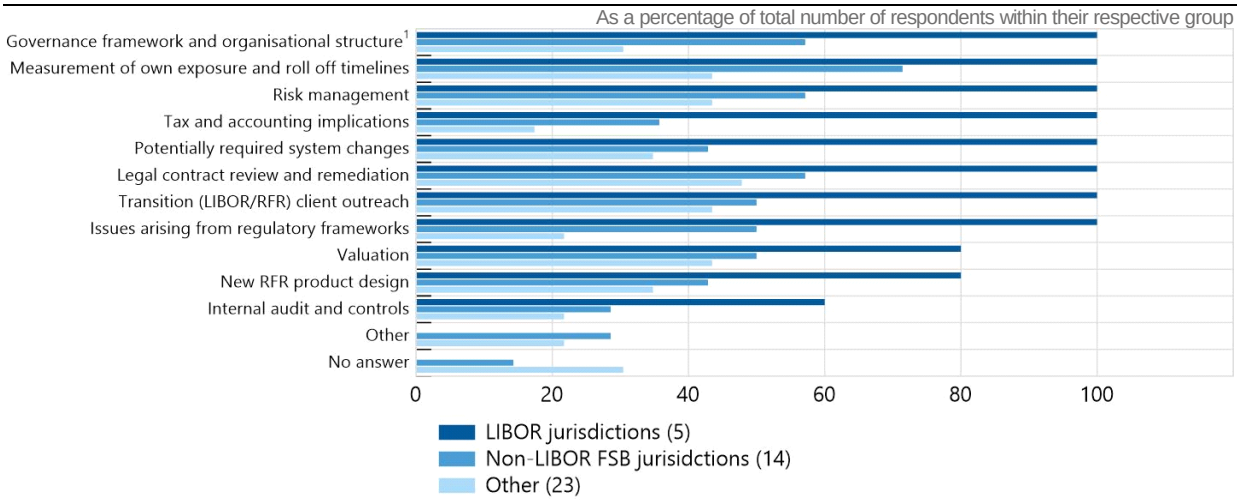
7. Supervisory actions and other initiatives

The majority of FSB members have issued supervisory communications and engaged with firms around LIBOR transition issues. Authorities have generally sought to leverage the impact of their engagement with the larger FIs by engaging via industry groups and publishing "Dear CEO" letters. The most commonly mentioned themes for supervisory engagement with firms were governance, measurement of own exposures, valuation, risk management, legal and transition client outreach.

[19] The FSB is of the view that firms undertaking their transition away from LIBOR should not delay their programmes until the emergence of possible forward-looking term versions of risk-free rates. Overnight RFRs are a more suitable alternative than a term RFR in the bulk of the cases where an IBOR is currently used. Further, in some jurisdictions, including some emerging markets, it may be difficult to implement the same approaches as those in economies with more developed RFR derivatives markets. (https://www.fsb.org/2019/12/reforming-major-interest-rate-benchmarks-progress-report-2/)

Areas of engagement with FIs and their management to discuss their transitions management

Graph 12



[1] Including having firm-level plan and allocation of resources.

Source: Survey's responses.

Very few jurisdictions had dedicated targets or transition timelines to industry (see Box 1 and Box 2 for examples), although several jurisdictions reported supporting the private sector to develop their own targets, either on a market-wide basis or for individual FIs. A number of jurisdictions said that they had not yet set targets or transition timelines, but would consider doing so in the future.

Box 1

The Working Group on Sterling Risk-Free Reference Rates' priorities and roadmap for 2020

On 16 January 2020, the Working Group on Sterling Risk-Free Reference Rates published its priorities and an updated roadmap for the year and clarify actions market participants should take to reduce LIBOR exposure and transition to alternative rates, including:

- Lenders being in a position to offer non-LIBOR linked alternative products to customers by Q3 2020, and lenders including contractual arrangements to convert new and re-financed LIBOR-referencing loans ahead of end-2021;
- Ceasing issuance of cash products linked to sterling LIBOR by end-Q1 2021;
- Throughout 2020, taking steps that demonstrate that compounded SONIA is easily accessible and usable;
- Take steps to enable a further shift of volumes from LIBOR to SONIA in derivative markets;
- Establishing a framework for the transition of legacy LIBOR products, in order to significantly reduce the stock of LIBOR referencing contracts by Q1 2021; and
- Considering how best to address issues around "tough legacy" contracts.

The Bank of England and FCA supported these objectives.

Box 2

Fannie Mae and Freddie Mac will no longer accept Adjustable-Rate Mortgages Based on LIBOR by the end-2020

On 5 February 2020, the Federal Housing Finance Agency (FHFA) announced that the government sponsored enterprises (GSEs) Fannie Mae and Freddie Mac will stop accepting adjustable-rate mortgages (ARMs) based on LIBOR by the end of 2020, and the GSEs' announced that they plan to begin accepting ARMs based on the Secured Overnight Financing Rate (SOFR) later in 2020.

The Alternative Reference Rates Committee (ARRC), which has recommended SOFR as the alternative to USD LIBOR, welcomed the FHFA's announcement via a press release.

With respect to supervisory engagement with banks in particular, authorities in LIBOR jurisdictions are more likely to have taken initiatives to support benchmark transition. LIBOR jurisdictions had already conducted specific transition exercises and self-assessments (see Box 3 for an example) and in most cases their plans currently involve updates of the previous exercises. Transition reviews typically aim at covering D-SIBs, global systemically important banks (G-SIBs) and local subsidiaries of G-SIBs. Most supervisors are informed on the transition stage of their major FIs, but have less coverage for smaller institutions.

Box 3

Publication of Survey on the Use of LIBOR (JFSA and Bank of Japan)

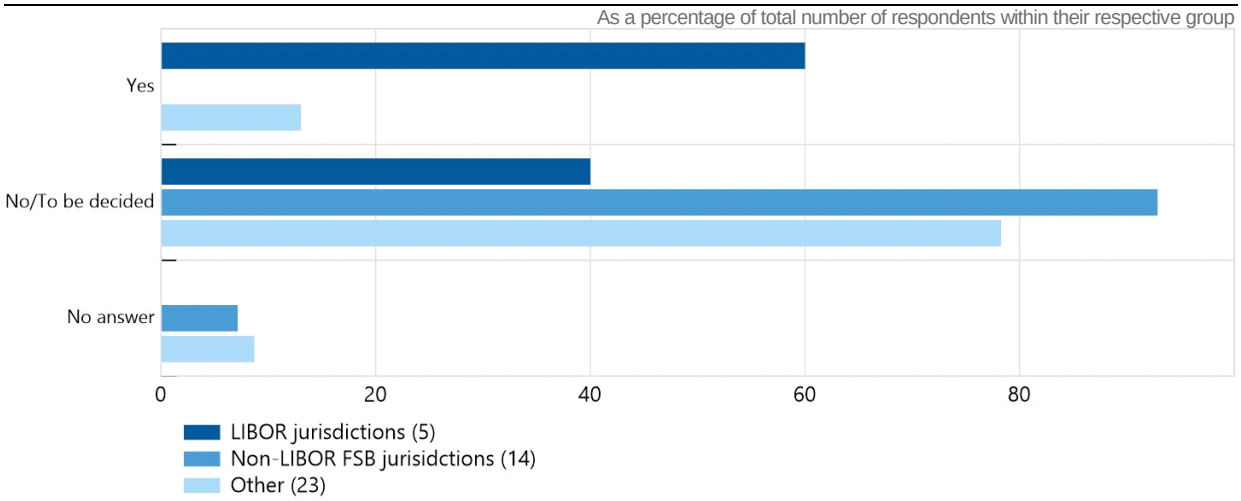
On 13 March 2020, the Japan Financial Services Agency and the Bank of Japan jointly published *Summary of Survey Results on the Use of LIBOR and Main Actions Needed*. The joint survey asked 278 financial institutions about their quantitative LIBOR exposures and their qualitative LIBOR transition progress. The JFSA and the BOJ expect this publication, including next steps for main action needed of LIBOR transition, will further promote the transition measures taken by each financial institution in a timely and smooth manner.

This survey is planned to be conducted regularly to follow up the progress and status of LIBOR transition.

