

## KEY POINTS

- Fall back language together with any "successor rate" language in financial contracts provide an opportunity for incorporating the fixings generated by an alternative reference rate into the existing terms of legacy contracts once the primary rate has been withdrawn, although doing so could present problems of coordination and competition law.
- Parties are asking what the consequences will be of different calculation methodologies in different currencies given the move away from London as the location for the calculation of all but one of the risk-free rates (RFRs) (ie SONIA).
- A particular issue is the effect of the economic divergence between LIBOR and the RFR over the lifetime of a contract (RFRs reflect less credit risk and therefore the fixings are lower). To maintain settled economic expectations in legacy contracts, legacy contracts could incorporate the new RFR plus a conversion factor (designed to maintain the value of existing obligations).
- Another issue is the question of how to introduce an overnight RFR as an appropriate substitute for a benchmark with longer tenors.

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## The market transition pathway from LIBOR to "risk-free" rates: is it passable?

In this article, Joanna Perkins and Jennifer Enwezor examine the progress made towards meeting the objectives identified in the Financial Stability Board's February 2013 review of benchmarks and ask whether the goal of a market-wide transition to new reference rates remains achievable.

In June 2012, the US Commodities and Futures Trading Commission issued a penalty notice to Barclays Bank for manipulation of LIBOR and the Euro Interbank Offered Rate (EURIBOR) between 2005 and 2009. This was the first blow in a scandal with far-reaching implications for the financial markets. Many of the world's largest banks subsequently were found to have colluded on price-fixing in order to boost the profits of traders.

The abuse prompted a wholesale review of benchmarks by national and international regulators, including a review of key IBOR benchmarks (LIBOR, EURIBOR and TIBOR) initiated by the Financial Stability Board (FSB) in February 2013, which ultimately called for an end to the financial markets' dependency on the IBOR benchmarks.

The FSB review culminated in a report, 'Reforming Major Interest Rate Benchmarks', published in July 2014 which concluded that:

- existing IBOR benchmarks and other potential interest reference rates based on unsecured bank funding costs should be strengthened by

underpinning them to the greatest extent possible with transaction data.

- alternative, nearly risk-free rates should be developed and participants in the derivative markets should be encouraged to use these rates in place of the IBORs.

To achieve these objectives, the report recommended significant changes to the IBORs to anchor the rates more fully in transactions representative of the markets they are supposed to benchmark. The report also recommended moving markets in certain financial instruments, particularly derivatives, away from their customary reliance on the IBOR benchmarks and towards incorporation of "risk-free" or nearly risk-free rates (RFRs), typically those set by central banks.

Following the publication of the FSB report, its recommendations on benchmark transition and evolution were vigorously addressed. The Federal Reserve Bank (FRB), the Bank of England, and the Swiss National Bank (SNB) quickly established market consultative groups with a view to identifying appropriate RFRs to replace US Dollar, Sterling and Swiss Franc

LIBOR, respectively, and the Bank of Japan established a study group on RFRs for unsecured interbank lending in yen in June 2015. (The European Central Bank also established a Working Group to identify and adopt an alternative risk-free overnight rate in the euro area as an alternative to both euro LIBOR and EURIBOR but not until September 2017.) Meanwhile, proposals for LIBOR, TIBOR and EURIBOR evolution were planned and published by ICE Benchmark Administration (IBA) and the Japanese Bankers' Association TIBOR Administration (JBATA) – which both implemented structural changes as a result – and the European Money Markets Institute (EMMI).

In 2017, regulators took stock of all that they and market participants had achieved in the field of benchmark reform in the five years since the LIBOR scandal first broke. In so doing, national authorities appeared to acknowledge the insuperability of the challenges facing their attempts to implement the first of the FSB's published recommendations for reform. This acknowledgement was implied, first, in a statement by the European Securities and Markets Authority (ESMA) in conjunction with EMMI to the effect that data analysis undertaken as part of efforts to reform EURIBOR indicated that it would not be feasible to evolve the current EURIBOR methodology to one based solely in transactions. (EMMI's

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findings on this score were corroborated by analyses carried out by the Belgian Financial Services and Markets Authority.) Then the acknowledgement was reflected in a speech made by Andrew Bailey of the Financial Conduct Authority (FCA) in July 2017, the broad thrust of which was that there should be a move to transition markets away from LIBOR towards alternative reference rates by 2021.

