The transition to risk-free rates in the international bond market

By Paul Richards

Summary

The purpose of this Quarterly Assessment is to bring ICMA members up-to-date with developments relating to the transition from Interbank Offered Rates (IBORs) to near Risk-Free Rates (RFRs), particularly in the international bond market referencing term LIBOR. The Quarterly Assessment begins by setting out the problem with LIBOR and the proposal to introduce RFRs as the alternative to LIBOR. It then examines the transition to RFRs in the international bond market, focusing on the adoption of RFRs; issues arising from the conversion of legacy transactions; coordination between different markets and different jurisdictions internationally; and the task of raising awareness of the transition to RFRs. It concludes by setting out ICMA's role.

The problem with LIBOR

1 In a speech in July last year, the Chief Executive of the UK Financial Conduct Authority (FCA) said that the FCA would no longer intend to use its powers to persuade or compel banks to submit contributions for LIBOR after the end of 2021; and would not in any case be in a position to compel banks to submit contributions indefinitely under the EU Benchmarks Regulation.[1] There are three related reasons why there has been a problem with LIBOR:

2 The first reason why there has been a problem with LIBOR is that the underlying structure of financial markets has changed since the financial crisis. As the Governor of the Bank of England has explained: "LIBOR has not kept up with market developments. LIBOR is meant to measure the short-term unsecured funding costs of banks. But the reality is that, since the financial crisis, LIBOR really has become the rate at which banks do not lend to each other. Bank funding markets have changed enormously. Banks no longer take sufficient short-term wholesale deposits to form the basis for a robust transaction-based LIBOR benchmark. As a result, LIBOR is overly reliant on expert judgment rather than actual transactions. And global markets remain overly reliant on LIBOR, a benchmark that may not exist beyond 2021. That reliance is neither desirable nor sustainable."[2]

3 The second reason why there has been a problem with LIBOR relates to the implications for financial stability. As the President of the Federal Reserve Bank of New York has stated: "The essential problem with LIBOR is the inherent fragility of its "inverted pyramid", where the pricing of hundreds of trillions of dollars of financial instruments rests on the expert judgment of relatively few individuals, informed by a very small base of unsecured interbank

1. Andrew Bailey, Chief Executive of the FCA: *The Future of LIBOR,* 27 July 2017.

2. Mark Carney, Governor of the Bank of England: *Staying Connected:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

transactions. So, despite efforts to improve LIBOR in recent years – and there undoubtedly have been important changes that have strengthened its administration and governance – the lack of underlying market liquidity for nearly all currencies and maturities remains a problem, and there is no obvious solution."[3]

4 The third reason why there has been a problem with LIBOR relates to the scope for manipulation. As the Chair of the European Securities and Markets Authority has said: "The globally most relevant interbank interest rates benchmarks, like LIBOR and EURIBOR, were unregulated and their methodologies and governance allowed manipulation on a scale rarely seen in the financial sector."[4]

Risk-free rates as the alternative to LIBOR

5 To avoid the problems associated with manipulation of LIBOR in the past and the financial stability risks arising from LIBOR in the future, the authorities want financial markets to transition from the IBORs (eg LIBOR) to near Risk-Free Rates (RFRs). It is estimated that contracts with a total notional value of over $370 trillion are referenced to the IBORs:[5] these are mainly in the derivatives markets; but the cash markets in the form of loans and bonds, representing the real economy, constitute a significant proportion of the overall total.

6 RFRs have been chosen in the UK (SONIA), US (SOFR), Switzerland (SARON) and Japan (TONAR), and the choice of an RFR is currently being considered in the euro area.[6] All the RFRs are overnight rates. Some are secured (like SOFR in the US) and some unsecured (like SONIA in the UK). In the UK, the choice of SONIA has three main benefits over LIBOR: it represents conditions in a deep underlying market; its design is robust to future changes in money markets because, if necessary, SONIA's data inputs can evolve; and it is a better reflection of the general level of interest rates than LIBOR, which is affected by fluctuations in the perceived credit quality of banks.[7]

7 A common objective is to make the RFRs as robust as possible. For this purpose, robustness is measured primarily by the volume of observable transactions.[8] The authorities want to prevent a repetition of the main problem with LIBOR: banks submitting quotes have had to rely on expert judgment owing to an insufficient volume of observable transactions. In the UK, one of the main advantages of reformed SONIA (as from 23 April 2018) is that the average daily volume is three times larger than the SONIA rate it has replaced.[9]

