BANK OF ENGLAND

Speech

Join the revolution! Why it makes business sense to move on from LIBOR

Speech given by

Andrew Hauser, Executive Director, Markets

At Risk Live, London

27 June 2019

I am grateful to Wayne Leslie for his help in preparing this speech, and to Peter Balint, Rohan Churm, Tom Horn, Al Hughes, Antoine Lallour, Adeshini Naidoo, Will Parry, Edwin Schooling Latter, Jugvinder Singh, Tim Taylor and Francesca Zwolinksy for their advice and comments.

Introduction

There seem to be two rather distinct themes to your conference today:

The first is all about opportunity, the future, things you might want to do: fintech, AI, new tools and ways of working. All symbolised by a rather inspiring yellow lightbulb icon on your agenda: 

The second is all about the grim stuff: black swans, operational risks, or whatever else might lurk in your 'hall of horrors' sessions later – and the things you have to do in response.

I'm not 100% sure which camp this speech has been put in. But I think there's a clue in the icon you've put next to my name in the programme – which is a revolutionary clenched fist… 

In one sense I understand why I've been given a pugnacious icon. The programme to move the market from LIBOR to risk-free rates is a huge undertaking. Its goal is vital, and simply stated: to eliminate the profound system-wide vulnerabilities posed by LIBOR. And the deadline is clear: end-2021. But delivering it is as complex a task as any the financial sector has faced over the past decade, involving a global network of market participants and public authorities, and touching most systems, products and markets in some way.[1]

Small wonder then that many firms see LIBOR transition as a 'must do' more than a 'want to do'.

But that perspective misses a key point: LIBOR is past its sell-by date – not just in risk terms, but in business terms too. It was designed to solve the problems of a very different era, when markets were far less transparent, and far less adept at packaging and repackaging risk. With the tools we have today, a post-LIBOR world offers many new and better opportunities: to meet the borrowing needs of households and firms; to allocate and manage risk; to express views on, or hedge against, the future paths of interest rates and credit risk; and to exploit new technologies. So more lightbulbs – fewer clenched fists!

Firms who grasp these opportunities early will have a real edge. In sterling markets, we have already seen how quickly specific instruments can switch away from LIBOR when the necessary foundations have been laid and first-line business teams then put their shoulder to the wheel. In Floating Rate Notes, sterling securitisations and large swathes of the cleared derivatives market, innovation and competition has driven a virtuous circle of rising liquidity and rising volumes. Taken together, these changes put sterling markets at the leading edge of global transition.

[1] For a summary of the case for LIBOR transition and an account of the early steps the Bank took to support it for sterling markets, see https://www.bankofengland.co.uk/-/media/boe/files/speech/2017/the-bank-and-benchmark-reform-speech-by-chris-salmon.pdf?la=en&hash=597E3C1B41FBFFAFB6A05DFFE148F1E0B53BEB3F

By contrast, firms that miss these opportunities risk finding themselves behind the curve: stranded with LIBOR-linked systems and obligations that are no longer fit for purpose. That risk is material – and will only grow as 2021 approaches.

Of course not every problem can be solved through innovation alone:

- Some require collective, or public sector, action – and that is being co-ordinated through the market-led Working Group on Sterling Risk-Free Reference Rates here in the United Kingdom, and similar bodies overseas. The report card for that collective process reads 'a lot achieved, a lot left to do', as we discussed at a conference at the Bank on 5 June.[2]

- And some *do* fall under the 'must do' heading for firms. To summarise the key conclusions of our first 'Dear CEO' exercise: you need to have identified and quantified your LIBOR-linked exposures; you need a granular transition project plan, including an identified responsible executive covered by the Senior Managers Regime (where applicable); you need to stress test that plan against the base case of LIBOR ceasing to exist at end-2021; you need to identify and manage your prudential and conduct risks; and you need to engage with the work of the relevant market working groups.[3]

But we won't get there through compliance and risk management alone. We also need businesses – your businesses – to grab the opportunities presented by a post-LIBOR world to meet customer needs in better, safer ways. In the rest of my remarks I want to cover three main topics. First, I want to summarise the business problem LIBOR was originally designed to solve – and how the world has changed since then. Second, I want to sketch some of the opportunities that a post-LIBOR world may bring – and thus why there is a business, as well as a risk, imperative to shift. And, third, I want to explain some steps we at the Bank of England are taking to de-risk our own LIBOR-related business.

