



RESERVE BANK OF AUSTRALIA

Speech

## Interest Rate Benchmark Reform

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Good morning and thanks to ISDA for the opportunity to speak here today.

Reform of interest rate benchmarks has been a key focus of central banks and financial regulators over recent years. <sup>[1]</sup> These benchmarks are referenced in a wide range of financial contracts, including derivatives, loans and securities. In light of the issues around LIBOR (the London Inter-Bank Offered Rate) and other benchmarks that have arisen over the past decade, substantial effort has gone in to reforming these benchmarks to support the smooth functioning of the financial system.

Today I will provide an update on the work underway to strengthen interest rate benchmarks. I'll focus on the developments since last year's announcement by the UK Financial Conduct Authority (FCA) on the future of LIBOR. In particular, I will highlight the important role for 'risk-free' interest rates as an alternative to credit-based benchmarks such as LIBOR. I will then summarise the work underway to ensure that the major interest rate benchmark for the Australian dollar, the bank bill swap rate (BBSW), remains robust for the long term. I will also discuss how some credit-based benchmarks, such as BBSW, can coexist with risk-free rates in a post-LIBOR world.

### Global Benchmark Reform and the Future of LIBOR

Central banks and financial regulators have been working with the industry to address the shortcomings in the major interest rate benchmarks, the 'interbank offered rates' (IBORs). For several years, the Financial Stability Board's (FSB's) Official Sector Steering Group (OSSG) has been monitoring progress on three work streams:

1. to strengthen the IBORs by anchoring them to a greater number of transactions, and improve benchmark governance

2. to identify robust alternative risk-free rates and encourage derivatives to be referenced to them instead of the IBORs
3. to ensure that contracts referencing IBORs include robust fall-back provisions to reduce the risk of financial instability if an IBOR were to be discontinued.

LIBOR is the key interest rate benchmark for several major currencies, including the US dollar and British pound. In July last year, Andrew Bailey, who heads the FCA, raised some serious questions about the sustainability of LIBOR. The key problem he identified is that there are not enough transactions in the short-term interbank funding market to reliably calculate the benchmark. The banks that make the submissions used to calculate LIBOR are uncomfortable about continuing to do this, as they have to rely mainly on their 'expert judgment' in determining where LIBOR should be rather than on actual transactions. To prevent LIBOR from abruptly ceasing to exist, the FCA has received assurances from the current banks on the LIBOR panel that they will continue to submit their estimates to sustain LIBOR until the end of 2021. But beyond that point, there is no guarantee that LIBOR will continue to exist. The FCA will not compel banks to provide submissions and the panel banks may not voluntarily continue to do so.

Let me be clear, LIBOR is not under threat because of the regulators. Rather it has been kept going to date because of the actions of regulators, but that is not going to occur beyond 2021. Then it comes down to whether the submitting banks are willing to maintain LIBOR in its current form, and there is no guarantee at all that will be the case.

Andrew Bailey has made this announcement to give market participants enough time to transition away from LIBOR. The process is not straightforward. LIBOR is referenced in around US\$350 trillion worth of contracts globally. A large share of these contracts have short durations, often three months or less, so these will roll off well ahead of 2021, but they should not continue to be replaced with another short-dated contract referencing LIBOR. A very sizeable number of current contracts would extend beyond 2021, with some lasting as long as 100 years. Market participants that use LIBOR need to work on transitioning their contracts to alternative reference rates. The transition will involve a substantial amount of work for users of LIBOR, both to amend contracts and update systems.

Given how hard it has been to sustain LIBOR, regulators around the world have been working closely with the industry to identify alternative risk-free rates that can be used instead of LIBOR. These alternative rates are based on overnight funding markets since there are plenty of transactions in these markets to calculate robust benchmarks. Last month, the Federal Reserve Bank of New York began publishing the Secured Overnight Financing Rate (SOFR) as the recommended alternative to US dollar LIBOR. For the British pound, SONIA has been identified as the alternative risk-free rate, and the Bank of England has recently put in place reforms to ensure that it remains a robust benchmark.

One issue is that the chosen risk-free rates are overnight rates, while the LIBOR benchmarks are term rates. Some market participants would prefer for the LIBOR replacements to also be term rates. While the development of term risk-free rates is on the long-term agenda for some currencies, they

are unlikely to be available anytime soon. This reflects that there are currently not enough transactions in markets for term risk-free rates – such as overnight indexed swaps (OIS) – to support robust benchmarks. Given this reality, it is very important that users of LIBOR are planning their transition to the overnight risk-free benchmarks that are available, such as SOFR for the US dollar and SONIA for the British pound.

For the risk-free rates to provide an alternative to LIBOR, the next challenge is to generate sufficient liquidity in derivative products that reference the risk-free rates. This will take some time, particularly for the US dollar, where SOFR only recently started being published. Nevertheless, progress is being made, with the first futures contracts referencing SOFR recently being launched.