8 Interest rate benchmarks are now regulated by the European Benchmarks Regulation (BMR), which originally entered into force in June 2016, and will apply fully from January 2020. Globally, the BMR is the only binding set of rules covering all types of indices. It governs the provision as well as the use of benchmarks by supervised entities in the EU, including those provided in third countries. Under the BMR, the most significant interbank interest rate benchmarks – EONIA, EURIBOR and LIBOR – are critical benchmarks supervised by supranational colleges.[10]

9 To make the transition from IBORs to RFRs work well, the authorities and market participants need to work together. Risk-Free Rate Working Groups have been set up in all the five main IBOR jurisdictions. ICMA is involved in the Risk-Free Rate Working Group in the UK (working with the Bank of England and the FCA); the Euro Risk-Free Rate Working Group (organised by the ECB, ESMA, the European Commission and the FSMA); and the Swiss National Working Group (chaired by the Swiss National Bank and ZKB).

10 The authorities recognise that the cash markets – ie loans and bonds – need to be represented in the RFR Working

3. William Dudley, President of the Federal Reserve Bank of New York: *The Transition to a Robust Reference Rate Regime:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

4. Steven Maijoor, Chair of ESMA: *Towards Benchmark Stability and Integrity:* ICMA Annual Conference, Madrid, 31 May 2018.

5. ISDA, AFME, ICMA, SIFMA and SIFMA Asset Management Group: *IBOR Global Benchmark Survey 2018 Transition Roadmap*, February 2018.

6. No decision has yet been taken about a euro RFR to replace EONIA by the end of 2019, but the ECB has announced its intention to use the statistical data it has been collecting to publish an unsecured euro overnight rate (ESTER) by October 2019.

7. See Mark Carney, Governor of the Bank of England: *Staying Connected:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

8. William Dudley, President of the Federal Reserve Bank of New York: "[SOFR] is entirely transaction-based, and the underlying market is robust, with current daily volume of more than $700 billion. (By comparison, unsecured three-month US-dollar wholesale borrowing totals roughly $1 billion per day.)": *The Transition to a Robust Reference Rate Regime:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

9. Mark Carney, Governor of the Bank of England: *Staying Connected:* Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

10. See Steven Maijoor, Chair of ESMA: *Towards Benchmark Stability and Integrity:* ICMA Annual Conference, Madrid, 31 May 2018.

Groups, and not just the derivatives markets. In the UK, for example, new Sub-Groups have been formed to cover loans – chaired by LMA – and bonds, chaired by ICMA. The Bond Market Sub-Group is representative of the sterling bond market as a whole, including public sector, corporate sector and financial sector issuers, asset managers and investors, banks involved in the primary and secondary markets, four law firms (working together), and trade associations with an interest, with the FCA and Bank of England providing the Secretariat.

The transition to risk-free rates in the international bond market

11 In the international bond market, LIBOR is used as a reference in floating-rate notes (FRNs), securitisations and also capital securities, where LIBOR is used to reset an earlier fixed rate coupon to a floating rate at the end of a fixed period of time. In each case, the key issues that need to be addressed relate to: the adoption of RFRs in new bond issues; the conversion of legacy transactions; coordination between cash and derivatives markets and between different IBOR jurisdictions; and the need to raise awareness in the market of the proposed change.

(i) Adoption of RFRs in new bond issues

12 Some progress has already been made towards the adoption of RFRs in the derivatives market, starting with the choice of overnight RFRs. Adoption of RFRs also represents a challenge in the cash markets. The bond market in the UK currently references term LIBOR, with a floating rate which is normally reset for periods of three or six months in advance:

- One option is to replace term LIBOR in new bond market transactions with a forward-looking term rate derived from the RFR. A forward-looking term derivative of the RFR would be the nearest RFR-based equivalent to forward-looking term LIBOR. Interest payments would be known in advance. There would be only one main change: from an interbank offered rate to a risk-free rate, which is economically not the same. But forward-looking term RFRs might take a considerable period of time to develop; and they would not be as robust as overnight RFRs, at least for some time, as the volume of observable transactions would be lower.
- Another option is to replace term LIBOR with a backward-looking RFR, compounded daily in arrears.[11] As the RFRs are overnight rates, which have the largest volume of observable transactions, this option would mean that bond markets would reference more robust rates than forward-looking rates derived from RFRs, and bond market conventions would be similar to those already used in the swap market. But under a backward-looking RFR, interest payments on term transactions would not be known in advance, and users would need to make two changes: a change from a forward-looking rate to a backward-looking rate as well as a change from an interbank offered rate to a risk-free rate. For some market participants, making the change to a backward-looking rate would take time and cost money. But at the end of June, the EIB successfully launched a new GBP 1 billion five-year FRN referencing backward-looking SONIA, compounded daily in arrears.
- A third option is for the market to be offered a choice between forward-looking and backward-looking rates, though this might split liquidity between them. Some market participants may also be reluctant to spend time and money preparing for backward-looking rates first in the expectation that they may be able to use forward-looking term RFRs, if and when they become sufficiently robust, later.