The year marked greater success in making progress towards the FSB's second objective – the identification of RFRs – particularly in respect of reference rates which might be adopted by the markets in place of LIBOR. The year began – or, rather, 2016 ended – with the publication by the Bank of Japan study group reporting on 28 December 2016 that it would adopt an uncollateralised overnight call rate calculated and published by the Bank of Japan (TONAR) as its preferred RFR. Industry groups established by the Bank of England, the Federal Reserve and the Swiss National Bank followed, identifying in each case a preferred RFR for interest rates payable on transactions in their respective currencies. In April 2017, the Bank of England's Working Group on Sterling Risk-Free Reference Rates announced the Sterling Overnight Index Average (SONIA) as its preferred RFR for use in sterling derivatives and relevant financial contracts on the back of reforms to the methodology announced earlier by the Bank of England. Then, in June, the Federal Reserve's Alternative Reference Rates Committee (ARRC) selected the Secured Overnight Financing Rate (SOFR), to be published by the NY Fed with the Office of Financial Research, as its preferred alternative reference rate. And, finally, in October, the National Working Group on Swiss franc reference rates, established by the Swiss National Bank, recommended the Swiss Average Rate Overnight (SARON) as an alternative benchmark to Swiss franc LIBOR. In each case, the RFR identified as an alternative to LIBOR was an overnight rate. Meanwhile, in September, the European Central Bank said it would work with other European agencies, including

the European Commission and ESMA, to identify a risk-free reference rate for the euro area as an alternative to EURIBOR by 2020.

The shape of things to come, then, emerged more fully into view in the course of 2017. In the words of Andrew Bailey:

"We do not think we will complete the journey to transaction-based benchmarks if markets continue to rely on LIBOR in its current form. And while we have given our full support to encouraging panel banks to continue to contribute and maintaining LIBOR over recent years, we do not think markets can rely on LIBOR continuing to be available indefinitely.

Work must therefore begin in earnest on planning transition to alternative reference rates that are based firmly on transactions. Panel bank support for current LIBOR until end-2021 will enable a transition that can be planned and can be executed smoothly. The planning and the transition must now begin."

### A TRANSITION FROM LIBOR

The market transition pathway from LIBOR to SONIA and other RFRs has been considered to differing degrees by the working groups established by the various central banks concerned. The Bank of Japan's study group on RFRs established a working group to consider how best to activate the Overnight Index Swap (OIS) market referencing TONAR. This resulted, ultimately, in a decision by the Japan Securities Clearing Corporation (JSCC) to launch a new set of TONAR swaps with one-month, three-month and six-month coupon payments in March 2018, to assist the swaps markets in making a transition away from yen LIBOR. In November 2017, the Bank of England reconstituted its working group on RFRs for Sterling, "to catalyse a broad-based transition to SONIA over the next four years across sterling bond, loan and derivatives related markets, so that SONIA is established as the primary sterling interest rate benchmark by end 2021". The working group is progressing its

activities through a number of subgroups focusing on transition for the futures, pensions, fixed income and syndicated loan markets. These groups are chiefly looking at the adoption of SONIA in new contracts and how to stimulate market liquidity but a group established by the International Swaps and Derivatives Association (ISDA) is examining fall back arrangements in derivatives contracts and will, in that context, address many of the issues that arise for legacy contracts on market standard terms. The ARRC has been equally busy. On 31 October 2017, the committee adopted a "Paced Transition Plan with specific steps and timelines designed to encourage use of its recommended rate" and its members have been contributing to the ISDA project on fall back arrangements and other aspects of the robustness of legacy contracts.

These various initiatives are proceeding with full consideration of the risks and opportunities presented by benchmark transition. These risks were first identified, and a schema for analysing them was first developed, in a report by a Market Participants Group (MPG) established by the FSB prior to the publication of its own report in 22 July 2014. The MPG Report identified four alternative transition pathways for markets to follow in the case of benchmark reform:

- a "seamless transition" from one methodology to another (later referred to as "evolution" rather than "transition");
- a "successor rate" pathway, whereby one benchmark is withdrawn and replaced by another with a different but similar identity;
- a "market-led" transition, involving the voluntary adoption of a different benchmark published in parallel to the legacy benchmark; and
- a "cut over" transition, whereby adoption of a new benchmark is encouraged by notice to users that the legacy benchmark will be withdrawn at a future date.

