South African Reserve Bank

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Transitioning to new interest rate benchmarks: Why is this important for financial policy?

Good afternoon, ladies and gentlemen.

I would like to thank Risk South Africa for inviting me to speak at this conference. After a long day of speeches and presentations, I hope I manage to keep you engaged over the next few minutes, well aware of the fact that I stand between you and a cocktail function.

I have been asked to make some remarks about the reform of the London Interbank Offered Rate (Libor), specifically what the future of Libor entails and what the reform of interest rate benchmarks in general means for market participants. Given the recent work done by the South African Reserve Bank (SARB) on this topic, I thought I would use this opportunity to also talk about how we are thinking about the reform and the overall design of interest rate benchmarks in South Africa.

Background to the reform of Libor

There is extensive literature on the reform of interest rate benchmarks globally, and the SARB published a consultation paper on selected interest rate benchmarks in South Africa on 30 August 2018.

The literature goes a long way in explaining what various international organisations[1] have done, and are still doing, to encourage the reform of interest rate benchmarks and to inform global markets about the benchmark reform objectives and about progress in this regard in the Official Sector Steering Group (OSSG) countries as well as the non-OSSG jurisdictions.

By and large, the global drive to reform interest rate benchmarks is a coordinated response by international regulators and central banks to cases of actual and attempted manipulation of global interest rate benchmarks and declining liquidity in key underlying unsecured funding markets. These responses focus on initiatives to improve the resilience and transparency of interest rates benchmarks used as reference rates. Given the lack of confidence in, and the declining credibility of, the major interest rate benchmarks after the Libor incidents became public in 2012, these initiatives culminated in recommendations on how to strengthen the key interbank offered rates (collectively referred to as ‘Ibors’) and use risk-free rates (RFRs) for derivative markets. This was also informed by the systemic nature of the risk that major interest rate benchmarks posed to the global financial system,

A key component underpinning all the reference rate reforms is the International Organization of Securities Commissions (IOSCO) principle of a waterfall approach to rate determination, which the OSSG has endorsed. According to this principle, benchmarks should be based on, in order of preference, actual transactions, live tradable prices, and expert judgement. Another key recommendation, this time proposed by the OSSG, is that derivative contracts should reference a RFR rather than the current practice of referencing an Ibor, which contains bank credit risk.

Keeping these two key recommendations in mind, let me now provide a brief recap on the progress in the reform efforts of Libor.

[1] Such as the Bank for International Settlements (BIS), the International Organization of Securities Commissions (IOSCO), and the Financial Stability Board (initially through the Market Participants Group (MPG) and since July 2014 through the Official Sector Steering Group (OSSG))

Alternatives for Libor

Libor, being the most widely referenced Ibor, has been the centre of attention. The scale of its use is estimated to be in the hundreds of trillions of US dollars. Yet, the volume of transactions that underpin Libor is nowhere near the gross notional value of financial products referencing the rate. In fact, the Alternative Reference Rate Committee (ARRC) in the United States (US) has published a report showing that, while exposure to Libor has grown, the volume of transactions underlying Libor has been declining.[2]

The scarcity of underlying transactions has been viewed as rather problematic, as it has already resulted in increased conduct risk, despite efforts to strengthen governance processes around benchmark determination. Furthermore, as the ratio of underlying transactions to the gross notional value of financial contracts referencing Libor continues to dwindle, the risk that Libor will not be sustained over the long term increases. From a policymaker's perspective, this mismatch poses risks to the stability of the global financial system, especially given the systemic importance of Libor.

Cognisant of these risks, Libor currency areas have moved to identify alternative reference rates to replace Libor amid growing consensus that, at some point, Libor will cease to exist – not least because the Financial Conduct Authority has already made it known that it will not persuade or compel banks to submit Libor beyond 2021. And somebody has jokingly changes the lyrics of the famous song "Killing me softly with his song" to 'killing it softly with Bailey's song'.

