THINK BONDS

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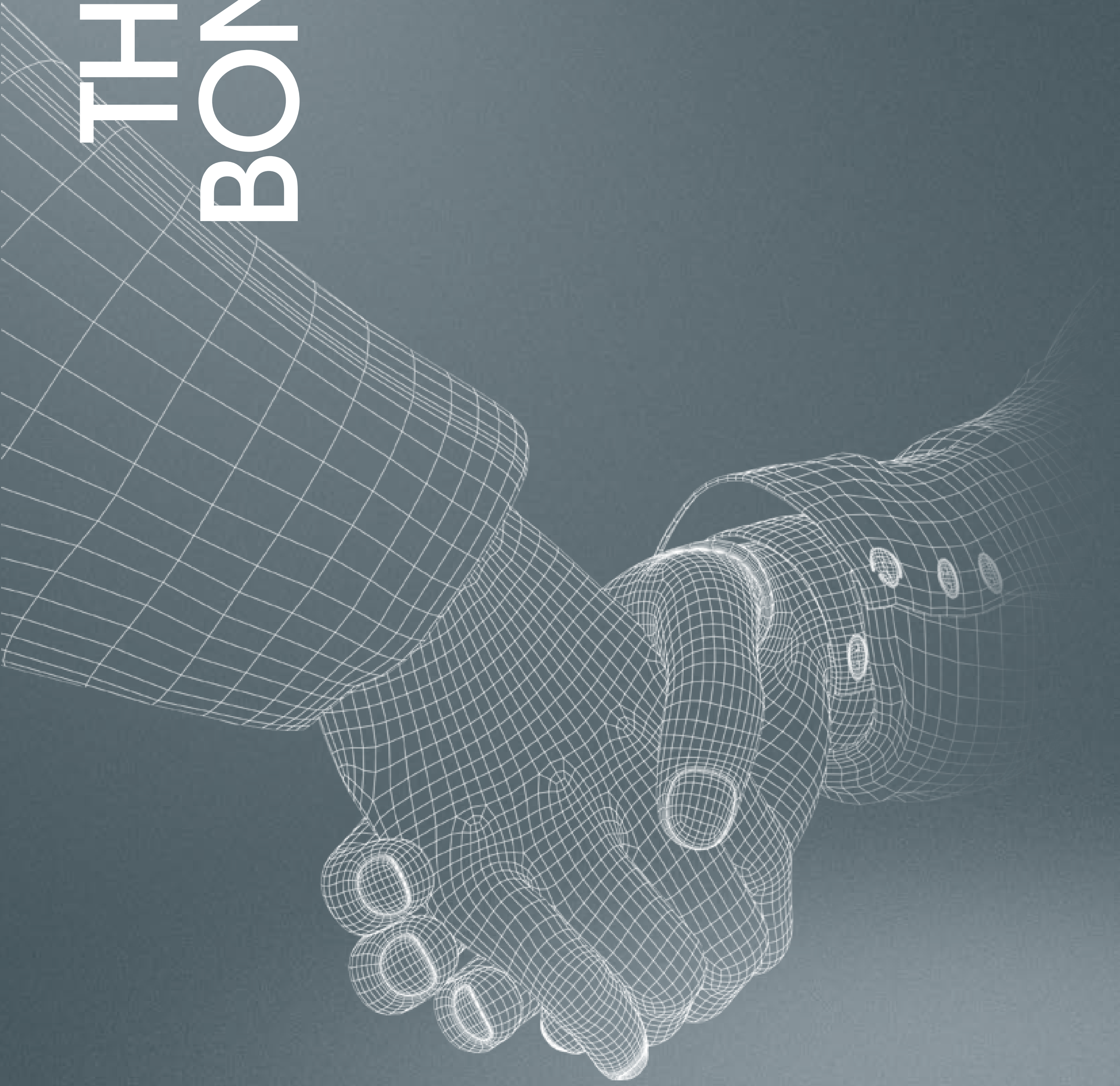


October 2017

Heir to LIBOR

The Financial Conduct Authority (FCA) has recently announced that LIBOR, the underlying rate in around US$350 trillion worth of contracts for banks, corporate treasurers, pension plans and customer mortgages will be abolished by the end of 2021.

In this THINK Bonds edition, we outline the reasons for this, explore the potential impacts and focus on unanswered questions for investors.

The background – why?