The transition from an IBOR benchmark to an RFR must necessarily fall into one of the latter three categories, since the whole premise of the exercise is that the alternative

rate is fundamentally different from the original. Although the pathway contemplated by central banks and their working groups is not yet fully crystallised, it seems likely that it will involve a period of "market-led" transition, which may, in some cases, be followed by the withdrawal of the IBOR and a hard "cut over".

If LIBOR cannot be sustained after 2021, it is transfer of legacy contracts to the nominated alternative rate, rather than new ones, which is likely to give rise to the most significant economic and legal questions because, inevitably, the withdrawal of the old benchmark – with or without the introduction of a new one – has the effect of defeating the parties' expectations as those were settled at the outset of the contract. Among the legal risks for legacy contracts in these circumstances is said to be the risk of contract frustration. This risk materialises when the subject matter of a contract has been destroyed, or has otherwise become unavailable, and as a consequence the performance of the contract by one or both parties is rendered impossible. It is often said that benchmark disruption or withdrawal would present a risk of frustration. Occasionally, the same thing is said of benchmark transition or even of radical benchmark evolution – on the premise that the evolved benchmark no longer shares the identity of the original benchmark. The chances that a contract will be held by a court to have been frustrated are said to be vanishingly small, however, wherever the contract is drafted so as expressly to allocate the risks of the allegedly frustrating event as between the parties. This is exactly what most financial markets contracts on market standard terms aim to achieve with clauses that provide for fall back arrangements ("fall back clauses") – for example, rate-setting by a nominated calculation agent – in the event of benchmark withdrawal.

If financial instruments avoid the Scylla of frustration (as one would expect them to do), they may yet be caught in the Charybdis of their own terms. Some contracts include clauses which provide for their termination in the event of "force majeure" or impossibility. Parties may seek

to argue that benchmark withdrawal renders performance of the contract impossible and that their obligation to perform the contract is discharged as a result. Many contain the "fall back" clauses mentioned above but these – which typically refer to bespoke arrangements for rate-setting by the lender or agents of the parties – may be cumbersome to apply on a daily basis and, having been designed to operate during a break in the continuity of benchmark provision, may prove disruptive to apply on a market wide and permanent basis.

Despite the difficulties of applying fall back clauses it is just possible that they – together with any "successor rate" language in financial contracts – will provide the key to an effective benchmark transition. That is because they provide an opportunity for incorporating the fixings generated by an alternative reference rate, ie the new RFR, into the existing terms of legacy contracts once the primary reference rate has been withdrawn, although doing so could present problems of co-ordination and/or competition law. For example, the fall back clause in many market standard documents refers to a series of alternative measures which the parties must take in the event the principal reference rate becomes unavailable. The first fall back may be "reference banks" – incorporating a fixing derived from an average calculation performed on values submitted to the calculation agent by a number of banks who have agreed to act in the capacity of reference banks for exactly this purpose – and the second or third fall back may be "calculation agent", incorporating a fixing determined by the parties' calculation agent, as appointed under the terms of the contract. If reference banks and calculation agents were all to indicate a value consistent with the new alternative reference rate then financial contracts would converge on the new rate in the way they had previously converged on LIBOR.

The first point of caution to note about this approach as a solution to the problems identified above is that it would not eliminate the challenges of transition, it would only change them. The floating

rate of interest payable on a loan, under a swap or on a Floating Rate Note is the "price" of the contract. Co-ordinating the actions of sellers – in this case lenders or swap dealers – around price-setting risks contravening both European and domestic competition law. Although competition law issues are beyond the scope of this article (and beyond the authors' area of expertise), it can be noted that an agreement on pricing will *prima facie* contravene Art 101 of the Treaty on the Functioning of the European Union and s 2 of the Competition Act 1999, (unless the arrangement represents a contribution to technological or economic progress, or improves the production or distribution of goods, to the ultimate benefit of consumers). Presumably, then, an arrangement to introduce a successor reference rate by means of the fall back mechanisms of reference banks and/or calculation agent – if it were possible at all – would require stringent oversight, or even active management by national authorities, to counteract the inherent conflicts of interest to which collective price-setting arrangements ordinarily give rise.