Finding and agreeing on new reference rates has proved to be a long and difficult road. In the US, the ARRC, which is sponsored by the Federal Reserve Bank of New York (New York Fed), has identified the Secured Overnight Financing Rate (SOFR) as its preferred alternative for US dollar Libor. SOFR, which the New York Fed began publishing earlier this year, is a secured overnight rate based on a much larger universe of repo transactions than in any other segment of the US money market.

[2] See https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2018/ARRC-Second-report.

In the United Kingdom (UK), the Working Group on Sterling Risk-Free Reference Rates, operating under the auspices of the Bank of England (BoE), has identified a reformed version of the Sterling Overnight Index Average (SONIA) as the UK's preferred alternative for the sterling Libor. Like SOFR, SONIA is based on a larger transaction universe, which includes bilaterally negotiated as well as brokered unsecured deposits.

What is next? And what are the implications for local market participants?

Instead of discussing these relatively well-known developments at length, allow me to rather spend more time talking about the future and give my views on what market participants should be doing to prepare for it.

But before I do this, I must state the obvious. In the words of Albert Einstein: "The future is an unknown, but a somewhat predictable unknown." Thus, I can only make predictions about the path that regulators and policymakers across the world are likely to follow. These predictions are, however, based on the seeds that regulators have been planting in the recent past (including through all the reforms I have just discussed), highlighting the need for and importance of transitioning to a more robust and reliable interest rate dispensation.

While the transition to alternative interest rate benchmarks is still somewhat uncertain, given how resolute regulators and policymakers are about the need for reform, and considering the steps they have already taken to give effect to that, I can comfortably predict that the future of a new or reformed set of benchmarks will come soon enough. It is worth reflecting on some of the transitioning issues being faced in the reform of Libor.

It is understood that Libor is mostly entrenched in derivative markets. The ARRC has estimated that about 95% of the US dollar Libor market footprint in the US is in derivatives, both over-the-counter and exchange-traded. The OSSG, which has co-opted the services of the International Swaps and Derivatives Association (ISDA) on how to deal with the risks associated with the discontinuation of the major Ibors, is expected to provide some guidance on transitioning.

This transition issue is now officially the third major initiative of the OSSG, which is aimed at improving contract robustness to address the risks of Libor being discontinued among the list of widely referenced interest rate benchmarks. Already in July 2018, ISDA launched a market-wide consultation on certain aspects of fall-backs for the derivatives referencing these major Ibors. The subject of the consultation was options for adjustments that would become applicable in the event of an Ibor being permanently discontinued.[3]

For those market participants that have large exposures to Libor, there is a considerable amount of work to be done – even more so in instances where existing Libor exposures have maturities beyond 2021. The very first area of contention is the potential risk of value transfer from one party to another given the differences between the currently referenced Ibors and their respective alternatives. If alternative reference rates differ markedly from Libor or other reference rates which they seek to replace, a mere adjustment for that spread is unlikely to be sufficient, particularly because, from a behavioural point of view, secured and unsecured interest rates do not necessarily exhibit similar trends in times of market stress.

The year 2021 – the date towards which market participants seem to be converging in marking the end of Libor – may seem like a distant future, but the amount of preparatory work to be done leading up to that time will make it seem sooner than it seems at the moment. It is therefore important to start preparing now. For new contracts that are being written with maturity dates beyond 2021, careful consideration must be given to how these contracts are designed. To allow for contract robustness, participants must already build in provisions that allow for a relatively easier adjustment to a fall-back arrangement.

All this pertains to preparing for a somewhat predictable future. But there is also a need to prepare for the unpredictable future. In this regard, there remain a number of unanswered questions. The first is whether market participants will migrate to a single rate, given all the differences between the existing Ibors and their alternatives. As is well understood, the preferred alternative rates in most jurisdictions are either risk-free or near-risk-free, and most of them are overnight rates.

[3] See https://www.isda.org/2018/07/12/isda-publishes-consultation-on-benchmark-fallbacks/.

