Remarks by Dr Rashad Cassim
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at the Market Practitioners Group Conference,
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1. Introduction

Good morning, all, and welcome to the second Market Practitioners Group (MPG) conference. I joined this industry body just over a year ago, at a time when the MPG had already identified a successor rate to the Johannesburg Interbank Average Rate (Jibar), namely the South African Rand Overnight Index Average (ZARONIA). At the time, the MPG commenced the foundational work to ensure a smooth and effective transition away from the use of Jibar.

Various milestones were reached over the past year, including the development of a mechanism to collect high-quality transaction data to calculate and distribute ZARONIA rates daily; refinement of the transition plan; publication of a white paper on market conventions for ZARONIA-based derivatives; and the inclusion of fallback rates in financial contracts. However, there is a still a great deal of work to do and the eight MPG workstreams are working full steam to take on board the issues that need to be resolved.

The objective of this conference is to bring together all the pieces of work into a coherent strategy, and to give you a clear picture of what the MPG is aiming to achieve and the direction in which we are moving. We hope that at the end of this conference, you have a good grasp of what your organisations will require to successfully adopt ZARONIA and transition away from Jibar.

At the risk of covering ground familiar to many of you today, I will provide some background and context to our reference rate reform initiative and move on to discuss transition challenges.

2. Why bother with reference rate reform?

The reform of key reference rates globally began in earnest after the Financial Stability Board's (FSB) review of major interest rate benchmarks in 2013–2014, which was a response to concerns raised by a wide range of stakeholders regarding the reliability and robustness of certain interbank offered rates (IBORs)[1]. It had become clear that IBORs were susceptible to manipulation as their computation relied on indicative rates supplied by a panel of contributing banks. Furthermore, they had become irrelevant due to declining volumes of unsecured funding market activity. As many of you know, the relevant international standard setting bodies require a benchmark to be representative of the underlying interest rate that it seeks to measure.

To illustrate, some analysts framed the weaknesses in the design of the London Interbank Offered Rate (Libor) as a case of 'measurement error'[2], pointing out that Libor tended to be less representative of actual interbank rates during times of stress as certain contributing banks, being weary of revealing information that might increase their borrowing costs, would submit biased quotes.

Based on these findings, several jurisdictions convened national working groups to review their respective IBORs. There was widespread agreement that IBOR rates should be discontinued and replaced with more robust risk-free or near risk-free rates. Some regulatory authorities went a step further, such as the United Kingdom's (UK) Financial Conduct Authority (FCA), which no longer compelled panel banks to

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[1] FSB (2014), Reforming major interest rate benchmarks.
[2] Baba, Parker and Nagano (2008), The spillover of money market turbulence to FX swap and cross-currency swap markets – *BIS Quarterly*, March 2008

continue their Libor submissions after December 2021, effectively heralding the end of Libor[3].

3. Is it necessary to do away with Jibar?

Considering the global effort to reform key reference rates, the South African Reserve Bank (SARB) evaluated the design of Jibar against the recommendations of the International Organization of Securities Commissions (IOSCO) Principles of Financial Benchmarks. This was necessary because Jibar, in particular three-month Jibar, is a widely used reference rate in financial contracts. The latest Jibar-related exposures survey results estimated that the total value of outstanding contracts that reset against the three-month Jibar rate exceed R30.6 trillion[4]. Jibar is also a key input in the determination of the Short-Term Fixed-Interest (STeFI) Index, which is a non-tradable index used to benchmark the performance of money market portfolios.

Through this evaluation, the SARB found, like many other countries, Jibar exhibits some of the weaknesses that were observed in the design of certain IBORs. The benchmark is based on indicative rates from only five contributing banks, making it vulnerable to manipulation. However, unlike Libor, the indicative rates are quoted on active screens, and hence they are tradable for all transactions whose nominal falls between R20 million and R500 million[5]. While this feature lends more credibility to Jibar, on its own it is unlikely to be effective in minimising the risk of manipulation. Furthermore, the issuance of negotiable certificates of deposits (NCDs), which underpins the calculation of Jibar, has declined considerably over the years, especially for the three-month tenor, compromising the representativeness of the benchmark.

Consequently, the SARB determined that Jibar's design weaknesses will become less defendable in the long term, and therefore it would be prudent to plan for the

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[3] Refer to the FCA announcement on the future cessation and loss of representativeness of the Libor benchmarks – 5 March 2021

[4] The amount relates to exposures as at 31 December 2022.

[5] The Jibar Code of Conduct and Operating Rules (Code) initially stipulated that screen prices must be good for a range of transactions that fell between R20 million to R100 million. The upper limit of the range was subsequently increased to R500 million following a revision of the Code, which was prompted by the recommendations of the MPG's Unsecured Reference Rate Workstream aimed at enhancing the credibility of Jibar.

discontinuation of the benchmark and for financial markets to transition away from it. In the interim, the SARB implemented the MPG's proposed measures to strengthen Jibar by enhancing the transparency of market activity that underpins the benchmark and by introducing various provisions in the Jibar Code of Conduct and Operating Rules (Code). The SARB appointed Strate (Pty) Limited to be the publishing agent for all Jibar-related post-trade disclosures[6]. The revisions to the Code have been completed and adopted and continue to undergo regular reviews.

4. The alternative near risk-free rate, ZARONIA

It may be comforting to know that ZARONIA has been in the making for about five years. The name of the benchmark was initially coined in the feedback to a 2018 consultation paper in which market participants suggested that the South African Benchmark Overnight Rate (Sabor) Money Market, a proposed reformed version of Sabor, be named ZONIA, supposedly given its likeness to the Sterling Overnight Index Average (SONIA), the UK's near risk-free rate. Nonetheless, we settled on ZARonia, where the emphasis was placed on ZAR (i.e. the South African rand)[7].