Supervisory initiatives include sending "Dear CEO" letters to enhance awareness and preparedness of FIs, requesting or encouraging banks to set internal targets and deadlines for transitioning from LIBORs and carrying out desktop reviews or on-site examinations. A few supervisors have sent "Dear CEO letters" to FIs, and collected or are in the process of receiving data on the institutions' exposures to legacy contracts and products impacted by the LIBOR transition. The focus of desktop reviews or on-site examinations mainly covers transition plans, governance over the transition work, types and level of LIBOR exposures as well as progress of negotiation with counterparties on LIBOR-referenced contracts. Generally, major FIs have started taking steps towards transitioning by taking inventory of the legacy contracts and by including more robust fallback language in new contracts. However, FIs have notified their supervisors of key areas of uncertainty in transition, such as the finalisation of fallback language for legacy products (e.g. ISDA protocol for derivative products) and insufficient guidance on conduct risk. With respect to the smaller banks, some LIBOR jurisdictions highlighted the need to assess the extent of retail client involvement of these banks, which might trigger certain communication requirements and legal

risk mitigation actions. Additionally, there is a need to increase small banks' awareness such that they would not continue to increase LIBOR exposures.

Have banks been requested to set internal targets and deadlines for LIBOR transition? **Graph 13**



Source: Survey's responses.

By contrast, a lower proportion of authorities in non-LIBOR jurisdictions have carried out initiatives to facilitate and monitor benchmark transition. For example, only three out of 37 non-LIBOR jurisdictions have requested their banks to set internal targets and deadlines for the transition. While most authorities in non-LIBOR FSB jurisdictions also envisage follow-up actions on transition efforts, there is a split among those planning to conduct specific surveys or updates of existing exercises, and those who plan to follow up individually with financial institutions. For other jurisdictions monitoring actions are less structured and, where in existence, tend to be part of regular supervisory work.

Only a very small number of supervisory authorities are trying to directly evaluate the impact of the change from using LIBOR/IBOR to RFR on bank liquidity and regulatory capital. A number of FSB and non-FSB jurisdictions are instead requesting their banks to provide an assessment of the impacts.

Many, predominantly FSB, jurisdictions mention a number of available tools of increasing supervisory intensity to speed up transition in case the increased monitoring and scrutiny do not prove sufficient (see Box 4 for an example). In the first stage these would include meetings with banks' senior management, board of directors, and the issuance of non-binding best practices. More intensive measures may include on-site inspections, requests to improve operational capabilities (report requests and business improvement orders, risk mitigation plans, requirements to increase resources aimed at supporting transition). In exceptional circumstances, some jurisdictions pointed to the use of capital add-ons and restrictions on specific product offering, and finally administrative sanctions or other legal actions.

Box 4

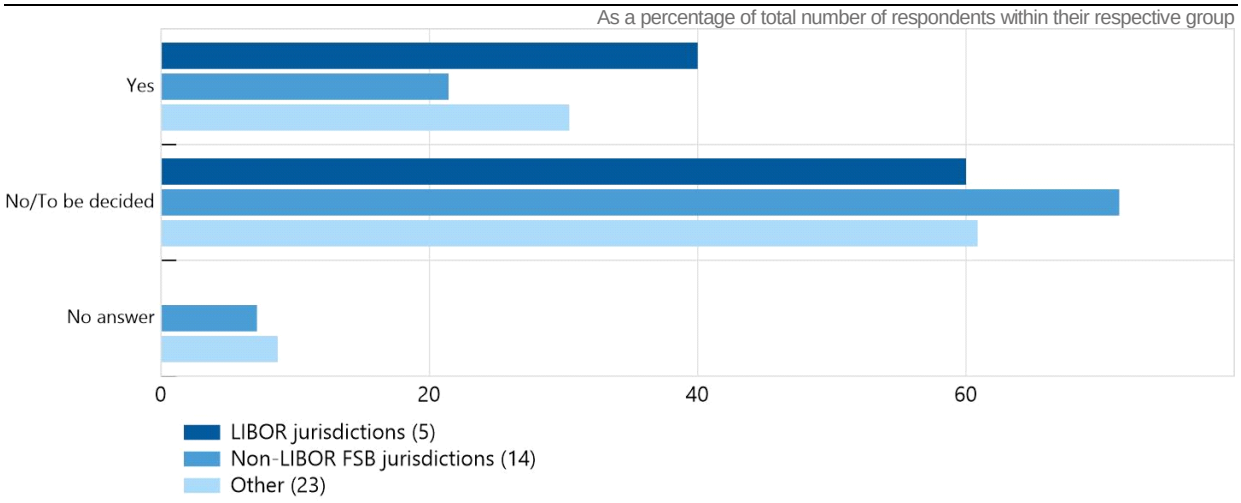
The Bank of England's (BOE) risk management approach to collateral referencing LIBOR for use in the Sterling Monetary Framework (SMF)

On 26 February 2020, the Bank of England announced the market notice details the BOE's policy with regard to collateral referencing LIBOR for use in the Sterling Monetary Framework.

The policy objective is to encourage forward planning by both the Bank and SMF members to ensure that borrowing capacity is maintained and that public money is appropriately protected against the risks of a disorderly LIBOR transition. The policy adopts a haircut glide path for all LIBOR linked collateral maturing after end-2021, that will be phased in from 1 October 2020 and result in haircuts being 100% by end 2021, at which point all LIBOR linked collateral will cease to be eligible for use in the SMF. Further, from 1 October 2020, newly issued LIBOR linked collateral will be ineligible for use in the SMF. The BOE considers that this approach should act as an additional incentive both to cease new LIBOR issuance in cash markets and to amend legacy LIBOR linked collateral.

Nonetheless, a majority of respondents, including those in LIBOR jurisdictions, have not decided on the supervisory actions to take against individual banks (for example the use of regulatory capital add-ons) if unsatisfactory preparatory work for benchmark transition is observed. They continue to evaluate the progress made by banks on transition and may make the decision on a case-by-case basis.

Will supervisory actions be considered if a bank's preparatory work for benchmark transition is not satisfactory? **Graph 14**



Source: Survey's responses.

Most FSB members, including all LIBOR jurisdictions, have already established official benchmark reform related working groups, while only a small number of non-LIBOR and non-FSB jurisdictions have done so. In LIBOR jurisdictions the focus of discussion is on the transition from LIBOR. However, in non-LIBOR and non-FSB jurisdictions the focus is on local currencies benchmark reforms.

8. Major supervisory challenges and areas for strengthened supervisory actions

In some cases, mostly in non-LIBOR and non-FSB jurisdictions, supervisors report that their engagement with FIs regarding LIBOR transition planning have just started. These supervisors are informed on the transition stage of their major FIs, but have less coverage for smaller institutions. In some jurisdictions, there is lack of clear, detailed information on FI and non-FI LIBOR exposures and an absence of transition plans.

Supervisory expectations on transition differ across jurisdictions. Expectations vary especially on legal and conduct risks arising from renegotiation of contracts, as well as for the acceptance of fallback clauses in contracts. For branches of multinational FIs, the transition will be driven by the head office and depends somewhat on the weight that regulators in the head-office put on the transition.

The timeline for transitioning from different products varies, making monitoring much more complex. Determining whether an institution is making sufficient progress thus depends on its portfolio of products and the size of its exposures. Transitioning to different fallbacks complicates the issue.

There is a lack of clarity regarding the readiness of external systems used by FIs and non-FIs. Both internal and external system changes could result in outages impacting clients and market functioning. Ensuring the continuity of FIs business operations and those of financial market infrastructures in light of the transition is considered a potential supervisory challenge. It is also difficult to identify and measure exposures and risks appropriately, particularly the indirect ones, arising from clients of regulated FIs.

Supervisors have a lack of insight into and communication with non-regulated clients of regulated FIs. Transitioning smaller end-clients away from LIBOR could be very resource-intensive and challenging in particular for smaller institutions. Educating these end-clients and facilitating a smooth amendment of contracts to new rates will be challenging. It could be costly for small, local institutions to prepare for transition, and so they are less incentivised to do so, particularly without clearly defined targets for the transition. While the risks for smaller end-clients are potentially lower, they still need to make adequate preparations. Supervisors will need to ensure institutions raise potential issues/problems early so that they can be addressed in a timely manner. In some jurisdictions supervisors may need to consider how they get involved in the transition process, so that there is sufficient public confidence that amendments are fair.

Supervisory capacity and resources may limit authorities' ability to monitor and ensure effective outreach to and awareness of all concerned entities. One respondent noted that the key challenge is ensuring effective outreach (and awareness) to all concerned entities given mandates and resources. Reputational risk to both FIs and authorities arising from substandard transition was also mentioned.