Barclays points out in a research report recently published that 'there are key differences between instruments linked to Ibors and overnight risk-free rates in terms of market convention and operation. […] These differences are a major impediment to seamless adoption and in facilitating a smooth transition to risk-free rates'.[4]

Secondly, the transition is not expected to take place at the same time – some jurisdictions will probably move ahead of others.

Thirdly, Intercontinental Exchange Benchmarks Administration (IBA) has also moved to evolve its Libor determination process to make it more compliant with the international standard for financial benchmarks. The IBA's evolution of its Libor determination process could mean that the ICE Libor becomes an alternative reference rate.

All this points to a complicated transition process that will require infrastructure providers and benchmark administrators to change processes and, in some instances, run parallel processes. Risk management practitioners will also have to carefully manage all the risks associated with the transition. Preparations for the upcoming changes should become prominent features of management discussions, leading to the development of strategies on how to manage their respective institutions and customers through this transition. Given that there is also a risk of value transfer, communicating transition plans and strategies, and negotiating with affected parties, will be of utmost importance.

My comments thus far referred to the work that needs to be done by both local and international market participants in respect of Libor, much of which will at some point be applicable to the transition that we envision also taking place in South Africa. Let me now turn to what we are doing and how we are thinking about the design of interest rate benchmarks in South Africa.

[4] Barclays, *'Beyond Ibors: the next generation'*, Barclays Interest Rate Research, 14 September 2018

Interest rate benchmark reform initiatives in South Africa

On 30th August 2018 the SARB published a consultation paper on selected interest rate benchmarks in South Africa, which is currently out for public comment. The consultation paper represents a culmination of various initiatives, both local and international, aimed at strengthening the credibility and robustness of key interest rate benchmarks. In the context of what was happening globally, and as part of the normal governance arrangements in the SARB, various collaborative initiatives between the SARB and other local financial market participants were undertaken in recent years to establish the extent to which South Africa's main overnight and term interest rate benchmarks remain accurate, reliable, and representative of the economic realities of the underlying interest they measure.

In the past two years, these reviews focused on the most widely used three-month Johannesburg Interbank Average Rate (Jibar), which the SARB has estimated is used as a reference for over R40 trillion worth of rand-denominated financial contracts.[5] This, along with the reliance on Jibar as a key input used to determine the Short-Term Fixed Interest (STeFI) Index, has highlighted to us the extent to which Jibar is entrenched in the domestic money market. Given its systemic importance as a key reference interest rate, the SARB has decided there is a need for a fundamental review of Jibar, especially after the reviews conducted between 2015 and 2017 found that:

(i) There is an increasing volume mismatch between the transaction universe upon which Jibar is based and the total book of financial assets and liabilities that reset against the rate.

(ii) Jibar is, in fact, not representative of the cost of funding for banks.

(iii) Insofar as the global standard for financial benchmarks is concerned, Jibar is not based on actual traded prices.

The reviews also focused on the overnight interest rate benchmark: Sabor[6]. With Sabor, we were concerned about the representativeness of the rate as a measure of overnight unsecured funding costs for banks.

[5] This finding is based on the results of a data collection exercise conducted by the SARB and refers to the notional value of outstanding contracts of selected banks as at 31 August 2017.

[6] South African Benchmark Overnight Rate

The SARB's research included consultations across different types of market participants, seeking to gauge their stance on the problems identified as well as on how these shortcomings could be addressed. While market participants recognised and acknowledged the shortcomings with Jibar and Sabor, and the former's inherent vulnerability to manipulation, there was general consensus that the current governance arrangements limited the scope for untoward behaviour. Notwithstanding this position, the SARB still felt it was appropriate to reconsider the design of these benchmarks, and thus published a consultation paper with proposals for their redesign. As you may have seen, the consultation paper went further: proposing the adoption of additional benchmarks to enable market participants to have choices of different reference rates that are fit for purpose.

In formulating these proposals, we considered all the findings I just mentioned relating to Jibar and Sabor. Furthermore – in line with our endorsement of the coordinated efforts by global regulators and central banks to ensure that interest rates are credible, accurate, and trusted by consumers and financial market participants – we also sought to align our proposals to the objectives of the IOSCO principles as well as European Union (EU) benchmark regulations.