The phasing out of LIBOR has come as a consequence of the financial crisis. While there has been significant governance improvements over the calculation of the rate (following the LIBOR manipulation scandals of recent years), the volume of unsecured term lending between banks has fallen dramatically since 2008. The market is now deemed to "no longer be sufficiently active". With the term deposit markets, which underpin LIBOR rates, no longer a meaningful source of bank funding post-crisis, this required the rate to be based on quotes (not actual transactional data).

As highlighted by Andrew Bailey in his recent speech: "To take an extreme example, in one currency–tenor combination, for which a benchmark reference rate is produced every business day using submissions from around a dozen panel banks, these banks, between them, executed just fifteen transactions of potentially qualifying size in that currency and tenor in the whole of 2016".

As banks no longer lend to each other on an unsecured basis even a reformed LIBOR would rely on expert judgement to supplement transactional data.

While the writing has been on the wall for a while, by setting an end date this should force a quicker journey to an alternative benchmark. The FCA has persuaded banks to voluntarily continue producing LIBOR during the intervening period. On the one hand, there is reason to think that banks may withdraw from providing LIBOR quotes given the cost and risks of submitting based on 'expert judgements', though given its widespread use in almost every financial contract, they will need it to be retained until there is a viable alternative.

This reform is part of a global phenomenon, as LIBOR is quoted for several other major currencies (USD/EUR/JPY/CHF/AUD). Each national regulator is seeking to identify an appropriate risk-free rate reflecting the underlying transactions and structure of their domestic market. The US market for example, has decided on a secured funding rate (broad Treasuries repo financing rate), as has Switzerland, whereas the UK and Japan have chosen to use unsecured overnight rates.

Welcome to SONIA

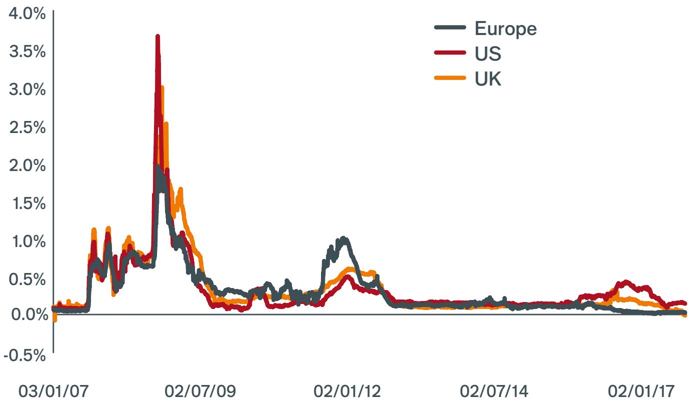
After reviewing a number of alternatives for an appropriate risk-free rate, the Sterling Overnight Index Average (SONIA) rate has emerged as the successor to LIBOR.

SONIA: an unsecured interest rate for commercial deposit transactions of one business day maturity (ie, overnight).

In April 2017, the Risk Free Rate Working Group in the UK confirmed that reformed SONIA would be the proposed alternative benchmark. Importantly, this overnight lending market is underpinned by nearly £40 billion of actual transactions per day. Moreover, as a well-established reference rate in the sterling markets already, the ease with which users could begin to adopt the new rate is to the benefit of SONIA (it is the reference rate for sterling overnight index swap (OIS) market). Significant amounts of banks' loan and deposit books are linked to the Bank Rate (eg, retail mortgages, SME loans, retail deposits), meaning that SONIA was also preferred given its close correlation with the Bank of England base rate.

How does SONIA compare to the LIBOR rates currently used? The chart below shows the difference between overnight rates (SONIA in the UK) and 3-month LIBOR in the UK, US and euro markets. Typically, 3-month LIBOR is higher than the overnight rate reflecting the term effect; ie, lending for a 3-month term has greater credit risk than overnight, requiring a higher interest rate to compensate for this (uncollateralised) credit risk. Moreover, during times of financial stress such as the 2008 global financial crisis and the 2011 sovereign debt crisis, this risk premium increases materially. So, at first glance the risk-free rate would be lower than current LIBOR.

Chart 1: Difference between overnight and LIBOR rates since 2007



Source: Bloomberg, Janus Henderson Investors, as at 29 September 2017.