9. Areas for international cooperation

Responses from FSB/BCBS authorities, in both LIBOR and non-LIBOR jurisdictions, **identified legal, operational and other issues that could benefit from stronger cross-border coordination and cooperation.** The main issues identified include inconsistencies between jurisdictions in the timing and approaches towards transition, jurisdiction-specific uncertainties concerning cross-border contract laws and legal/regulatory frameworks, and FIs' concerns over potential regulatory barriers. Some responses noted that host supervisors would rely on the home supervisors' efforts to monitor transition progress, particularly in the case of authorities with a large number of foreign branches. The majority of responses of non-FSB/BCBS jurisdictions did not identify any specific issues at the time of the survey or were still in the process of gathering information from FIs and market participants.

The majority of responses indicated that cross-border cooperation to address transition issues in global banks would be useful and desirable. A number of FSB/BCBS jurisdictions nevertheless indicated that cross-border cooperation would depend on the nature of the issues, and may be particularly important in cases where there may be jurisdiction-specific impediments that relate to specific LIBOR exposures.

Several respondents mentioned the importance of the work of the standard setting bodies and of the FSB to facilitate LIBOR transition. The importance of the work being undertaken by the BCBS to consider whether changes are warranted to address certain regulatory issues was highlighted in several responses.[20] Others noted the importance of the FSB OSSG engagement with ISDA on contractual robustness, and with other stakeholders to overcome barriers to transition and raise awareness.

Cross-border supervisory cooperation would also be needed in cases where firms adopt a group-wide approach to the transition with its overseas subsidiaries and branches. For example, one non-FSB jurisdiction noted that subsidiaries in that jurisdiction would be waiting for their international headquarters to make decisions. A number of responses also suggested that supervisory colleges and international fora could also aide this cooperation. One LIBOR jurisdiction also recommended that expectations, timings and the use of tools by supervisors should be co-ordinated where possible to avoid unnecessary duplication. In particular, the use of supervisory tools that encourage reduction in the stock of legacy LIBOR contracts could be made more effective through international coordination. One FSB jurisdiction noted that aligning timelines would facilitate transition by addressing difficulties firms have mentioned regarding maintaining hedges and with multi- or cross-currency products.

A number of supervisory issues were identified by FSB/BCBS jurisdictions relating to cross-border LIBOR exposures. Information asymmetry between bank and non-bank entities, large international banks versus small banks were raised, placing a greater imperative

[20] In particular, responses highlighted the eligibility of capital instruments currently referencing LIBOR after the required amendments are executed, with some jurisdictions asking for further BCBS assessment in this regard. Responses also mentioned impacts on contractual recognition of bail-in and stay in resolution, as well as modelling challenges that may be relevant to counterparty credit risk, market risk and interest rate risk in the banking book, for instance as a result of reduced liquidity of LIBOR contracts. Subsequently, BCBS published a newsletter to clarify some prudential issues in February and a set of answer to frequently asked questions in June.

on supervisors to ensure that no particular groups of market participants benefit from transition at expense of less informed counterparties. Different timetables for implementation of RFR and spread calculations in different jurisdictions could make cross-border transitions difficult.

A large number of respondents (15 FSB/BCBS members) expressed the need for information exchange to share common challenges and best practices, for example on supervisory tools.

Several respondents noted the importance of collecting and exchanging information about firms' exposures. Supervisory colleges or bilateral discussions between home and host regulators were seen as useful places to have this discussion, as well as other international fora such as FSB, BCBS, and IOSCO. One jurisdiction suggested that there could be international agreement on standards to measure readiness to transition, to make it easier for supervisors to monitor progress in transition.

Several respondents think that communications and messages from international fora such as the G20, FSB, BCBS, IOSCO and the International Monetary Fund would be effective to raise the awareness of the industry as well as market participants. One LIBOR jurisdiction mentioned that coordinated, common international messages should be encouraged where necessary, to remove unintended obstacles to transition.

More generally, several respondents noted that coordination across jurisdictions is necessary to reduce divergence in product design and calculation conventions that could leave a patchwork of replacements that would be more difficult to value and risk manage.

Annex 1: List of responding authorities

FSB jurisdictions	
Argentina	Central Bank of Argentina (BCRA), Securities and Stock Exchange Commission of Argentina (CNV), National Superintendence of Insurance (SSN).
Australia	Australian Prudential Regulation Authority (APRA)
Brazil	Central Bank of Brazil
Canada	Finance Canada
China	People's Bank of China; China Banking and Insurance Regulatory Commission
ECB	ECB Banking Supervision
France	Autorité des Marchés Financiers – Autorité de Contrôle Prudentiel et de Résolution - Banque de France – Direction Générale du Trésor
Germany	Deutsche Bundesbank and BaFin
Hong Kong	Hong Kong Monetary Authority (HKMA), Securities and Futures Commission (SFC), Insurance Authority (IA) and Mandatory Provident Fund Schemes Authority (MPFA)
India	Ministry of Finance
Indonesia	Otoritas Jasa Keuangan (OJK) and Bank Indonesia (BI)
Italy	Banca d'Italia, IVASS, COVIP, CONSOB, Ministry of Economy and Finance
Japan	Japan Financial Services Agency (JFSA) and Bank of Japan (BOJ)
Korea	FSC (the Financial Services Committee); FSS (the Financial Superviory Service); BOK (the Bank of Korea)
Mexico	Mexican Financial Authorities
Netherlands	De Nederlandsche Bank (DNB)
Russia	Bank of Russia
Saudi Arabia	Saudi Arabian Monetary Authority
Singapore	Monetary Authority of Singapore
South Africa	South African Reserve Bank
Spain	Banco de España (BdE); the Spanish Market Authority "Comisión Nacional del Mercado de Valores (CNMV)"; and the Insurance Oversight Body "Dirección General de Seguros y Fondos de Pensiones (DGSyFP)"
Switzerland	Swiss National Bank; Swiss Financial Market Supervisory Authority FINMA
United Kingdom	Bank of England (BoE), Prudential Regulation Authority (PRA), Financial Conduct Authority (FCA) and HM Treasury (HMT)
United States	U.S. Treasury, Commodity Futures Trading Commission, Federal Deposit Insurance Corporation, Federal Reserve Board, Federal Reserve Bank of New York, Office of the Comptroller of the Currency

Non-FSB jurisdictions	
Armenia	Central Bank of Armenia
Austria	Financial Market Authority
BCEAO	The Central Bank of West African States
Botswana	Bank of Botswana
Belgium	National Bank of Belgium
Brunei	Autoriti Monetari Brunei Darussalam (AMBD)
Czech Republic	Czech National Bank
Colombia	Superintendencia Financiera de Colombia
Costa Rica	Central Bank of Costa Rica (BCCR); National Council of Financial System Supervision (Conassif)
Denmark	Danish Financial Supervisory Authority
Finland	Finnish Financial Supervision Authority
GIFCS	Group of International Finance Centre Supervisors
Guatemala	Superintendencia de Bancos
Honduras	Central Bank of Honduras
Hungary	Central Bank of Hungary
Iceland	Central Bank of Iceland
Ireland	Central Bank of Ireland
Jordan	Central bank of Jordan
Luxembourg	Commission de Surveillance du Secteur Financier
Macao	Monetary Authority of Macao
Malaysia	Central Bank of Malaysia/ Bank Negara Malaysia (BNM)
Morocco	Central Bank of Morocco
Nigeria	Central Bank of Nigeria
Paraguay	Central Bank of Paraguay
Peru	Superintendency of Banking, Insurance and Private Pension Funds
Philippines	Bangko Sentral ng Pilipinas (BSP)
Poland	KNF – Polish Financial Supervision Authority
Portugal	Autoridade de Supervisão de Seguros e Fundos de Pensões, Banco de Portugal and Comissão do Mercado de Valores Mobiliários
Sweden	Finansinspektionen, Swedish FSA
Thailand	Bank of Thailand
Ukraine	National Bank of Ukraine
United Arab Emirates	Central Bank Of The UAE
Uruguay	Superintendencia de Servicios Financieros BCU

Annex 2: Breakdown of jurisdictions

	FSB	Non-FSB	Total
LIBOR	• Euro area jurisdictions[21] • Japan • Switzerland • United Kingdom • United States		
	5	**-**	**5**
Non-LIBOR	• Argentina • Australia • Brazil • Canada • China • Hong Kong • India • Indonesia • Korea • Mexico • Russia • Saudi Arabia • Singapore • South Africa	• Armenia • Botswana • Brunei • Central Bank of West African States • Colombia • Costa Rica • Denmark • Guatemala • Hungary • Iceland • Jordan • Macao • Malaysia • Morocco • Nigeria • Paraguay • Peru • Philippines • Poland • Sweden • Thailand • United Arab Emirates • Uruguay	
	14	**23**	**37**
Total	**19**	**23**	**42**

[21] Euro area jurisdictions are counted as one and include ECB, Austria, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal and Spain.