Why LIBOR once made business sense – and what's changed

LIBOR's origins date back to the syndicated loan market of the late 1960s. Risky borrowers from developing or emerging markets were looking to raise large sums, in dollars, at term. But the most plausible lenders – US banks – faced two problems. First, rapidly-rising inflation and short term interest rates made it risky to fix the interest rate on such loans for the full term. And, second, caps on deposit rates under 'Regulation Q' made it hard for US-domiciled banks to raise the necessary funding. In their place, banks in London – often US-owned, but unencumbered by onshore borrowing limits – formed themselves into 'syndicates' to take slices of floating rate, dollar-denominated loans, funded by short-term, offshore dollar deposits.

[2] https://www.bankofengland.co.uk/events/2019/june/last-orders-calling-time-on-libor
[3] https://www.bankofengland.co.uk/-/media/boe/files/prudential-regulation/publication/2019/firms-preparations-for-transition-from-libor-to-risk-free-rates.pdf?la=en&hash=EA87BD3B8435B7EDF25A56C932C362C65D516577

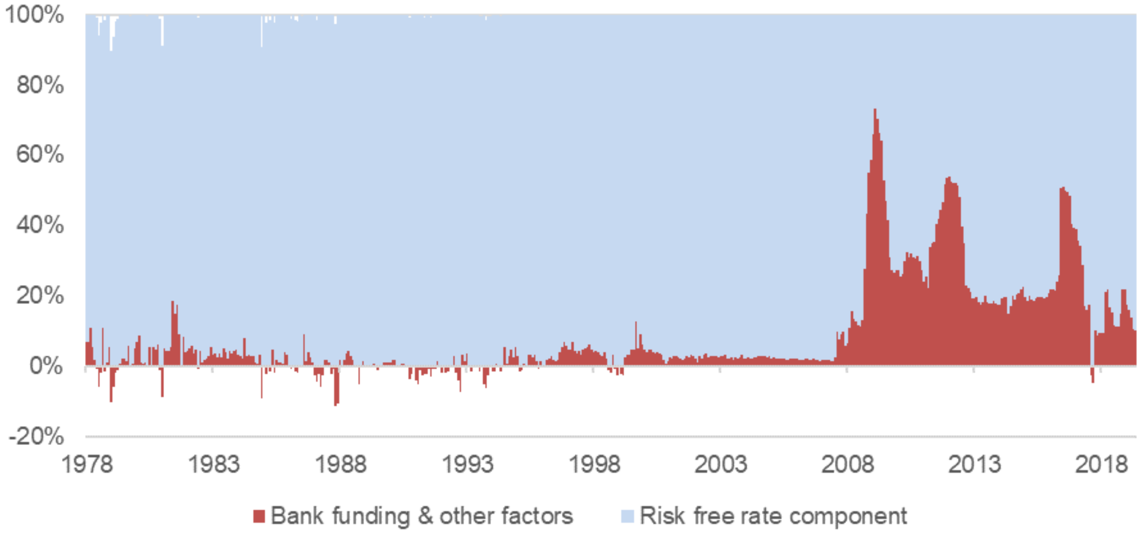
The challenge was what rate to charge. Rates on US Treasury debt were judged too volatile, affected as they were by volatile economic policy at that time, and 'flight to quality' flows. And giving any one firm in the syndicate the right to pick a rate was both inequitable and hard for the borrower to police. So the rate was instead based on an average of the short-term wholesale unsecured funding rates of a set of banks in the syndicate, adjusted for outliers, and periodically updated every three or six months. There was no incentive for banks to lowball this number, dubbed the 'London interbank offered rate', because that would reduce their income. And competition to be in the syndicate was meant to curb excessive increases.