13 In the meantime, new bonds are still being issued referencing LIBOR with maturities beyond the end of 2021 (ie the date after which the availability of LIBOR is no longer guaranteed). If LIBOR were no longer available, the terms of many existing FRNs would result in the interest rate becoming fixed at the most recent LIBOR rate for the issue concerned, though alternatives have been used in some recent cases. A fixed rate fallback was originally designed in case LIBOR was temporarily unavailable. It was not designed with a view to the permanent cessation of LIBOR.

14 Users of the bond market need to be aware of the risks involved in issuing, hedging, selling and buying new bond issues referencing LIBOR with maturities beyond 2021, in case LIBOR ceases to be available after that date. Sell-side firms may need to consider the suitability of selling such products to certain investors and the duty of care they owe to their customers. It is also important to find a new workable fallback for any new LIBOR transactions in place of current fallback provisions.[12]

(ii) Conversion of legacy bonds

15 In the cash markets, conversion of legacy bonds would be more complex than converting derivatives. Indeed, in the derivatives market, ease of conversion was one of the reasons in the UK for choosing SONIA as the preferred RFR in place of

11. A margin (or spread) would be added, but not compounded. This would make it as easy as possible for a table of compounded rates to be published each working day for market use.

12. See the letter to ISDA from the Financial Stability Board Official Sector Steering Group (OSSG) Co-Chairs, Sub-Group on Contractual Robustness, 18 April 2018: "ISDA should develop a methodology for fall backs in the 2006 ISDA Definitions that could be used in the absence of suitable term rates. We strongly suggest that the ISDA Sub-Group focuses on calculations based on the overnight rates selected by the RFR working groups."

LIBOR.[13] Unlike the derivatives market, which uses protocols to amend large volumes of contracts, protocols are not – and may not be able to be – used in the bond market. In general, amending the terms of bond issues requires bondholder consent. The threshold for bondholder consent is generally set at a high level (sometimes 100%), so it would be very difficult, time-consuming and expensive to obtain bondholder consent to make the changes that would be necessary for conversion. The outcome could not be guaranteed, without legislative intervention, which would need to be coordinated across different jurisdictions internationally.

16 The problem with conversion does not so much arise in the case of short-dated legacy bond issues, which will mature while LIBOR continues to be available, as long as they can continue to be hedged effectively in the meantime: ie if the bond is referenced to LIBOR, but the associated derivative is referenced to an RFR. But it is much more of a problem in the case of longer-dated bond issues, which are due to mature after the date when LIBOR may no longer be available, and many of which are likely to fall back to a fixed rate in those circumstances.

17 In addition, there is a question about whether a credit adjustment spread would need to be applied as a result of the replacement of LIBOR (which includes bank credit risk) by RFRs (which do not). Any such credit adjustment spread would need to treat both issuers and investors fairly, so as to avoid the risk of creating winners and losers.

18 The task of converting legacy bond issues from LIBOR to RFRs will grow in scale, so long as new issues continue to reference LIBOR, unless there are changes to documentation in the meantime to make conversion easier, including provision for a new fallback. And if LIBOR continues to exist after 2021 in whatever form, it is likely that LIBOR will continue to be used as the reference for legacy bonds, even if the fallback provisions have been modified on new transactions. This is because current fallback provisions will not be triggered unless or until LIBOR ceases to be available.

(iii) International coordination

19 There is agreement that international coordination is needed between the bond markets and the derivatives markets during the transition from the IBORs to RFRs, as new bond issues are frequently hedged in the derivatives market. It would also help if there is international coordination across products both in agreeing fallbacks on new contracts referencing RFRs, in case LIBOR ceases to be published, and in setting the triggers under which the fallbacks would be used.

20 In addition, coordination is important between the different IBOR jurisdictions. The authorities already work together through the Official Sector Steering Group of the Financial Stability Board.[14] There are some differences between plans for the use of RFRs in different IBOR jurisdictions. As regards timing, RFRs have already been chosen in the US and the UK, but in the euro area work is still being undertaken on choosing its RFR. And there are some differences of approach: some overnight RFRs are secured and some unsecured; it is not yet known whether term RFRs in some jurisdictions will be forward-looking while RFRs in other jurisdictions will be backward-looking; and in the UK, term LIBOR is due to be replaced by SONIA, whereas in the euro area it is not yet clear whether EURIBOR will be reformed or whether it will need to be replaced. However, the question is how much these differences matter, given that the underlying direction of travel towards risk-free rates is the same in all jurisdictions.