Annex 3: Major LIBOR transition risks for financial institutions

- **Operational/systems risks** – Systems and processes must be updated for the entire end-to-end value chain for all products currently referencing LIBOR so that they can instead rely on alternative reference rates calculated under the compounded setting in arrears method, as well as to calculate and manage any fallback adjustments in order to prevent any operational disruptions. While some system risks can be addressed internally by FIs, there are systems that are reliant on external providers that will also need to adequately prepare for the transition. One jurisdiction noted that in cases where FIs have fallen behind in updating their systems they will potentially need a much longer timeline for the transition.
- **Legal risks** – If institutions do not adequately identify affected legacy contracts and implement robust fallbacks prior to LIBOR's discontinuation, significant legal risks could materialise. Contract frustration and counterparty litigation are key areas of concern, especially with regard to cash market products and long-dated contracts. This risk is compounded by the difficulty in identifying all potential legal exposures, as well as by the volume and complexity of potential contract amendments. Further, some bonds require a certain percentage of bondholders (100% in some cases) to consent to covenant modifications, making the transition of these instruments difficult. Contractual law is jurisdiction dependent and may have implications on the viability of uniform treatment of fallbacks in a cross-border context.
- **Prudential risks –** Institutions may find difficulties in managing market risks and calculating embedded gains or losses for margin requirements, and experience a range of capital impact issues in case pricing and valuation inaccuracies arise. Where interest rate models need to be developed and approved, institutions may face capacity constraints or a lack of historical data. At the same time as the LIBOR transition, FIs also face numerous other regulatory changes including the Fundamental Review of the Trading Book, benchmark regulations and global trade reporting requirements.
- **Conduct, litigation and reputational risks –** Several jurisdictions noted risks around conduct risk identification and management, especially with regard to the fair treatment of clients, potential conflicts of interests, mis-selling and misconduct. This could lead to potential class-action litigation in some jurisdictions. For example, some jurisdictions have pointed to this being especially an issue for mortgages referencing LIBOR.
- **Hedging risks** – Institutions with hedged positions may see different parts of these positions transition at different times or to different fallback rates. This may break hedges and leave institutions exposed to new basis risks. Market participants may also face increased hedging costs if liquidity remains low in the alternative RFRs.
- **Accounting risks –** If work to reform national and international accounting standards is not adequate or completed on time, there may be unintended impacts on accounting (e.g. with respect to hedging or profitability) or taxation.
- **Others –** In addition to these risks, jurisdictions noted that FIs face difficulties in communicating transition-related issues with clients (finding the right informational level, etc.) and in pricing instruments (particularly in the early stages of transition when liquidity in new instruments is low). Further, FIs and non-FIs face potential resource constraints.

Annex 4: Alternative RFRs and IBORs

Overview by geographical areas

NWGs or other bodies in all but five FSB jurisdictions have either already developed and/or recommended viable alternative RFRs or have begun the process of developing these types of rates (with two in the development stage) (Table 1 and 2). A majority of non-FSB jurisdictions (excluding those in the euro area) have no alternative RFRs and are not planning to develop one. Nonetheless, seven non-FSB jurisdictions are in various phases of trying to develop an alternative RFR, with three expecting to start publishing one sometime in 2020 (see Table 2). One jurisdiction noted that they are developing a domestic repo market to potentially facilitate the development of an alternative benchmark.

Table 1 – RFRs of FSB Jurisdictions

Jurisdiction	RFR rate	Status
Australia	Cash rate	Began publishing with new methodology in May 2016
Brazil	Selic rate	Transaction-based reference rate estimated by the Central Bank of Brazil since 1986.
Canada	Canadian Overnight Repo Rate Average (CORRA)	Published since 1997, new methodology to begin in June 2020
Euro area	Euro short-term rate (€STR)	Began publishing in October 2019
Hong Kong	Hong Kong Overnight Index Average (HONIA)	HONIA has been identified as the alternative RFR for HIBOR
Indonesia	Indonesian Overnight Index Average (IndONIA)	Began publishing in August 2018
Japan	Tokyo Overnight Average (TONA)	Identified in December 2016 and published by Bank of Japan
Mexico	Overnight Interbank Equilibrium Interest Rate (Overnight TIIE)	Launched in January 2020
Saudi Arabia		Market participants and regulatory bodies are currently working to develop Saudi Arabia's RFR
Singapore	Singapore Overnight Rate Average (SORA)	Published since July 2005
South Africa		SARB received support for a proposed RFR, the South African Rand Interbank Overnight Rate (ZARibor), but South Africa's Market Practitioners Group will make the ultimate decision
Switzerland	Swiss Average Rate Overnight (SARON)	Published since 2009 and recommended as RFR in October 2017

Jurisdiction	RFR rate	Status
Turkey	Turkish Lira Overnight Reference Rate (TLREF)	Published by Borsa Istanbul since June 2019 and overseen by the TLREF Committee
United Kingdom	Sterling Overnight Index Average (SONIA)	Published since 1997 and recommended as RFR in April 2017. Reformed SONIA published since April 2018
United States	Secured Overnight Financing Rate (SOFR)	Published since April 2018

Table 2 – RFRs of Non-FSB Jurisdictions

Jurisdiction	RFR rate	Status
Denmark		An RFR has been identified
Iceland		Preparations for an RFR have begun and are in a data collection phase
Malaysia		In the process of identifying a suitable RFR
Morocco	MONIA	Overnight Repo rate
Poland	Warsaw Repo Rate	Rate has been identified, its development is still in the concept stage
Sweden		A rate has been identified, with the final RFR expected to be published in the second half of 2020
Thailand		A rate has been identified and is expected to be published by Q2 2020

Of Non-LIBOR jurisdictions, two FSB jurisdictions noted having domestic benchmarks that are directly linked to USD LIBOR: Saudi Arabian Interbank Offered Rate (SAIBOR) and Singapore's SGD Swap Offer Rate (SOR). Saudi Arabia has established an SAIBOR alternative working group to determine a new methodology for calculating the rate. Singapore has identified an alternative rate to replace SOR and has developed a plan to transition from SOR to the Singapore Overnight Rate Average (SORA). Two non-FSB jurisdictions (Philippines and Thailand) also noted having benchmarks tied to USD LIBOR. In both cases work is underway either through the administrator or an industry working group to develop an alternative rate/methodology.

Table 3 – Transition Plans of IBORs Directly Linked to USD LIBOR

Jurisdiction	IBOR benchmark	Transition plan
Saudi Arabia	Saudi Arabian Interbank Offered Rate (SAIBOR)	SAIBOR alternative working group was established to determine a new methodology for calculating the rate.
Singapore	Swap Offer Rate (SOR)	Singapore Overnight Rate Average (SORA) was identified and a plan has been developed to transition from SOR to SORA.
Philippines	Philippine Interbank Reference Rate (PHIREF)	The Bankers Association of the Philippines, PHIREF's administrator, intends to establish a replacement reference rate for PHIREF.
Thailand	Thai Baht Interest Rate Fixing (THBFIX)	A working committee has been established to work on a fallback rate for legacy contracts and an alternative rate to be used after LIBOR's discontinuation.

Annex 5: Supervisory issues associated with benchmark transition from an insurance perspective - IAIS Report

1. Executive summary

This report presents to the G20[22] the findings from the survey on supervisory issues related to LIBOR transition distributed to IAIS members[23], similar to the survey distributed to BCBS and FSB members and to non-FSB members in FSB Regional Consultative Groups (RCGs) (FSB Report). The key findings and recommendations identified from the survey responses provided by insurance supervisors are largely consistent with those of the FSB Report, albeit with a few points specific to the insurance sector. Findings that are specific to the insurance sector arise particularly from the fact that insurers are exposed to transition risks on both sides of the balance sheet (for example, through the valuation of both their assets and liabilities).

The aim of the IAIS survey, similar to the FSB-BCBS survey, was to improve collective understanding of progress made so far with LIBOR transition and to increase awareness of the importance of ensuring timely transition.

The focus of the IAIS Report is on LIBOR transition, given its predominant global role and the short remaining period for transition, as also pointed out in the FSB Report. The FSB Report however recognises that the use of alternative reference rates should be encouraged across global interest rates markets were appropriate, and its recommendations may also be considered by jurisdictions in reducing reliance on other IBORs. This is supported by IAIS members.