This approach to setting a floating dollar rate was so successful that its use rapidly spread to pricing marketable corporate debt in the early 1970s – and later to the eurodollar markets that sprang up, first in the form of derivatives contracts to hedge against macroeconomic volatility, and then as bank funding instruments. The latter accounted for over half of the dollar money market by the mid-1980s. Demands for a more formalised governance and data collection process led to the BBA taking on responsibility for producing LIBOR in 1986. And the rest is history…

I have dwelt on this story not so much for its intrinsic interest than to illustrate just how far we have come from those origins. For me, three key points stand out:

- First, the early success of LIBOR led to its widespread adoption well beyond its original application. At first that posed few apparent problems, as bank funding costs moved in line with risk-free rates. But the financial crisis changed that. Market participants using capital instruments apparently unconnected to banks (for example, those issuing bonds, or seeking exposure to risk-free interest rates through derivatives) found themselves nonetheless heavily, and unexpectedly, exposed to variation in bank funding costs (Figure 1).

Figure 1: Proportion of three-month £LIBOR accounted for by bank funding costs and other factors



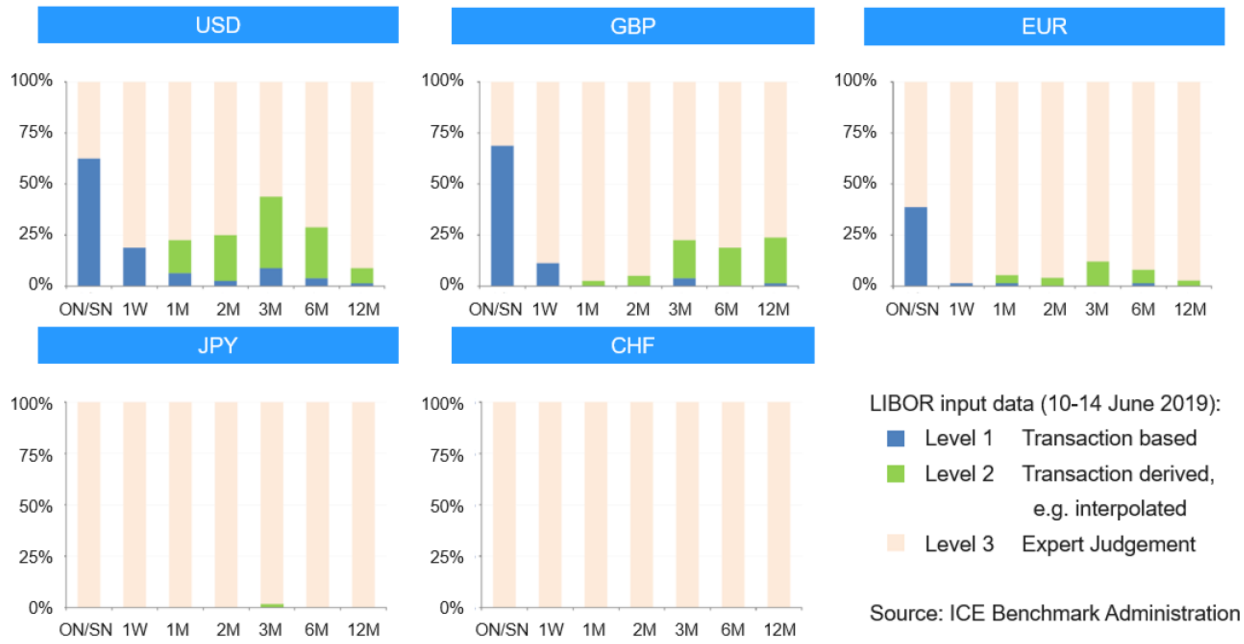
Note: risk-free rate component based on 3-month OIS rates where available, and on an adjusted Bank Rate prior to 2001. The red area of the chart is influenced by bank funding costs, as well as liquidity and supply/demand conditions.