I will first deal with the reform proposals contained in the consultation paper, then the thinking around the multiple-rate approach, before concluding with remarks on why this is important for financial policy.

Reform proposals

The reform proposals for Jibar and Sabor seek to anchor both benchmarks to a broader universe of transactions while also adapting the respective calculation methodologies to make them more robust.
With respect to Sabor, it is recommended that:

- Sabor be reformed to a Sabor Money Market, which will reflect a broader range of overnight unsecured wholesale rand deposits with all domestic banks.

The proposed Sabor Money Market would include interbank deposit funding raised at the prevailing repo rate, but exclude all rand funding raised in the foreign exchange swap market.

Within the universe of overnight deposits, it is proposed that all corporate call deposits of R20 million and larger be included in the benchmark calculation instead of just focusing on the top 20 corporate deposits. It is also proposed that the transactions of all banks be included rather than just the five largest banks, as is currently the practice.

With respect to Jibar, it is recommended that:

- the current Jibar calculation methodology be phased out and replaced with a transaction-based rate, comprising a combination of negotiable certificates of deposit (NCDs) and non-bank financial corporate deposits; and
- the current Jibar calculation methodology be changed such that the reformed Jibar is measured as a volume-weighted average rate of all the eligible transactions, to make the rate less sensitive to erroneous or potentially manipulative trades.

While we acknowledge the differences between NCDs and deposits, both from a regulatory treatment point of view and, consequently, from a pricing point of view, the 'hybrid' approach to derive Jibar is recommended as a viable improvement for the current Jibar. At a fundamental level, it is unsustainable that at least R40 trillion worth of financial contracts are priced off a three-month reference rate derived from daily indicative prices of a market that, on average, is underpinned by only R66 million worth of transactions.

In addition to such thin volumes, an analysis conducted at the SARB has found that, between July 2015 and June 2017, no actual eligible NCD transactions took place on almost 90% of the days. The lack in frequency of actual transactions makes the current methodology severely problematic – and makes its reform imperative.

The multiple-rate approach

The SARB's reform agenda also sought to promote the multiple-rate approach, in which multiple secured and unsecured interest rate benchmarks are developed and coexist to enable market participants to have choices that are fit for purpose. Where such multiple rates exists and are deemed credible, it is envisioned that this will encourage market participants to move away from the current practice where derivative contracts reference risk-inclusive benchmarks (i.e. Jibar in South Africa) to one where they reference an RFR. We regard a credit-based interest rate benchmark as appropriate for typical credit products, as it provides a hedge against any adverse changes in the credit risk embedded in the underlying instrument. However, for other purposes, especially derivative contracts, an alternative reference rate that is closer to being risk-free may be more appropriate.

In the consultation paper, the SARB has also set out a road map for a transition from the current reference interest rate dispensation to an environment that comprises multiple rates. To give effect to this arrangement, the SARB has proposed the following:

- A term deposit benchmark, comprising all deposit categories, should be introduced. Market participants would have a choice between this benchmark and the reformed Jibar for use as a reference rate for credit products.
- For derivative contracts, there are various options. For the overnight tenor, there would be an option to use a government bond (GB) repo rate as a reference or, alternatively, a secured financing rate derived from the GB repo market as well as supplementary repos conducted with the central bank. Another alternative would be to use a composite interbank overnight deposit rate, to be referred to as the South African Interbank Offered Rate (ZARibor), which could be considered for designation as a near-risk-free rate subject to predefined credit and liquidity risk characteristics.

The development of, and transition to, credible interest rate benchmarks may take some time, mainly due to the structural impediments and liquidity conditions in the markets where we intend to derive these benchmarks. The SARB has established a joint private- and public-sector body, the Market Practitioners Group (MPG), to manage this process. The MPG will also facilitate decisions on the choice of the interest rate benchmark to be used as references, and will advise on issues of transition and the operationalisation of final proposals. As you can imagine, and considering my earlier remarks, dealing with transitioning issues is going to be a mammoth task and, as is the case with our international peers, an unknown future that I cannot predict with absolute certainty.