Both the survey and the initial analysis were undertaken before the COVID-19 pandemic and therefore do not reflect any potential issues linked to its impact. In its statement responding to the impacts of COVID-19 on financial stability, the FSB has noted that LIBOR transition is a G20 priority and remains an essential task that will strengthen the global financial system. The FSB recognises that some aspects of firms' transition plans are likely to be temporarily disrupted or delayed by COVID-19, while others can continue. COVID-19 has highlighted that the underlying markets LIBOR seeks to measure are no longer sufficiently active. The FSB maintains its view that financial and non-financial sector firms across all jurisdictions should continue their efforts in making wider use of alternative reference rates in order to reduce reliance on IBORs where appropriate and in particular to remove remaining dependencies on LIBOR by the end of 2021. In this light, authorities may need to fundamentally review their readiness to implement some of the recommendations in this report, and, if necessary, revise their plans accordingly to be prepared to work on an even more compressed timeline when the pandemic situation has stabilised.

[22] This report is submitted to the July 2020 G20 Finance Ministers and Central Bank Governors meeting.

[23] Respondents to the IAIS survey have reviewed the IAIS Report and commented on the characterisation of their responses. The IAIS Executive Committee approved the IAIS Report on 11 June 2020.

Similar to the FSB-BCBS survey, based on the responses received, the IAIS has identified a number of recommendations adopted by authorities to address LIBOR transition challenges. Some of these recommendations have already been adopted by authorities that are more progressed in LIBOR transition. A wider implementation of these recommendations by jurisdictions could facilitate a more effective and coordinated transition globally.

This report recommends that insurance supervisors, SSBs, international bodies or other relevant stakeholders adopt or strengthen these recommendations in order to make further progress in transitioning away from LIBOR. While the recommendations should generally be applicable to all jurisdictions with LIBOR exposures, a proportionate and risk-based approach should be pursued in practice.

Recommendations are grouped under three areas: (i) identification of LIBOR exposures and transition challenges; (ii) transition facilitation; and (iii) supervisory cooperation and coordination.

In light of the expected cessation of LIBOR after end-2021, insurance supervisors should strengthen their efforts in facilitating insurers to transition away from LIBOR. Given that benchmark transition would have significant cross-border implications, there is a greater need to step up the coordination and monitoring effort at an international level. In this regard, the next steps of the FSB, which are supported by IAIS members, are:

- Further assessing transition progress by applying a simple set of key indicators and qualitative questions to monitor implementation of the below recommendations; and
- Monitoring the evolving impact of the COVID-19 pandemic on on-going benchmark transition.

2. Summary of key findings

In terms of coverage, the analysis is based on the 22 responses that were received from IAIS members, which provide an insurance perspective on supervisory issues associated with benchmark transition. The completeness and level of detail of the submitted responses vary across jurisdictions. For jurisdictions that have not identified any significant risks due to LIBOR transition, this may be due to insufficient information being available to support a definitive judgment.

Insurance sector exposures to LIBOR

- In terms of exposures, insurers' exposures to LIBOR are overall limited, but might be more concentrated in certain insurers depending on their geographical location, balance sheet structure, business model, products and size. A distinction needs to be made between the insurance sector asset- and liability-side exposures to benchmarks.[24]

[24] This is based on the qualitative responses from insurance supervisors. In the BCBS-FSB survey, while some jurisdictions provided an additional level of breakdowns on exposures, this was mainly for different types of banks and differentiating between FIs and Non-FIs. No split was provided for the insurance sector

- On the asset side, insurers are exposed through their investments in instruments linked to LIBOR (and alternative reference rates such as SONIA, SOFR, TONAR, SARON[25]). For insurers, various types of exposures to LIBOR are linked to cash products, bonds and loans, issuance of bonds and loans, derivatives (interest-rate swaps), floating rate notes, collateralised loan obligations (CLOs), and securitised transactions.
- Insurance sector asset-side exposures in jurisdictions with LIBOR currencies (USD, GBP, EUR, CHF and JPY) are in general found to be higher than those in non-LIBOR currency jurisdictions. In Europe, most of the concentration with respect to LIBOR-related assets is in one jurisdiction.
- On the insurance liability side, no material exposures to LIBOR was identified by insurance supervisors, except in one jurisdiction where close to all of the insurance liabilities are exposed to LIBOR, due to the valuation methodology.

Transition strategy and monitoring

- Approximately half of the responding jurisdictions indicated that there is no material exposure to LIBOR in their insurance markets and hence did not report to have a transition strategy in place. Other jurisdictions are still in the process of executing a work plan to analyse the LIBOR exposures. Reported transition plans, particularly from LIBOR currency jurisdictions, typically include improving awareness and providing guidance to market participants, monitoring transition progress via surveys and information requests to the insurance markets, outlining responsibilities and expectations with insurers, coordination of national working groups (NWGs), and coordination with other domestic and international bodies.

Major challenges and risks for insurers with LIBOR transition

- From a micro-prudential perspective, similarly to the findings from the FSB-BCBS survey, transition risks may arise from the operational, legal, prudential, conduct, hedging and accounting perspectives.
- Key transition challenges that have been identified include the need to develop further cash products, not linked to LIBOR, and concerns about lack of liquidity in alternative reference rates, complexities in adopting fallback language, and the dependence on concrete alternatives offered by financial intermediaries and clients' willingness to adjust.
- A major benchmark transition challenge identified was around the difficulties in developing fallback provisions; the lack of standardised fallbacks for cash products (e.g. bonds, loans) means that these may need to be renegotiated individually. This could potentially result in a heavy legal workload to adjust contracts and financial documents that use LIBOR as a reference rate, involving significant operational and legal risks. Other key benchmark transition risks include the increased market risk and a negative impact on product pricing if hedging strategies result in more basis risk, for example should the loan and derivative markets adopt different approaches for new reference rates. Potential further basis risk could be introduced on insurers'

[25] Sterling Over Night Index Average (SONIA), Secured Overnight Financing Rate (SOFR), Tokyo Overnight Average Rate (TONAR), Swiss Average Rate Overnight (SARON)

balance sheets when their assets transition to a benchmark that would be different from the benchmark used to value their liabilities.

- Other risks mentioned include:
  - uncertainty and possible effects on the eligibility of capital instruments and capital requirements;
  - an insufficient rate of transition in certain benchmark rates, which could form a barrier to transitioning cross-currency positions and certain futures contracts (market not deep enough);
  - the lack of liquidity in alternative reference rates
  - the lack of term rates for alternative reference rates; and
  - concerns about increased lapses of insurance contracts during the challenging process of agreeing contract amendments and negotiating new contracts under the new rates.

Supervisory actions and other initiatives

- Similar to non-insurance supervisors, most insurance supervisors have not set targets and deadlines for insurers to transition from LIBOR to alternative reference rates. However, several jurisdictions reported supporting the private sector to develop their own targets. Authorities in LIBOR currency jurisdictions are relatively more advanced in taking initiatives to facilitate and monitor benchmark transition, which include sending "Dear CEO" letters, requesting or encouraging insurers to set internal targets and deadlines for transition to LIBOR alternatives and carrying out desktop reviews or on-site examinations.
- On-site examinations to assess individual insurers' preparedness for benchmark transition typically focus on the largest insurers and are aimed at identifying exposures and assessing the readiness to use alternative benchmark rates.

Need for strengthened supervisory actions and in particular cross-border supervisory coordination

- Similar to the findings from the FSB-BCBS survey, the IAIS survey points out that insurance supervisors are likewise concerned about potential inconsistencies with the implementation of benchmark reforms domestically and across international markets, in terms of timing and approach. Examples of particular concerns are multi-currency products such as cross-currency swaps and balance sheet hedges.
- Insurance supervisors therefore see the need for international coordination around the expectations and timings of LIBOR transition. By directing financial institutions away from LIBOR in a coordinated manner, insurance supervisors expect to increase transition effectiveness (avoiding any further strain on resources, modelling complexity and bilateral negotiations) as well as to preserve the international level playing field.

3. Recommendations to support benchmark transition in the insurance sector

Similar to the FSB-BCBS survey, based on the responses received, the IAIS has identified a number of recommendations to address LIBOR transition challenges. Some of these recommendations have already been adopted by authorities that are more progressed in

LIBOR transition. A wider implementation of these recommendations by jurisdictions could facilitate a more effective as well as a more coordinated transition globally. This report recommends that insurance supervisors, SSBs, international bodies or other relevant stakeholders adopt or strengthen these recommendations in order to make further progress in transitioning away from LIBOR. While the recommendations should generally be applicable to all jurisdictions with LIBOR exposures, a proportionate and risk-based approach should be pursued in practice.

Recommendations are grouped under three areas: (i) identification of LIBOR exposures and transition challenges; (ii) transition facilitation; and (iii) supervisory cooperation and coordination.