Source: Bloomberg data and Bank calculations

- Second, LIBOR's widespread use persisted long after the underlying market on which it was based – the short-term wholesale unsecured funding market – largely ceased to exist. The use of judgment to set term LIBOR rates – once simply a convenient tool to fill in for temporary gaps in an otherwise well-specified curve – became the norm. And it was that 'design feature', coupled with weak governance, and the huge stock of assets priced off LIBOR, which gave such a strong incentive for manipulation. Though governance arrangements for LIBOR have since been strengthened, the vast majority of term LIBOR rates remain largely or wholly based on judgment, reflecting the absence of any material underlying market (Figure 2).

- Third, despite these two profound drawbacks, the informational and liquidity advantages of using a common established benchmark, coupled with the deep embedding of LIBOR in a range of systems, accounting and regulatory requirements have meant moving away from the use of LIBOR has required determination, forward-thinking and co-ordinated effort – even for those large parts of the market where it is manifestly the wrong rate to use.

Figure 2: Input sources for current LIBOR tenors[4]



What opportunities will a post-LIBOR world offer?

Taken together, these three observations show why LIBOR transition is both necessary from a risk perspective and beneficial for the long-term efficiency of the financial markets, whilst also being unpopular in terms of the one-off transition costs involved. Indeed, there is a material risk that those transition costs are obscuring a clear perspective of the commercial benefits to users of moving beyond LIBOR.

What are those benefits? It would be brave for me as a public official to attempt anything approaching a complete answer to that question. But let me sketch three broad areas that seem important to us.

First, successful transition away from LIBOR in its current form will unbundle the risk-free and bank sector credit risk elements of the interest rate curve. Including compensation for banking credit risk may have made eminent sense for those syndicated loans made in the 60s and 70s, without greatly affecting variation in the level of LIBOR (as shown in Figure 1). But many LIBOR-linked instruments no longer directly involve banks, yet remain exposed to variations in the perception of bank risk seen in the past decade. That does not reflect an efficient allocation of risk in the economy, and poses material economic and distributional risks at times of stress, as we saw during the financial crisis.

Using a near risk-free benchmark, such as SONIA in sterling markets, rather than LIBOR should, amongst other things:

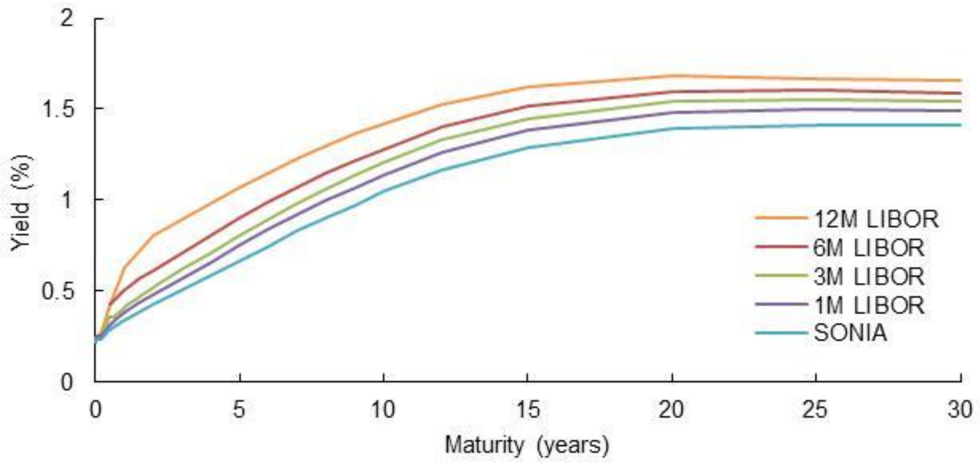
4 https://www.theice.com/publicdocs/ICE-LIBOR-Weekly-Report-10Jun_2019-14Jun2019.pdf