(iv) Raising awareness

21 The level of awareness of the proposed transition from the IBORs to RFRs has grown, but market preparations are still at an early stage, particularly in the cash markets. So market forums and other forms of market communication are needed to raise awareness of the practical steps that market firms need to take. For example, at the 50th ICMA AGM and Conference in Madrid at the end of May, ICMA arranged a panel of senior officials representing the Bank of England, FCA, European Central Bank, Federal Reserve and Swiss National Bank to explain to members why the transition to RFRs is important, and to discuss how it is proposed that the transition will work and what market firms need to do to prepare.[15] In addition to forums for market participants, it is also important for market firms to reach out to their own customers, including retail customers.

13. Francois Jourdain, Chair of the Sterling RFR Working Group: "The Group's debate on the preferred RFR was vibrant and considered, but ultimately a key deciding factor for many members was speed of implementation, since no transition of the Overnight Indexed Swap (OIS) market would have been required if SONIA was chosen.": Record of Roundtable on Sterling RFRs: 6 July 2017, NatWest Markets, London.

14. The OSSG is chaired by Andrew Bailey, Chief Executive of the FCA, and Jerome Powell, Chair of the Federal Reserve Board. In addition, the Bank of England, Bank of Japan, Swiss National Bank, European Central Bank, European Commission, ESMA and FSMA and many other official institutions are involved.

15. ICMA Conference Panel video Madrid, 31 May 2018

Preparations by individual firms

The President of the Federal Reserve Bank of New York has said that "the transition away from LIBOR represents a significant risk event for firms of all sizes, and they should actively manage this transition through their existing frameworks for identification, management and mitigation of risk. Supervisors should continue to support this objective by ensuring that all firms are aware of the transition and that LIBOR-related issues are being addressed in a way that is commensurate with a firm's exposures and risks. More broadly, the official sector will continue to push market participants to take all necessary steps to mitigate the risks to financial stability from a disorderly transition."[16]

The *IBOR Global Benchmark Transition Report* [17] has set out a checklist containing some of the key steps that firms can already undertake. They include:

- *IBOR transition programme:* appoint a senior executive to manage a multi-year IBOR transition programme; establish a robust governance structure for the programme; allocate budget and confirm staffing needs; establish programme workstreams; and initiate internal stakeholder education.
- *Exposure to IBORs:* develop an inventory of products, financial instruments and contracts linked to IBORs; quantify the exposure to IBORs across core business lines and products; calculate financial exposure anticipated to roll off prior to 2019, 2020 and 2021; evaluate operations by assessing the impact on processes, data and technology; and implement reporting to monitor exposure to IBORs throughout the transition period.
- *Contractual issues:* review existing contracts and assess current fallback provisions by product and contract type; determine required repapering and client outreach; and work with trade associations and others on fallback provisions, contract disclosures and good practices.
- *Communication strategy:* define a communication strategy to begin educating clients on benchmark reform; and identify other external dependences (eg technology vendors) needed in transition planning.
- *Transition roadmap:* review OSSG and RFR working group publications, and transition and other available information; determine required infrastructure and process changes to support the transition to RFRs; and develop an implementation route map.

ICMA's role

22 The transition from the IBORs, including LIBOR, to RFRs is a considerable challenge. The authorities and the market will need to work together in order successfully to achieve the changeover without market disruption. In the process, the international bond market needs to be heavily involved. On behalf of its members, ICMA is playing an important role:

- by participating in the RFR Working Groups in the UK, the euro area and Switzerland;
- by arranging opportunities to raise market awareness about the transition to RFRs through ICMA committees and working groups, market forums and other forms of communication;
- by using the ICMA Quarterly Report and conference calls to communicate with members about the transition to RFRs;
- by keeping the ICMA webpage on international benchmark reform and the transition to RFRs up-to-date with relevant official and ICMA material; and
- at the request of ISDA, and in conjunction with AFME, SIFMA and SIFMA AMG, by supporting the global benchmark survey on the transition to RFRs undertaken by EY.[17]

Contact: Paul Richards
paul.richards@icmagroup.org

16. William Dudley, President of the Federal Reserve Bank of New York: *The Transition to a Robust Reference Rate Regime*: Bank of England Markets Forum 2018, Bloomberg Headquarters, 24 May 2018.

17. EY with ISDA, AFME, ICMA, SIFMA and SIFMA AMG: *IBOR Global Benchmark Transition Report,* June 2018.