Market participants also need to be prepared for a scenario where the LIBOR benchmarks abruptly cease to be published. In such an event, users would have to rely on the fall-back provisions in their contracts. However, for many products the existing fall-back provisions would be cumbersome to apply and could generate significant market disruption. For instance, some existing fall-backs involve calling reference banks and asking them to quote a rate. To address this risk, the FSB has encouraged ISDA to work with market participants to develop a more suitable fall-back methodology, using the risk-free rates that have been identified. But LIBOR is very different from an overnight risk-free rate as it includes bank credit risk and is a term rate. So the key challenge is to agree on a standard methodology for calculating credit and term spreads that can be added to the risk-free rate to construct a fall-back for LIBOR. This needs to be resolved as soon as possible, and we encourage users of LIBOR to engage with ISDA on this important work.

## Interest Rate Benchmarks for the Australian Dollar

The key IBOR benchmark for the Australian dollar is BBSW. The RBA and the Australian Securities and Investments Commission (ASIC) have been working closely with industry to ensure that it remains robust.

The critical difference between BBSW and LIBOR is that there *are* enough transactions in the local bank bill market each day to calculate a robust benchmark. <sup>[2]</sup> Australia has an active bank bill market, where the major banks issue bills as a regular source of funding, and a wide range of wholesale investors purchase bills as a liquid cash management product.

For several years, BBSW has been calculated from the best executable bids and offers for the bills issued by the major banks. This method is referred to as National Best Bid and Offer (NBBO). Until recently, a significant concern had been the low trading volumes in the interbank market at the time of day that BBSW was being measured (around 10.00 am). While there are enough transactions over the course of the day, there were nowhere near enough occurring in the (small) rate set window. We consulted with market participants on why there was a lack of trading during the rate set, and they gave us a couple of reasons:

1. They faced a potential conflict of interest when they participated in the market underpinning the benchmark and the derivatives market that references it. They stated that they were uncertain about how regulators expected them to manage these conflicts.

2. Managers of investment funds were reluctant to trade at outright yields. They preferred to transact at the yet-to-be-determined BBSW since this minimised tracking error against their performance benchmarks.

To address these challenges, two key steps are being taken to support BBSW. First, the BBSW methodology is being strengthened to enable the benchmark to be calculated directly from the wider set of market transactions that occur each day. Second, a new regulatory framework for financial benchmarks is being introduced.

The work on implementing the new BBSW methodology is progressing well. The new methodology will involve calculating BBSW as the volume-weighted average price (VWAP) of bank bill transactions.

The new methodology has broadened the BBSW rate set to include transactions outside the interbank market during a longer trading window. This reflects that bank holdings of bills have declined over recent years to around a tenth of total issuance. Holdings by investment funds have increased to over half of total issuance. Previously, these investors had purchased bills outside the rate set, agreeing to the transaction at the yet-to-be-determined BBSW rate. Since late last year, banks and investors have been expected to trade bills at outright yields during the rate set window. This change in market practice has been successfully implemented, enabling these transactions to be used to calculate BBSW. The new arrangements are also improving the infrastructure in the bank bill market, encouraging more electronic trading and straight-through processing of transactions.

The Australian Securities Exchange (ASX) (the administrator of BBSW) has been conducting a parallel run of the new VWAP methodology over recent weeks and the results are promising. On average, there are around \$1.5 billion in transactions during the rate set each day, with a wide range of institutions participating. On most days, it has been possible to calculate the key 3-month and 6-month rates using the VWAP method. In addition, the difference between the rate calculated using VWAP and the existing NBBO method is very close to zero. Given these results, there should be a seamless transition to the new BBSW methodology, which is due to go live shortly.

The VWAP parallel run has confirmed that the most robust tenors are 3- and 6-month BBSW, which are the tenors most frequently referenced in derivatives. Despite this, there are still many contracts that reference 1-month BBSW. The liquidity of 1-month BBSW is lower than it once was, mainly in response to the introduction of liquidity standards that have reduced the incentive for banks to issue very short-term paper. Given this, users of products referencing 1-month BBSW should consider referencing 3- or 6-month BBSW going forward.

The VWAP method will be at the top of a robust calculation waterfall for BBSW, so the benchmark can continue to be published as conditions change in the bank bill market. If there are not enough transactions on a day, BBSW will instead be calculated using NBBO (which is the current method), and if quotes are unavailable, there are algorithms that can be used to calculate the benchmark for a time.

To rebuild confidence in trading during the rate set window, the ASX worked closely with market participants to develop a new set of trading guidelines for BBSW. These guidelines are an important part of the new BBSW methodology, as they provide guidance on the trading of bank bills during the

rate set window. ASIC and the RBA have made it clear that they expect all bank bill market participants – including the banks that issue the bank bills, as well as the participants that buy them – to adhere to the guidelines and support the new BBSW methodology. This has helped to address the concerns that some market participants had about trading during the rate set.