- Reduce the funding mismatch for Bank Rate tracker mortgages bundled into securitisations;
- Increase certainty for corporate borrowers wanting to lock in a fixed credit component at the time bonds are originated;
- Allow market participants to take or hedge risk related to the evolution of monetary policy rates through swaps and other instruments without unintentionally introducing a variable credit component; and
- Incentivise the development of new products, such as swaptions based on risk free rates, allowing more efficient hedging of interest rate volatility, either on their own or as part of structured products.

It has been argued that moving away from LIBOR will increase risks to banks, by making it harder for them to hedge variability in their cost of funding related to their own credit risk. It is clearly very important for banks to be able to manage this risk. But, as we have seen, LIBOR is not the right tool, because it no longer accurately measures banks' true cost of funding. And, even if it did, it is stretching credibility to suggest that the optimal place to house funding risk is with real economy borrowers. This feels a particularly fruitful area for innovation, drawing on the much more sophisticated range of tools now available for managing such risks.

The second broad area of opportunity in a post-LIBOR world comes from the potential for concentrating sterling liquidity into a single interest rate curve referencing compounded overnight SONIA. Today, someone managing a portfolio of sterling interest rate risk can easily find themselves having to deal with multiple different reference curves, each based on a different interest rate index. Figure 3 illustrates five commonly-traded curves (based on SONIA and the one, three, six and twelve month LIBOR fixings) at the start of August 2017 (shortly after Andrew Bailey's 2017 speech announcing the 2021 deadline for LIBOR transition).

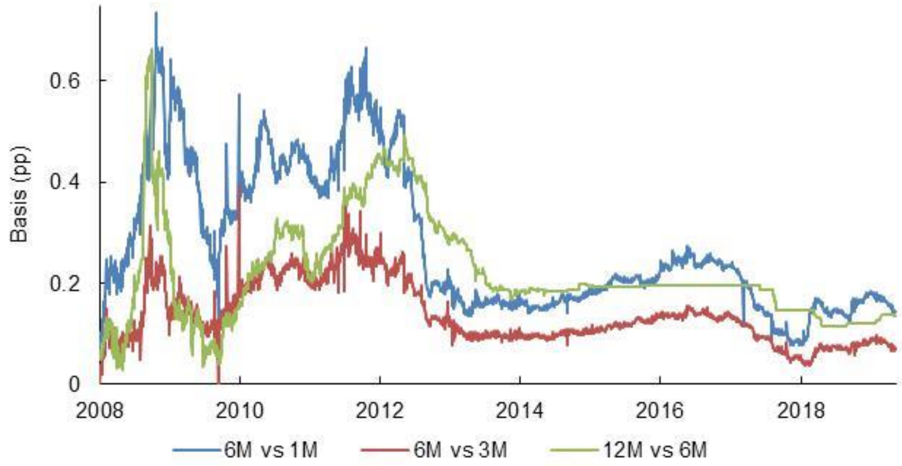
Figure 3: Zero coupon swap yield curves (as of 1 August 2017)



Source: Bloomberg data and Bank calculations

It is challenging enough to manage five or more different interest rate levels. But, to make matters worse, the gaps between these curves – so-called ‘basis’ – can also change quite sharply over time, reflecting variations in the credit premium associated with different lending tenors, structural flows, and other factors. Figure 4 illustrates how the basis between a three year sterling swap referencing the 6 month LIBOR fixing and three swaps referencing 1, 3 and 12 month fixings has moved since 2008. Managing interest rate risk in the presence of such movements is a risky and administratively complex process.