The relevance of interest rate benchmarks for monetary policy and financial stability

Why is all this important for policymakers?

The essence of it is this: insofar as it serves as a reference for a large number of contracts, any short-term benchmark rate plays a key role in the transmission of monetary policy decisions to the cost of (and remuneration of) capital in the broader economy. To the extent that short-term rates assist with the timely and accurate measurement of financial risk, they also play a crucial role in maintaining financial stability. Both of these speak directly to the mandate of the SARB, which is to achieve and maintain price stability in the interest of balanced and sustainable economic growth in South Africa while, together with other institutions, playing a pivotal role in ensuring financial stability.

To a large degree, the extent to which Jibar is entrenched in the domestic money market makes the rate an important aspect of monetary policy transmission. The money market is one of the main conduits through which changes in the policy rate are transmitted to the economy and, ultimately, inflation.

In some instances, the approach to monetary policy implementation has shifted away from a classical cash reserve system to a framework where a target is set for short-term unsecured overnight interest rates. In such cases, effective monetary policy implementation is measured by the central bank’s ability to keep market rates aligned to the operational target. If there is no transparency, measuring the effectiveness of policy becomes rather challenging.

Operating targets thus provide guidance to the implementation of monetary policy on how and when to conduct their open-market operations. In policy frameworks that target the price of money, open-market operations are conducted when overnight rates diverge from the operating target. As long as such open-market instruments are easy to implement and effective, and as long as the central bank’s target is made clear, there should only be limited, short-lived deviations of the overnight rates from the target, as is the case for the US federal funds rate.

Developing multiple rates and improving the existing set of benchmarks also has benefits for financial stability policy decisions. It is our view that, where such benchmarks provide a more accurate reflection of the interest they measure across the term structure, they can enhance existing frameworks for systemic risk identification and monitoring.

An important aspect of our assessment of financial stability risks at the SARB focuses on monitoring both time-varying risks and cross-sectional risks at any point in time. In both instances, we monitor risk factors that could amplify or propagate the levels of vulnerability in the financial system as a whole, or in individual financial entities. This assessment depends on reliable and efficient measures of credit and market risk, some of which depend on benchmark rates that measure the cost of funding in the financial markets.

For cross-sectional risk, our financial stability analysis also considers, among other things, the network structure of the South African overnight interbank market, by employing measures from network theory as well as the Network Systemic Importance Index (NSII) that assess the systemic importance of individual banks in South Africa. The NSII measures each bank's size, interconnectedness, and substitutability by employing network theory. We believe that the development of interest rate benchmarks such as the ZARibor, which provide a clearer picture of an otherwise opaque overnight interbank market, will assist us further in understanding the interconnections in this segment of the market and the risks embedded therein.

Concluding remarks

In conclusion, I think it is clear that the transition to new interest rate benchmarks is still uncertain, but the process has started to develop transition plans. While the timing of implementation might be uncertain, and while the plans might be fraught with complications, benchmark regulators are unlikely to reverse the decision to reform rates. It is therefore in the interest of all stakeholders to start positioning themselves for a new interest rate benchmark dispensation instead of adopting a wait-and-see approach.

While the transmission of monetary policy is effective in South Africa, as policymakers we also care about *enhancing* the credibility and transparency of money market interest rates because that offers us an opportunity to have greater clarity on the dynamics of the transmission mechanism. In the context of monetary policy frameworks that target short-term unsecured interest rates, the sooner we embed these new interest rate benchmarks, the sooner the effectiveness of those price-based frameworks can be enhanced. Interest rate benchmarks are also relevant for financial stability policy, including through effective risk sharing and transfer when risk can be measured more clearly.

We believe that, with the assistance of the private sector through the MPG, we will be able to create a more robust financial market structure that will not only reduce systemic risk, but also add to transparency and allow for more efficient implementation of monetary policy.

Thank you.