Even if the legal risks of frustration and the abrupt termination of contracts can be minimised, however, this does not necessarily mean that benchmark transition from IBOR rates to the RFRs can proceed without a hitch. Several other pressing questions remain to be resolved. Some of these questions are economic or financial ones about the value of the contract. RFRs, by definition, reflect less credit risk and, for that reason, the fixings tend to be lower. In the context of a swap contract with an unexpired term of several months, or even years, that difference could mean that the transaction has a significantly different market value than it would have had.

Another obvious issue is that fixings for the IBOR benchmarks are produced in multiple tenors, or maturities. LIBOR, for example, in addition to being an overnight rate, is a term rate produced in maturities of one week, one month, two months, three months, six months and 12 months. The input data in each case is transactions of the relevant maturity. Thus, the LIBOR six-

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month daily fixing is calculated – subject to the availability of transaction data – on the basis of funding transactions between banks with a maturity of six months. By definition an overnight rate will always be calculated on the basis of overnight transactions and that means the rate will be economically different than a rate calculated on the basis of transactions with greater maturity (which carry greater credit exposure).

A final question concerns the use of different calculation methodologies in different currencies and the move away from London as the location for the calculation of all but one of the RFRs (ie SONIA). To date, LIBOR has provided one methodology for calculating the cost of deposits in USD, CHF and GBP in the London markets. Now, interested parties are asking what the consequences will be for the foreign exchange derivatives markets and other areas of financial activity of diversifying the location of the calculation across currencies.

This last question may be the easiest to tackle. Although there may be some impact from the divergence in methodology on contracts, cross-currency swaps – markets and market contracts are unlikely to suffer disruption on account of arriving at divergent methodologies for different currencies, if all other aspects of transition proceed smoothly. There are a couple of considerations which support this view. The first is that the markets have recently experienced a widening in cross-currency basis, which is the basis spread added (mainly) to USD liquidity funded by means of foreign exchange swaps using the Japanese yen or the euro as a funding currency. This spread started to widen at the beginning of 2014, driven chiefly by a decrease in the supply of, and an increase in demand for, USD (see Arai, Makabe, Okawara and Nagano; Bank of Japan September 2016). The natural consequence has been that market participants are already acclimatised to an increasingly wide basis spread and have, to some extent, been prepared by this for any further widening as the result of introducing different methodologies for interest calculations in different currencies.

The second consideration is the existing disparity in the profiles of the funding markets across different LIBOR currencies. For example, the market in EUR LIBOR loans is weighted towards loans with a longer maturity compared with, say, YEN LIBOR transactions, the bulk of which tend to be short term. This means that the existing methodology already does not work in the same way (ie on the basis of the same input data flow) across currencies. It also means that LIBOR users would not experience the transition of legacy contracts in the same way across currencies, even if the same methodology were adopted for all the new benchmarks.

No matter what the calculation methodology and no matter the input data, an RFR will necessarily and by definition reflect less credit risk than a term rate like LIBOR. A bigger issue, then, than divergence across currencies is the effect of this economic divergence between LIBOR and the RFR over the lifetime of a contract. Roughly speaking, this issue is predominantly a market one in the case of new contracts and a legal and operational one in the case of legacy contracts. The issue for new contracts is whether lenders and swapdealers are willing to enter into contracts that will, without any adjustment to other terms, pay less interest. One consideration which will doubtless weigh with market participants is that the collateral which provides security for swaps deals generally attracts interest at the relevant overnight accommodation rate (ie at the relevant RFR), a fact which has already led to the use of OIS rate discount curves in pricing swaps.

The issues for legacy contracts, however, are more complicated. Parties to these contracts had settled economic expectations at the point of their agreement and replacing LIBOR with an RFR in their contract during its term would confound their plans. These are circumstances in which ordinarily it might be appropriate for parties to bring an end to their contract under a negotiated settlement but in this context, that would be probably impossible (given the volume of contracts referencing LIBOR); certainly

disruptive; and highly likely to introduce both basis and legal risk in relation to back-to-back contracts. This problem is not new. A similar issue arose in relation to currency transition when the single currency was introduced. Legacy contracts had to incorporate the new currency (euros) or be satisfactorily resolved in some other way when the old European currencies were withdrawn and legislation was introduced to achieve just this result and to safeguard against the possibility of contracts coming to a disorderly conclusion under legal doctrines like *force majeure* or frustration. One element of the arrangements was the introduction of a standard “conversion factor” for each of the old currencies which, if incorporated, was designed to maintain the value of existing obligations on redenomination.