Note: Difference between overnight rates (UK (SONIA), US (Overnight Index Swap OIS), Europe (EONIA)) and corresponding 3-month LIBOR rates

Taking a step back, it can be argued that LIBOR may not be the best measure of risk-free interest rates in the first place due to the bank credit component. LIBOR is also widely used in loans to non-financial corporates, and, in some countries, even in retail financial markets to calculate the interest that a consumer pays on a mortgage. It is difficult to see a benefit to the corporate or retail borrower from having increased interest payments if bank credit quality declines and LIBOR rates therefore increase.

SONIA better represents a 'risk-free rate' as it does not include a component reflecting bank credit risk, which can fluctuate significantly over time.

However, the use of LIBOR is dominant within the financial system, but this dependency is more a reflection of the concentration of liquidity and exposure in LIBOR instruments than it necessarily being the best measure of a risk-free rate. As a result, the 'network effects' (in economics, where a good or service becomes more valuable when more people use it), are significant reflecting the pervasive use of LIBOR in financial contracts and linkages between LIBOR based securities and the underlying derivatives (hedging) markets.

Any new benchmark measure must have widespread adoption and buy-in across all users and a range of instruments. This is necessary to ensure a deep, liquid market develops in time and that dealers/counterparties can net offsetting transactions, without significant basis risk. A situation where LIBOR stops being produced before a viable, liquid market in the alternative benchmark rate has been created, would result in additional costs and risks for investors. As a result, we believe that incentives should be provided to spur the growth of the market in SONIA based instruments and that global coordination should be encouraged.

Does it matter? Key issues for institutional investors

Swaps market

The greatest concentration of financial contracts referencing LIBOR is in the derivatives markets. For example, in sterling, more than £30 trillion of over-the-counter derivatives and £4 trillion of exchange-traded derivatives (on a gross notional basis) reference LIBOR.

The International Swaps and Derivatives Association (ISDA) has already established working groups to agree fallbacks in the event that LIBOR is unavailable. The reference for these fallbacks is expected to be the relevant risk-free overnight index swaps rate for each currency (SONIA in the UK), with the addition of a spread for longer terms. The calculation of this spread is presently yet to be determined in any jurisdiction, and a market solution will need to be developed, with potential significant consequences for existing contracts.

Moving to a SONIA based benchmark has benefits. Typically swap portfolios, which directly referenced LIBOR, would be valued by projecting the future cash flows based on LIBOR rates and then discounted to a present value using SONIA rates. This created residual exposure for counterparties (the change in the present value is dependent on both the LIBOR curve and the SONIA OIS curve), which resulted in (higher) pricing, creating an additional inefficiency for those transacting LIBOR swaps. This should be significantly reduced.

Overnight or term spread?

Most contracts reference a term LIBOR rate of three or six months. In the past, these term quotes were provided directly by banks. Going forward, there is a question as to how this term rate will be provided. One potential approach is to calculate a one-off set of term credit spreads, which could be added to the SONIA rate.

It may still be feasible to use the overnight rate, compounded over the relevant payment period, instead of apply a term fixing of three or six months. However, this comes with some practical problems:

- existing contracts or benchmarks reference a 'term' LIBOR rate
- the use of compounded overnight rates means that interest payments would only be known in arrears. While market participants could adapt to such a system, many would likely prefer a forward-looking term rate so that swap interest payments that are due are known in advance.

Whether a 'term spread' over the risk-free rate can be included and how that spread is calculated are key questions.

Floating rate securities — asset-backed securities (ABS) and secured loans

While ISDA's remit covers derivative transactions, it will not cover the rates charged on instruments such as corporate loans, ABS, floating rate notes and mortgages.

For the secured loans market, the floating rate coupon is one of the primary marketing points for the loan market as it distinguishes it from other fixed income asset classes. Any change to LIBOR will have significant implications for lenders and borrowers, but we do not expect it to be forced to convert into a fixed rate instrument (other than in exceptional circumstances). In the secured loans market we are already seeing documentary provision to cover this uncertainty in new loan agreements, and expect pragmatic solutions to be found between lenders and borrowers for existing loan agreements already in place.