Figure 4: Basis between index tenors for a three year £LIBOR swap



Source: Bloomberg data and Bank calculations

LIBOR transition, if executed effectively, offers the prospect of concentrating the liquidity currently split across these multiple curves into a single SONIA curve, providing a materially deeper, more transparent and less complex single market in which to hedge interest rate risk. Unlike some other currencies involved in LIBOR transition, sterling starts with the distinct advantage of already having a liquid, well-traded SONIA curve at shorter maturities based on OIS swaps, supplemented by three futures contracts which also settle on realised compounded SONIA. Rolling the liquidity currently in term LIBOR curves into this curve would further improve price formation at the short end and, importantly, improve the definition of the curve at longer maturities too.

A single curve would have many potential benefits:

- It is the logical completion of the move away from LIBOR discounting to SONIA-referencing OIS discounting begun a decade ago, eliminating the basis between swap exposures and how they are valued, and thereby simplifying risk management of swaps portfolios;
- It could simplify the risks arising from the optionality embedded in certain products such as credit facilities where funds can be drawn across multiple tenors of benchmark reference rates;
- It would simplify curve construction and validation processes;

- A switch from term to overnight compounding would provide customers with the scope to construct a more complete interest rate hedge by using the minimum possible period for each observation[5]; and
- It could help guide further 'electronification' of the sterling market, through the provision of executable quotes and central limit order books, which itself could provide new opportunities for product development.

The potential role that a well-specified SONIA curve could play in helping to price cash instruments has been the subject of a great deal of discussion amongst market participants. Many issuers have found it easier than had been initially expected simply to use compounded realised SONIA as a reference rate. This has rapidly become a convention for a range of sterling Floating Rate Notes and securitisations; and recent announcements suggest similar approaches are also feasible for a range of corporate bonds and loans.[6] We urge all sterling lenders and issuers to consider following suit, making use of the guidance material now available or emerging from the sterling working group and other sources.[7] For the more limited range of borrowers in cash markets who feel an operational imperative for a forward-looking term SONIA rate, it should in principle be possible to take daily 'snapshots' of the SONIA curve at periodic maturities. A number of potential providers have come forward to develop such functionality.[8]

A third benefit of LIBOR transition lies in the opportunity it provides to modernise the technology and infrastructure supporting sterling markets. I have already mentioned the scope to bring the SONIA curve out of the shadows, deepening liquidity, increasing transparency and providing new term benchmarks. The emerging trading conventions for SONIA products will require new functionality in corporate debt management systems. In itself that is of course a cost. But that infrastructure upgrade provides a much-needed opportunity to rationalise aging architecture in both front and back office systems. Firms preparing to novate legacy LIBOR positions – one of the most challenging and sensitive parts of the transition programme – may choose to backload previously uncleared trades into clearing houses. That would allow them to take advantage of auction or trade compression mechanisms with providers working on developing innovative solutions specifically tailored to LIBOR transition. Not only will this increase the efficiency of those compression mechanisms, reducing the system-wide gross notional position, it will also reduce operational and counterparty risks for the system as a whole through the increased use of clearing. An infrastructure forum held at the Bank earlier this year revealed substantial interest from firms across the sterling markets to exploit these opportunities.[9]

[5] For example, this removes so-called 'stub risks' which arise from the potential for interest rates to change during the period covered by term fixings, typically of say, 3 or 6 months in the case of common LIBOR swaps.
[6] See for instance https://www.risk.net/derivatives/6726026/abp-noteholders-agree-frn-change-from-libor-to-sonia and https://www.rbs.com/rbs/news/2019/06/natwest-to-offer-markets-first-sonia-loan.html
[7] The global FSB also recently issued a 'user guide' designed to show the potential benefits of linking new business to daily risk free rates, available at: https://www.fsb.org/wp-content/uploads/P040619-1.pdf
[8] https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/statement-on-the-progress-on-adoption-of-risk-free-rates-in-sterling-markets.pdf?la=en&hash=24893EB812640CC61E640BEB98D8E7415439210B
[9] Material from this event on 31/01/19 is available at https://www.bankofengland.co.uk/markets/transition-to-sterling-risk-free-rates-from-libor