In the present context, the options for a smooth resolution or transition of the bulk of legacy contracts would appear to be three:

- to secure market participants’ collective agreement to “repaper” (ie vary) their contracts in bulk, incorporating the new reference rate and a new, multilaterally agreed, conversion factor to bring obligations into economic line with projected LIBOR values. This might be done, in part, under the protocol procedure introduced by industry associations to vary market standard terms;
- to publish a new daily “LIBOR+” rate on the usual venues comprising the RFR plus the conversion factor (in combination, as a single fixing), effectively replacing LIBOR, in the hope that the existing contractual reference rate definition would incorporate this rate; or
- co-ordinating action around fall back provisions in market standard terms so that these would operate, upon the withdrawal of LIBOR, automatically to incorporate the new RFR as the rate identified by all “reference banks” or the “calculation agent”, say.

None of these options is flawless: the first is acutely labour intensive and runs the risk of omission; the second depends on the

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collaboration of the LIBOR administrator and/or any relevant publishers. It also places a key discretionary determination (namely the calculation of the conversion factor) in the hands of a single commercial entity, which is not aligned with the objectives of recent regulatory reforms; and the third relies on an unprecedented degree of market coordination around price-setting and runs the risk, therefore, of contravening competition law unless adequate safeguards and a clear public interest justification are established. It also relies on the withdrawal of LIBOR in order to trigger contractual fall back provisions, a development which its current administrator has adamantly refused to contemplate.

It remains to be seen which path will be adopted by the majority of market participants but the decision will not be made by firms individually, in a vacuum. They will benefit from the work of the RFR working groups, as well as guidance from international and national regulators. Supervised entities will also be subject to the constraints of the EU Regulation on Indices Used as Benchmarks (reg 2016/1011), which entered into application on 1 January 2018 and which imposes obligations to select robust alternatives to existing rates and to have in place cogent plans for transition in the event of benchmark withdrawal (see Art 28).

The final issue outlined above is the question of how to introduce an overnight RFR as an appropriate substitute for a benchmark with longer tenors. The answer reportedly favoured by industry is that the SONIA administrator should publish rates fixed at the longer tenors so that one value is adhered to by the market as a whole. A working group is examining the possibilities for calculating these values. In theory, aspects of the calculation could include a range of factors, including the extrapolation of rates from the existing input data on brokered overnight deposits and the use of statistical techniques simulating probabilistic outcomes. The terms of reference of the working group, however, specify parenthetically that it will be reviewing data inputs and calculation methodologies which focus on the OIS market:

“(eg based on pricing data from SONIA futures contracts, OIS order books on MTFs, or transaction data from swap data repositories).”

One way to understand this is to consider that the value fixed on any given day for a three-month term SONIA rate would reflect the discounted fixed rate payable under an average three-month SONIA swap. It will be important for those setting the calculation methodology to consider how to address any present or future concerns about the depth and breadth of transaction data available in the OIS market, the integrity of the data and of the means of collecting it and the means of avoiding circularity in the calculation (a three-month SONIA swap is priced on the basis of expectations about how the overnight rate will perform in a world of investment opportunity costs and so establishing a floating term rate from the fixed rate, in essence, returns to the question of expectation.)

### CONCLUSION

This article has outlined the significant questions and difficulties which must be addressed if the path from the IBOR benchmarks to alternative reference rates is to be as smooth as possible for market participants expected to undertake the journey. The view has been expressed that a divergence in the methodologies which will be adopted in different jurisdictions with respect to different currencies is a less significant obstacle to an efficient transition than is sometimes supposed. And there has been discussion of some of the options for tackling the other challenges of transition, including the economic differential between projected IBOR values and projected RFR values and the construction of longer-dated maturities from overnight rates. The proper inference to draw from this brief account of developments is that, at this early stage, the transition path looks tough but not impassable. ■

#### Further Reading:

- Benchmark transition under the new EU Regulation (2017) 10 JIBFL 610.
- A post-LIBOR world: how will the English courts address legacy contracts after 31 December 2021? (2018) 1 JIBFL 3.
- LexisNexis Loan Ranger blog: Replacing LIBOR: current position and implications for loan agreements.