Finally, a common theme identified, also in line with BCBS-FSB, is the deployment of sufficient resources to LIBOR transition: Supervisory authorities in the financial sector are encouraged to dedicate adequate resources and capacity to identify, monitor and facilitate the transition where necessary.

4. Identification of LIBOR exposures and remaining transition challenges in the insurance sector

- Insurance supervisors closely monitor LIBOR transition and actively reach out to the sector based on a risk-based approach, given LIBOR exposures seem to be more concentrated in certain insurers depending on their geographical location, balance sheet structure, business model and size.
- Insurance supervisors issue public statements as well as letters and/or follow-up letters to CEOs to promote awareness of LIBOR cessation and associated risks, both within insurers and across the financial system. In particular, further efforts are needed to enhance awareness and preparedness among smaller insurers.
- Insurers' risk management includes the identification of LIBOR-referenced contracts and an assessment of the impact on infrastructure and operations in an appropriate manner.
- Supervisory authorities in a jurisdiction jointly establish a formal integrated LIBOR transition strategy across the domestic financial sector, including evaluating the need and then undertaking regular surveys to monitor financial institutions' exposure to LIBOR, including insurers, and to identify possible areas of risk concentration.
- Insurance supervisors request, as part of insurers' risk management and reporting, a board-level summary of key risks and action plans related to LIBOR transition, steps already taken and designated senior management responsible for transition.
- Insurance supervisors particularly expect exposed insurers to regularly monitor and report major LIBOR-transition related risks, such as
  - lack of liquidity in alternative benchmark rates;
  - lack of term rates for alternative benchmarks and challenges in agreeing contract amendments;
  - exposures linked to underlying funds referenced to LIBOR in unit-linked insurance products; and
  - increased lapses of insurance contracts during the process of negotiating new contracts under the new rates.

- Supervisory authorities in the financial sector, the IAIS and other relevant SSBs jointly engage with industry and professional associations to raise awareness on the potential impact of LIBOR discontinuation, including potentially affected non-financial sector institutions, and provide information that may help the transition as well as identifying transition risks.

5. Facilitation of LIBOR transition

- Insurance supervisors communicate clearly to insurers on the timing of the change for new contracts from LIBORs to alternative reference rates.
- Insurance supervisors provide further regulatory clarifications or supervisory guidance to facilitate the transition, for instance, on legacy contracts that are difficult to be actively converted (e.g. due to a lack of robust fallbacks), the transition roadmap and conduct-related issues. This could include setting out milestones to facilitate the transition and clarify actions market participants should take within the roadmap. Standardised fallbacks, such as those developed by industry associations in cooperation with SSBs, for cash products (e.g. bonds, loans) could help avoid individual renegotiations, which would not only involve a heavy workload but also expose insurers to significant operational and legal risks.
- Insurance supervisors maintain regular dialogue with insurers to discuss transition plans, and progress against set timelines or milestones as well as the readiness of internal and external systems.
- Insurance supervisors carry out further desktop reviews or on-site examinations, with potential coverage of
  - types and levels of LIBOR exposures;
  - transition plans and milestones;
  - governance over the transition work; and
  - progress of negotiation with counterparties on LIBOR-referenced contracts.

6. Supervisory cooperation and international coordination

- Insurance supervisors jointly promote financial sector-wide coordination by sharing latest developments and best practices on transition, for instance, via established or newly created NWGs with a diverse membership of insurers, other financial institutions, non-financial institution corporations and corporate treasuries and industry associations representing various markets (e.g. derivatives, bond and syndicated loan markets).
- Insurance supervisors maintain dialogue with NWGs and/or industry associations (domestically and internationally), particularly focusing on the adoption of fallback language for various products and identifying steps that would facilitate the developments where necessary.
- Insurance supervisors consider working with relevant financial sector supervisors to identify legislative solutions, where necessary, to mitigate exposures of legacy contracts that have no or inappropriate fallbacks, and cannot realistically be renegotiated or amended.

- Insurance supervisors exchange information on best practices and challenges, as well as on progress across jurisdictions through the work of international fora such as the IAIS and/or existing supervisory channels (e.g. supervisory colleges).
- International bodies, SSBs and supervisory authorities encourage financial institutions, including insurers, to maintain a good understanding of wider market developments (in particular the discussion of output of NWGs and international bodies).

7. Next steps

The results of the FSB-BCBS questionnaire have shown gaps in quantifying LIBOR exposures and the status of fallback adoption and therefore it would be difficult to comprehensively assess the impact on financial stability arising from LIBOR transition. On transition progress, the survey results show that a considerable portion of financial institutions including insurance companies across jurisdictions have yet to start or are still planning on the transition. In light of the expected cessation of LIBOR after end-2021, insurance supervisors should strengthen their efforts in facilitating insurance companies to transition away from LIBOR. Given that benchmark transition would have significant cross-border implications, there is a greater need to step up the coordination and monitoring effort at an international level. The next steps of the FSB, supported by IAIS members, are:

- The FSB, in collaboration with the IAIS and other SSBs and international bodies, will design a simple set of key metrics or indicators to update global LIBOR exposures and transition status, and identify a list of qualitative questions to monitor the progress in implementing the above recommendations. The aim is to provide another assessment of the transition progress to SRC by early next year.
- The IAIS will contribute to the FSB's continued monitoring of the evolving impact of the COVID-19 pandemic on ongoing benchmark transition, the findings of which will be incorporated into the FSB's annual progress report on implementation of recommendations to reform major interest rate benchmarks (to be published before the G20 meeting in November).

8. Detailed findings derived from the responses submitted to the survey

The aim of this chapter is to provide a detailed overview of the most important findings extracted from the IAIS survey of insurance supervisors on the prudential and supervisory implications of benchmark rate reforms in the insurance sector. The survey was launched on 20 January 2020 to the IAIS main representatives, with a deadline for completion by 7 February 2020. The responses from 22 IAIS Members and the resulting key findings were discussed in the Policy Development Committee (PDC) and the Executive Committee (ExCo) on 24 and 26 February, respectively.

The aim of the IAIS survey, similar to the FSB-BCBS survey, was to improve collective understanding of progress made so far with LIBOR transition and to increase awareness of the importance of ensuring timely transition.

The limitations of the survey should be considered when interpreting the analysis and its conclusions. The completeness and level of detail of the submitted responses vary across jurisdictions. For jurisdictions that have not identified any significant risks due to LIBOR

transition, this may be due to insufficient information being available to support a definitive judgment.

The findings are grouped under the following five areas: (i) insurance sector exposure; (ii) transition progress monitoring by insurance supervisors; (iii) supervisory approach and actions; (iv) cross-border issues and (v) insurance liability valuation.

9. Insurance sector exposures to LIBOR

Finding 1: Insurance companies' exposures to LIBOR depend on their location, balance sheet structure, products and size.

Different exposures in different markets

Insurance sector exposures in jurisdictions with **LIBOR currencies** (USD, GBP, EUR, CHF and JPY) **are in general more exposed** to LIBOR than insurance sectors in non-LIBOR currency jurisdictions.[26]

In Europe, most of the concentration with respect to LIBOR-related assets is in the UK. The European Insurance and Occupational Pensions Authority (EIOPA) states that the impact of LIBOR changes on assets in European Union Member States with a large insurance sector are not expected to be material.

Distinction between asset and liability side

Asset-side exposures to LIBOR:

- Insurers invest in instruments linked to LIBOR (and alternative reference rates such as SONIA, SOFR, TONA, SARON).
- Different types of exposures to LIBOR by insurers are cash products, bonds and loans, issuance of bonds and loans, derivatives (interest-rate swaps), floating rate notes, CLOs, securitised transactions.

Liability-side exposures to LIBOR: **No material exposures** identified by respondents, **except in the UK** (close to 100% due to reliance on the EIOPA pound sterling risk-free risk curve, which is based on LIBOR).

Distinction between large and smaller insurers

Supervisors monitoring insurance sector exposures to LIBOR differentiated between progress made by:

- **Large insurers**, who in general are observed to be **taking action** to transition away from LIBOR; and
- **Smaller insurers**, where either:
- No significant exposures have been observed; or

[26] Some risk-free rates in non-LIBOR currencies also rely on LIBOR, and would hence be affected by LIBOR discontinuation.

- There is insufficient awareness of LIBOR exposures and/or insufficient capacity to transition away from LIBOR (relating to the costs).

10. LIBOR transition progress monitoring work conducted by insurance supervisors

Finding 2: The progress of transition away from LIBOR differs across markets, depending on the observed materiality of the exposures.