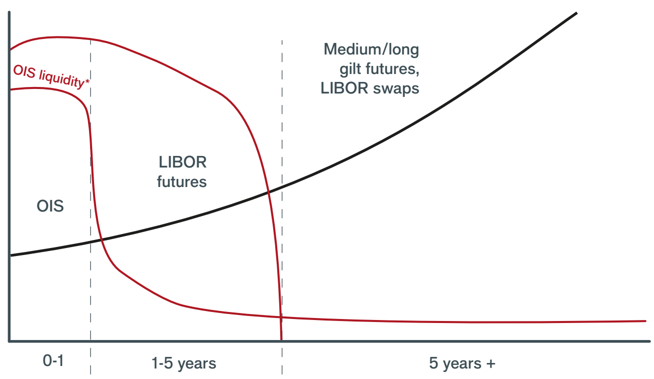
The offering documents for European asset-backed securities often have a stated fallback in the case that LIBOR is no longer available, though this varies from deal to deal. Typically, a waterfall of potential alternatives is provided, which can involve requesting LIBOR quotes from multiple agent banks. If no quotes are obtained then the reference rate will remain unchanged from its prior period; ie, the bond can potentially become a fixed rate bond, though this is not true in all cases.

This is one reason to expect LIBOR (in some form) to remain in use.

Liability driven investment (LDI) hedging

One of the challenges for pension funds with the LIBOR phaseout is that they have long maturity liabilities, which have historically been hedged with LIBOR based interest rate swaps. The vast majority of these are not going to have matured by 2021 so will need to be transitioned. As shown in chart 2 below, while a highly active SONIA market exists at short maturities, it is underdeveloped at longer maturities. Nearly 90% of SONIA referencing swaps have less than 5-year terms and 75% less than 1-year. Until this develops, there is a risk of a bifurcated market with poor liquidity and increased cost, which is not desirable.

Chart 2: Interest rate instruments and illustrative liquidity



Source: Bank of England, paper: Roundtable on Sterling Risk Free Reference Rate, 6 July 2017

*There are pockets of liquidity in OIS beyond one year

***Existing swaps*:**
For existing LDI swaps linked to LIBOR, there is a question as to how these will be valued from 2021 if LIBOR ceases to exist in its current form. Either the contracts will need to be converted into SONIA swaps (at a cost) or existing exposures hedged using a LIBOR-OIS basis swap.

A potential impediment to the transition of legacy portfolios could arise for institutional investors who own legacy swaps directly in segregated portfolios. If these trades cannot be grandfathered under existing European Market Infrastructure Regulation (EMIR) margining rules for uncleared derivatives, this change would necessitate posting of initial margin for those new/amended contracts, which would be more costly.

***New positions*:**
For new hedges or positions, the long maturity market in SONIA swaps needs to grow significantly in depth and liquidity. Given the volume of positions that would need to be moved by institutional investors such as pension funds and insurance companies, who are the major investors in these maturity buckets, there is a lot to be gained for by facilitating an orderly transition.

Development of a well functioning liquid market takes time. As a first step, the introduction of interest rate derivatives referencing SONIA would help support this, but in addition, we believe it is important that banks are given sufficient incentives to support the growth of this market. It should not be taken for granted that this will develop without support: the 30-year gilt future is a case in point where liquidity has failed to take off.

For investors in pooled LDI vehicles, managing the transition and clearing requirements will fall on the investment manager, rather than the scheme directly.

Portfolio benchmarks
In the UK, a number of funds use London interbank bid rate (LIBID) or LIBOR as a benchmark for performance measurement purposes for liquidity/cash funds and absolute return funds. It can also be used as a hurdle for calculating performance fees. As can be seen in chart 1 earlier, 3-month LIBOR is currently a higher rate than overnight SONIA.

- A benchmark of 3-month LIBOR would ideally move to a benchmark of 3-month SONIA (ie, SONIA plus a term spread) for consistency
- The index used should ideally be comparable to the basis on which underlying assets held in these funds — such as floating rate notes or ABS — are priced. This reiterates the point that no change can be made in isolation due to the pervasive use of LIBOR and the linkages between the different markets

Summary

While the transition to a LIBOR alternative in 2021 seems a long way away, we believe investors should start preparing. For now, there are more questions than definite answers, but we expect the direction of travel to be established over the next year.

Feedback and comments on the Risk Free Rate working paper were due by 29 September 2017. Given the importance of this subject, we will continue to update you as the situation develops.

Glossary
Please see HGi.co/glossary
for a glossary of financial terms
used in this document.

Past performance is not a guide to future performance. The value of an investment and the income from it can fall as well as rise and investors may not get back the amount originally invested.

Janus Henderson Investors
Henderson Global Investors merged with Janus Capital Group in May 2017.

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