These observations illustrate only a small fraction of the ways in which transition away from LIBOR will change the landscape of sterling markets for the better. They are benefits for the market, and the economy, as a whole. But those who get there first stand to gain the most. Intermediaries, lenders and infrastructure providers who win the race to be ready to transact in SONIA, or develop and market innovative SONIA-based products, are more likely to be rewarded with larger syndicate shares, stronger and more remunerative loan growth, or more favourable flow revenue. As the pace of activity intensifies, we are seeing a sharp increase in interest from both lenders and borrowers in taking advantage of such opportunities. Those who don't, risk getting caught napping.

How the Bank is adapting its own operations to the use of SONIA

Before concluding, I want to spend a moment setting out some of what the Bank of England, as a financial institution with a sizeable balance sheet in its own right, is doing to ensure that it is also ready for LIBOR transition.

One of our key messages to firms has been to stop writing new LIBOR-related business that fixes or matures past 2021. The main area in which the Bank undertakes such activity is in the swap programme used to hedge the government's foreign exchange reserves, which we manage as agent for HM Treasury. Last year, we set up a separate project team to advise the Treasury on its options – scaling the issue, assessing the available trading methods and liquidity in alternative markets, and evaluating the implications for risk and return. In light of that advice, the Treasury decided some months ago to instruct the Bank to cease writing new LIBOR business with fixings falling after 2021, and transact only in SONIA-linked contracts. Our experience of SONIA market liquidity so far has been positive: at least as good, if not rather better, than expected.

Another way in which LIBOR potentially touches the Bank's operations lies in the collateral that we accept in our sterling liquidity facilities. Roughly a tenth of banks' current drawing capacity[10] is collateralised by assets referencing sterling LIBOR. Those assets include: securities paying a LIBOR-linked coupon, securitisations with embedded LIBOR-linked swaps; and LIBOR-linked loans, in either raw or securitised form. The Bank must be able to value and risk manage any collateral taken in its operations in case it has to take that collateral on to its own balance sheet in a default. As 2021 approaches, that will be increasingly difficult to do for some classes of collateral referencing LIBOR.

In many cases, firms may choose to re-reference LIBOR-linked collateral to SONIA, either by amending its terms or by issuing new instruments. We can already accept SONIA-linked collateral, subject to meeting appropriate eligibility requirements. An alternative would be to ensure LIBOR-linked collateral includes adequate fallback language specifying an alternative rate in the event that LIBOR ceases to exist. The main

[10] https://www.bankofengland.co.uk/-/media/boe/files/sterling-monetary-framework/annual-report-2018-19.pdf?la=en&hash=E4B7FDB6E9048DBD71F5C8CE4E00D3BE9F6A96A2

challenge arises with any remaining LIBOR-linked collateral that matures after 2021 but lacks adequate fallback provisions – and we are today publishing a discussion paper seeking views on how best to respond in this situation, through some combination of rising haircuts and future eligibility restrictions. No immediate changes are planned. But we are seeking input on these questions from market participants, by 27 September, to help the Bank formulate clear and well-signposted guidance on its future approach.

These examples illustrate the importance we attach to getting ahead of the curve on LIBOR transition, to condition and give clarity to market expectations about our likely policy settings, and to provide an early indication of what is possible.

Conclusion

With only 30 months to go until end-2021, it's time to join the revolution and move on from LIBOR. Companies and their boards right across the sterling markets need to focus on what they must do to shift new business from LIBOR to SONIA, and planning how to mitigate their legacy risk. And lenders need to be educating their customers too.

Just as importantly, though, firms should also be thinking creatively about ways to take advantage of the new opportunities of a post-LIBOR world to innovate and serve their customers better. I have tried to set out some of the ways in which this may be possible – but I am confident the best of you will quickly leave those far behind.

Thank you.