Approximately half of the responding jurisdictions indicated that there is **no material exposure** to LIBOR in their insurance markets.

Some jurisdictions are still in the process of executing a work plan to analyse the LIBOR exposures.

Insurance supervisors in other jurisdictions are either taking action or have observed other parties taking action, including:

- Bilateral engagements of supervisors with individual insurers;
- Industry-wide communications and information requests by supervisors, involving industry associations; and
- Setting-up cross-sectoral working groups or task forces at the national level (e.g. £RFRWG[27] in the UK).

Some jurisdictional examples include:

- In the US, the SOFR has been effective since April 2018. Since this date, SOFR-linked transactions have grown significantly.
- In the UK, industry-wide communications and information requests have been sent out; bilateral engagements with the largest insurance firms took place in Q4 2019.
- In Switzerland, the Financial Market Supervisory Authority (FINMA) guidance on LIBOR transition was published in 2018. FINMA also performed a self-assessment survey in 2019 covering more than 60% of the Swiss Life and Non-Life markets and undertook bilateral meetings with insurance entities.
- In Singapore, the Monetary Authority of Singapore (MAS) issued a further survey in early March 2020 to obtain an update on insurers' exposure to LIBOR and the SGD Swap Offer Rate (SOR). MAS will potentially take a targeted approach subsequently to follow up with insurers with significant exposures in order to accelerate transition.
- In Chinese Taipei, a thematic survey is being carried out across the insurance sector and the relevant analysis is expected to be finished by the end of April 2020.
- In the European Union (EU), EIOPA is seeking to adopt a common approach across the EU to the transition to new benchmark rates and a discussion paper was published on 6 February 2020 in order to address the subject of the ongoing changes to the new benchmark rates (IBOR transitions).
- In Japan, several insurers are working on the identification of systems that need to be updated for purposes of benchmark transition.

[27] Pound Sterling Risk Free Rate Working Group (£RFRWG)

Finding 3: Jurisdictions monitoring progress of including fallback provisions under existing LIBOR contracts acknowledge that, for certain cash investment products, the use of fallback provisions is still limited.

Most of the responding jurisdictions had **no detailed observations** in terms of progress by insurers in including fallback provisions under existing LIBOR contracts.

Some jurisdictional examples include:

- In the US, SOFR has been in place since April 2018. However, industry products that rely on LIBOR are different both in nature and in LIBOR fallback approaches (derivatives, floating rate notes, CLOs, securitised transactions and private placements).
  - Fallback triggers exist for new derivatives (ISDA) and certain cash products (either hardwired using SOFR or determined by calculation agents), but the market has not selected a single approach. These differences can give rise to basis risk.
- In Hong-Kong:
  - For loan-related contracts, insurers are managing the transition from LIBOR to alternatives through reference to the steer from the Loan Sales and Trading Organization.
  - For derivatives-related contracts, insurers are staying abreast of fallbacks being proposed by International Swaps and Derivatives Association and anticipate adherence through their future protocol(s).
  - Some insurers expect to rebase to SOFR.
- In the Netherlands, insurers are mostly preparing for a number of scenarios (for example, EURIBOR[28] is replaced by hybrid EURIBOR or €STR[29], or generally the transition to a new reference benchmark).
- In South Africa, in certain instances, insurers' contracts that contain clauses which assist with an easy transition to alternative reference rates are available. Some insurers indicated that they have LIBOR-linked contracts in their shareholder guaranteed portfolios.
- In Japan, the use of fallback provisions is still limited. The Financial Services Agency (FSA) expects financial institutions, including insurers, to use fallback provisions more widely.
- Korean insurers are in the process of developing fallback provisions in connection with the renewal of existing contracts or entry into new contracts.
- In the UK, the joint Prudential Regulatory Authority (PRA) and Financial Conduct Authority (FCA) outreach to firms should, in the near future, provide data to assess the progress on including fallback provisions; however this is not yet available.

[28] Euro Interbank Offered Rate (EURIBOR)
[29] Euro Short-Term Rate (€STR)

Finding 4: Insurance supervisors observe that larger insurers have generally taken steps to take into account LIBOR transition in their governance framework and organisational structure, including:

- Establishing and documenting internal processes.
- Establishing organisational structures to manage the transition (e.g. dedicated programs and or project teams).
- Keeping executive members continually informed about developments within their organisations.
- Establishing legal teams for the review of the insurer's contractual obligations.
- **Most** insurance supervisors in the responding jurisdictions, however, **have no initial observations** and findings on insurers in terms of the extent to which they have taken into account LIBOR transition in their governance framework and organisational structure.

11. Supervisory approach and actions

Finding 5: Insurance supervisors have identified the following key challenges and risks with LIBOR transition:

- Inconsistencies with the implementation of benchmark reforms locally and across international markets, in terms of timing and approach, which adds further strain on resources, modelling complexity and bilateral negotiations.
  - The varied nature of alternative reference rates selected (collateralised vs. uncollateralised) makes migration across products and jurisdictions challenging from a risk management and hedging perspective; and
  - Varied and uncoordinated transition timelines could impact how benchmark discontinuation affects multi-currency products such as cross-currency swaps (for instance, if the respective legs of the transaction reference different benchmark rates, these could transition at different times), and balance sheet hedges (if assets and liabilities transition at different times).
- **Difficulties in developing fallback provisions**. The lack of standardised fallbacks for cash products (e.g. bonds, loans) means that these may need to be renegotiated individually.
- **Heavy legal workload to adjust contracts and financial documents that use LIBOR as a reference rate,** involving significant **operational and legal risks**, including:
  - Renegotiation of legal contracts, which will **impact resources** and may result in additional costs; and
  - **Conduct risk**, as potential value transfer could occur when amending contracts to reference or fallback to alternative reference rates. This may lead to disputes/litigation. Asymmetry of information available to banks and non-bank entities may also give rise to a perceived risk of collusion and lead to **legal and reputational risk**.
- **Increased market risk** and a negative impact on product pricing if hedging strategies result in more **basis risk,** should the loan and derivative markets adopt different approaches for new reference rates.

- **Insufficient data with respect to alternative reference rates**. For most insurers, this would be an asset management issue primarily in their capacity as institutional investors.
- **Other risks** which were mentioned include:
  - Uncertainty and possible effects on capital instruments (eligibility) and requirements;
  - Insufficient rate of transition in SOFR is a barrier to transitioning cross-currency positions and certain futures contracts (market not deep enough);
  - **Lack of liquidity** in alternative reference rates;
  - **Lack of term rates** for alternative reference rates and challenges in agreeing contract amendments;
  - **Lack of clarity** on a replacement Solvency II discount curve. Potential basis risk between switching to SONIA-based assets whilst holding LIBOR-discounted liabilities;
  - **Lack of clarity** about timelines and the ultimate outcome of the transition exacerbates these risks;
  - Exposures linked to underlying funds referenced to LIBOR in unit-linked insurance products; and
  - Concerns about increased **lapses** of insurance contracts during the process of negotiating new contracts under the new rates.

Finding 6: Most supervisors have not set targets and deadlines for insurers to transition from LIBOR to alternative reference rates. While most supervisors are not planning to conduct on-site examinations to assess individual insurers' preparedness for benchmark transition, there are examples of some supervisors who intend to do such assessments through either on-site examinations or regular supervisory activities.

Specific examples of supervisors setting targets and deadlines and carrying out on-site visits or regular supervisory activities for purposes of monitoring benchmark transition preparedness include:

- UK PRA has set a series of targets for 2020. The planning assumption for all UK firms is that LIBOR will cease after end-2021, when LIBOR submissions will no longer be mandated by the FCA.

  The UK £RFRWG has set a series of targets for 2020, including to:

  - Enable a further shift of volumes from LIBOR to SONIA in derivative markets, supported by a statement from the Bank of England and FCA encouraging a switch in the convention for sterling interest rate swaps from 2 March 2020;
  - Require lenders to be in a position to offer non-LIBOR linked alternative products to customers by Q3 2020 and require lenders to include contractual arrangements to convert new and re-financed LIBOR-referencing loans ahead of end-2021;
  - Cease issuance of loan products linked to sterling LIBOR by end-Q1 2021; and
  - Significantly reduce the stock of LIBOR-referencing contracts by Q1 2021.

- On-site examinations to assess individual insurers' preparedness for benchmark transition (JP, UK, SA) focus on the largest insurers and are aimed at identifying exposures and assessing the readiness to use alternative reference rates.
- In the US, while some States may perform some work during on-site examinations, most of the work performed by supervisors is expected to be through inquiry, either formally in writing or informally during the analysis process, depending upon the State's sense of preparedness. The Federal Reserve monitors preparedness during the course of regularly scheduled supervisory activities.