Turning to the second key step to help ensure that BBSW remains a robust benchmark, the Australian Government has recently introduced a new regulatory framework for financial benchmarks. [3] The legislation empowers ASIC to set the rules for and license administrators of significant benchmarks such as BBSW. ASIC will also have the power to compel submissions to a significant benchmark in the rare circumstances where the benchmark would otherwise cease to be published. Finally, the legislation makes it an offence to manipulate financial benchmarks. This new regulatory framework has helped to address the uncertainty that institutions were facing when participating in the BBSW rate setting process. It should also support the continued use of BBSW in the European Union (EU), where new regulations require benchmarks used in the EU to be subject to a robust regulatory framework.

## Finding the Balance between Credit-based and Risk-free Benchmarks

While we expect that BBSW will remain a robust benchmark, it is important for market participants to ask whether BBSW is the most appropriate benchmark for their financial contracts. This is particularly worth considering in the light of the transition that is taking place away from LIBOR towards risk-free rates.

For some financial products, it can make sense to reference a risk-free rate instead of a credit-based benchmark. For instance, floating rate notes (FRNs) issued by governments, non-financial corporations and securitisation trusts, which are currently priced at a spread to BBSW, could instead tie their coupon payments to the cash rate.

As the RBA's operational target for monetary policy and the reference rate for OIS and other financial contracts, the cash rate is the risk-free interest rate benchmark for the Australian dollar. The RBA measures the cash rate directly from transactions in the interbank overnight cash market, and we have ensured that our methodology is in line with the IOSCO benchmark principles. [4] However, consistent with the challenges faced by users of LIBOR looking to transition to alternative risk-free rates, the cash rate is not a perfect substitute for BBSW, as it is an overnight rate rather than a term rate, and doesn't incorporate a significant bank credit risk premium.

We think that BBSW can continue to exist even if credit-based benchmarks, such as LIBOR, are discontinued in other jurisdictions. For many financial products, it will still make sense to reference a credit-based benchmark that measures banks' short-term wholesale funding costs. This is particularly the case for products issued by banks, such as FRNs and corporate loans. The counterparties to these products would still need derivatives that reference BBSW so that they can hedge their interest rate exposures. In the event that LIBOR was to be discontinued, with contracts transitioning to risk-free rates, there may be some corresponding migration away from BBSW towards the cash rate. This will depend on how international markets for products such as derivatives and syndicated loans end up adapting in a post-LIBOR world.

The infrastructure is already in place for BBSW and the cash rate to coexist as the key interest rate benchmarks for the Australian dollar. The OIS market is linked to the cash rate and has been operating for almost 20 years. It already has good liquidity at the short end, and the infrastructure is there for longer term OIS. A functioning derivatives market for trading the basis between the benchmarks is important for BBSW and the cash rate to smoothly coexist. Such a basis swap market is also in place, allowing market participants to exchange the cash flows under these benchmarks.

## Conclusion

There are three main points I would like to leave you with concerning interest rate benchmarks.

First, the longevity of LIBOR cannot be assumed. You should be considering today what that might mean for any contracts you have that reference LIBOR. Please do not hope that if you wait long enough, all the problems will go away. Users of LIBOR should pay close attention to the work being undertaken by ISDA to establish more robust fall-back provisions on contracts.

Second, in Australia, in contrast to other markets, the changes to enhance the longevity of BBSW are well advanced, and it has been possible to anchor the benchmark to a greater number of transactions.

Third, users should consider whether risk-free benchmarks are more appropriate for financial contracts than credit-based benchmarks.

There is still a place for robust credit-based benchmarks in the financial infrastructure, and we expect that BBSW and the cash rate will be able to coexist as the key benchmarks for the Australian dollar.

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## Endnotes

- [\*] Thanks to Ellis Connolly for his assistance in this and more importantly in the reforms of BBSW.
- [1] I have talked about this issue previously: DeBelle G (2017). '[Interest Rate Benchmarks](#)', Speech at FINSIA Signature Event: The Regulators, Sydney, 8 September; DeBelle G (2016), '[Interest Rate Benchmarks](#)', Speech at KangaNews Debt Capital Markets Summit 2016, Sydney 22 February; DeBelle G (2015). '[Benchmarks](#)', Speech at Bloomberg Summit, Sydney, 18 November.
- [2] The instruments traded in the bank bill market are typically negotiable certificates of deposit (NCDs).
- [3] See <[https://www.aph.gov.au/Parliamentary\\_Business/Bills\\_Legislation/Bills\\_Search\\_Results/Result?bId=r5962](https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r5962)>.
- [4] For more details about the methodology for the cash rate, see <<https://www.rba.gov.au/mkt-operations/resources/cash-rate-methodology/>>. The RBA has also conducted a self-assessment against the IOSCO benchmark principles: <<https://www.rba.gov.au/mkt-operations/resources/cash-rate-methodology/compliance.html>>.