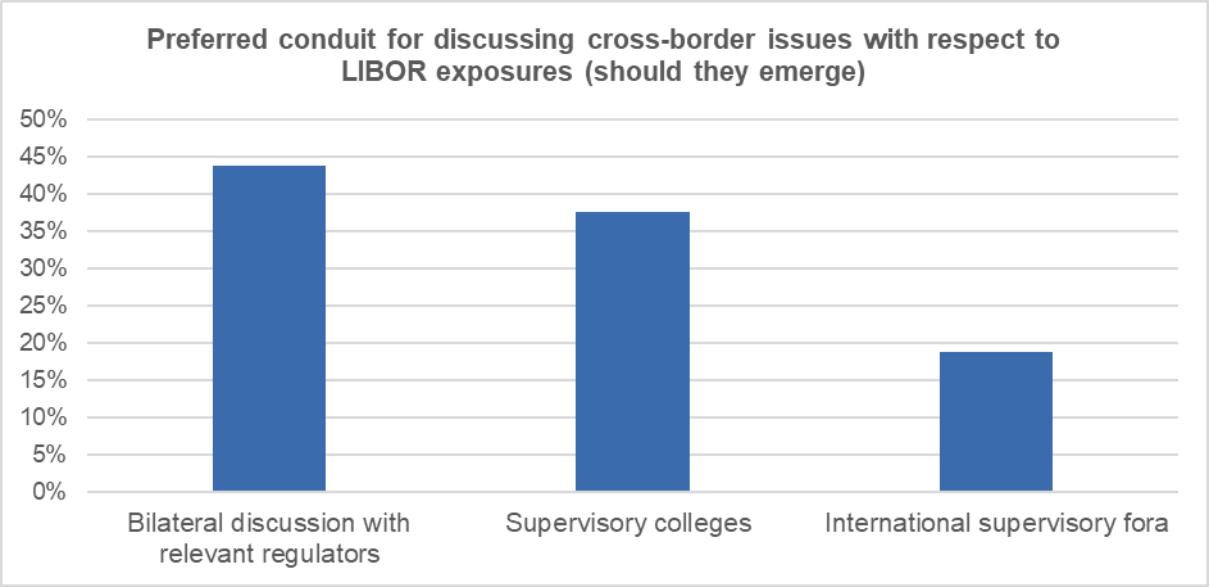
12. Cross-border issues

Finding 7: Insurance supervisors seeing the need for cross-border supervisory coordination and cooperation state it should target the following objectives:

- **Raising awareness** among all market participants.
- **Coordinating expectations and timings:** Ensuring a consistent implementation of benchmark reforms locally and across international markets, in terms of timing and approach to avoid adding further strain on resources, modelling complexity and bilateral negotiations.
- Removing regulatory barriers to the transition from LIBOR[30].
- Increasing the **effectiveness** and **level-playing field** by directing financial institutions away from LIBOR in a coordinated manner.
- Avoiding challenges that could arise where **one currency is transitioning away from LIBOR at a different rate from the other**.
- In case of cross-border transition failure: Seeking support, advice and potentially corresponding action from relevant micro- and macroprudential authorities in other jurisdictions.

[30] For example, the lack of clarity on a replacement Solvency II discount curve was cited as a key barrier to transition. Related to this, respondents also noted potential basis risk between switching to SONIA-based assets whilst holding LIBOR-discounted liabilities.

Finding 8: Insurance supervisors prefer the following conduit for discussing cross-border issues with respect to LIBOR exposures, should they emerge:



13. Insurance liability valuation

Finding 9: Most insurance supervisors report a non-material percentage of insurance liabilities subject to valuation principles set out in regulation that rely on LIBOR, except for the UK, where close to 100% of insurance liabilities rely on LIBOR.

Finding 10: Respondents with clearly identifiable exposure to LIBOR in the valuation of insurance liabilities are actively managing transition away from LIBOR.

Some jurisdictional examples include:

- In the UK close to 100% of insurance liabilities rely on LIBOR (£RFR). The planning assumption for all UK firms is that LIBOR will cease after end-2021, when LIBOR submissions will no longer be mandated by the FCA.
    - As outlined under finding 6, the UK PRA has set a series of targets for 2020. The planning assumption for all UK firms is that LIBOR will cease after end-2021, when LIBOR submissions will no longer be mandated by the FCA.
    - Furthermore, on-site examinations are aimed at identifying exposures and assessing the readiness to use alternative reference rates with focus on the largest insurers.
- In the US: Insurers are already transitioning away from LIBOR. The National Association of Insurance Commissioners (NAIC) will work with the industry to develop appropriate transition language. SOFR is perceived as less volatile than LIBOR, therefore risks should be reduced as a result of the process.
- In the EU, the interest rate swap instruments currently used within the risk-free rate curve, which is used to value insurance liabilities, are based on IBOR benchmark

rates. Given that it is expected that LIBOR rates will be replaced by OIS[31] rates, the EIOPA Risk-free Rate (RFR) methodology and the EIOPA RFR production will need to be adjusted. In February 2020, EIOPA published a discussion paper[32] in which three options for switching the term structures to the new OIS rates are proposed:

  - The first option proposes an immediate switch, whereas the other two options consider gradual approaches to the replacement of the term structures to the new OIS-based term structures.
  - EIOPA favours one of the two gradual options, which promotes maximum stability for insurers. The discussion paper considers a "one size fits all" approach, which can be applied to all currencies and rates, including LIBOR.
  - Stakeholders are invited to provide EIOPA with their feedback by end of June 2020. Based on this feedback, EIOPA will produce a consultation paper, which will include specific policy recommendations on the subject of IBOR transitions.

- In Costa Rica: The supervisor has recommended that the transition plan should include a review of regulations that use LIBOR as a reference. The selection of an alternative rate and regulatory changes are expected to be made in the third quarter of 2020.

Most respondents state **no changes** are required, due to the immaterial exposure.

31 Overnight indexed swap (OIS)

32 The paper is addressed to stakeholders, with a request for feedback to EIOPA by the end of June. (https://www.eiopa.europa.eu/content/discussion-paper-ibor-transitions)

Annex: List of Insurance Supervisors that responded to the IAIS Survey

	Jurisdiction	Supervisory Authority	FSB member jurisdiction	Jurisdiction with LIBOR currency
1	Argentina	Superintendencia de Seguros de la Nacion Argentina	✓	
2	Australia	Australian Prudential Regulation Authority (APRA)	✓	
3	Belgium	National Bank of Belgium (NBB)		✓
4	China, Hong Kong	Insurance Authority (IA)	✓	
5	China, Macao	Autoridade Monetária de Macau		
6	Chinese Taipei	Financial Supervisory Commission		
7	Costa Rica	Superintendencia General de Seguros de Costa Rica		
8	EIOPA	European Insurance and Occupational Pensions Authority (EIOPA)		✓
9	**France**	**Prudential Supervision and Resolution Authority (ACPR)**	✓	✓
10	**Japan**	**Financial Services Agency (FSA)**	✓	✓
11	Korea (Republic of)	Financial Services Commission (FSC) & Financial Supervisory Service (FSS)	✓	
12	Lithuania	Central Bank of Lithuania		
13	Netherlands	De Nederlandsche Bank (DNB)	✓	✓
14	Portugal	Autoridade de Supervisao de Seguros e Fundos de Pensoes (ASF)		✓
15	**Singapore**	**Monetary Authority of Singapore (MAS)**	✓	✓
16	South Africa	Prudential Authority	✓	
17	**Spain**	**Dirección General de Seguros y Fondos de Pensiones**	✓	✓
18	**Switzerland**	**Financial Market Supervisory Authority (FINMA)**	✓	✓
19	Thailand	Office of Insurance Commission		
20	**United Kingdom**	**Prudential Regulation Authority (PRA)**	✓	✓
21	Uruguay	Banco Central del Uruguay (BCU), Superintendencia de Servicios Financieros (SSF)		
22	**USA**	**National Association of Insurance Commissioners (NAIC), Federal Reserve Board (FRB)**	✓	✓

Supervisory authorities/IAIS members highlighted in bold are from a FSB member jurisdiction with a LIBOR currency. For the purpose of this note, LIBOR jurisdictions include the Euro area jurisdictions. It should be noted that for jurisdictions with the Euro as LIBOR currency, the prevalence of the exposure is with EURIBOR or EONIA, which are non-LIBOR reference rates.