The MPG selected ZARONIA following an in-depth assessment of several alternatives[8], most of which were deemed insufficient against the criteria of reliability, robustness, frequency, availability and representativeness.[9] Prior to making its final decision, the MPG assessed the suitability of ZARONIA as an alternative near risk-free rate based on three requirements, which I will now discuss.

The first requirement is rather deceivingly simple. It demands that a selected near risk-free rate should be very close to being risk-free – meaning that the transactions underlying the ZARONIA rates should, to a large extent, not reflect the credit risk of

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[6] https://www.resbank.co.za/en/home/what-we-do/statistics/johannesburg-interbank-average-rate#:~:text=The%20post%2Dtrade%20disclosures%20consist,of%20the%20transactions%20traded%20daily.

[7] Refer to the summary of market participants' comments on the Consultation Paper (2018) contained in the Report on the stakeholder feedback on the reform of interest rate benchmarks in South Africa (recommendation 4).

[8] The position paper of the Risk-Free Reference Rates Workstream (2020) summarises the considerations and conclusions made on the foreign exchange-(FX) implied overnight (O/N) rate Sabor, Sabor MM (the reformed version of Sabor), SAFEX O/N rate, ZARIBOR and SASFR (referred to as ZASFR in the draft statement of methodology and policies governing the SARB-administered benchmarks)

[9] BIS (2013) – Towards better reference rate practices: a central bank perspective

the counterparties to the transaction. ZARONIA is a *near* risk-free rate, as it is the commercial banks' cost of borrowing overnight, where credit, liquidity and other risks are minimal.

A more appropriate way to assess whether the risk premium is minimal would require a comparison of ZARONIA with a secured overnight rate or an extrapolated curve of risk-free instruments. However, the most available secured overnight rate, the overnight repurchase (repo) rate, is fraught with difficulties due to thin trading activity and a high concentration of market players that cause the rate to be wider than expected. It is also difficult to extrapolate a reliable credit curve from the spread between Jibar and Treasury bills, as the latter tend to be relatively illiquid due to their use as high-quality liquid assets (HQLA).

Nonetheless, a crude measure for the risk premium would be to look at the spread between ZARONIA and the SARB's policy repo rate. It would be reasonable to expect that ZARONIA, as an unsecured rate, would be above the repo rate (secured rate) but remain very close to it. On average, the ZARONIA repo rate spread is about -15.5 basis points[10], meaning that not only is ZARONIA close to the policy repo rate, but it is usually priced below the secured policy rate.

The second requirement relates to the depth of the market underlying ZARONIA. The IOSCO Principles of Financial Benchmarks recommend that a benchmark rate should be anchored in actual transactions that reflect the activity of a deep and liquid market, including in periods of adverse market conditions. This would make the benchmark more robust to manipulation.[11] ZARONIA is supported by a significant amount of unsecured overnight transactions, which average circa R350.4 billion daily.

The last requirement is whether ZARONIA is 'fit for purpose'. Two distinguished American academics, Darrell Duffie and Jeremy Stein (2015) highlight that reliable benchmarks should reduce search costs in over-the-counter markets and ensure that

[10] The average is based on published ZARONIA rates for the period between 1 November 2022 and 11 April 2023.

[11] FSB (2021), Interest rate benchmark reform

information asymmetry is largely eliminated.[12] Remarkably, this postulation has held true for ZARONIA. Based on the back-testing exercise results, market participants had cautioned that ZARONIA may not be suitable for derivatives as the calculated rates exhibited high volatility, which would limit the predictability of the benchmark and impede its adoption. The SARB argued that the volatility was largely due to the opaqueness of the market for deposits. And hence it was expected that the volatility would decline considerably once the SARB started publishing the rate and market participants began referring to it in their pricing considerations. Certainly, the volatility of ZARONIA has been low since the SARB started publishing the rate on 2 November 2022.

5. On the Jibar transition

The transition from Jibar to ZARONIA will require market participants to deal with the inherent differences in the make-up of each rate explicitly. Naturally, as an unsecured forward-looking term rate, Jibar contains a premium to compensate lenders for the risks they assume over an alternative overnight risk-free rate. The risk premium could be decomposed into elements pertaining to the borrowing banks' characteristics, such as credit risk and funding risk, and elements that reflect market-wide conditions, including the term premium, market liquidity and factors related to the fixing process and the microstructure of the market.[13] Finding the appropriate measure of this risk premium that could be added to ZARONIA will be important for financial contracts that will require a Jibar equivalent after it has been discontinued.

Globally, many jurisdictions have adopted the International Swaps and Derivatives Association's (ISDA) methodology for determining the risk premiums, commonly referred to as 'adjustment spreads', that should be added to the risk-free replacement rates for the IBORs. These adjustment spreads are calculated as the median over a five-year period of the historical differences between the IBOR in the relevant tenor and the relevant risk-free rate compounded over each corresponding period.[14]

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[12] Duffie and Stein (2015), Reforming Libor and other financial market benchmarks

[13] BIS (2008), What drives interbank rates? Evidence from the Libor panel

[14] Bloomberg Index Service Limited (BISL) calculates and distributes the official fallback rates, including the compounded RFR and adjustment spreads, for several currency IBORs in accordance with the ISDA methodology. BISL (2023) published the methodology in the IBOR Fallback Rate Adjustment Rule Book.

We have not yet finalised the issue of adjustment spreads in our jurisdiction. The MPG will examine whether ISDA's approach is appropriate for the domestic cash and derivatives markets and consider whether the methodology needs to be adjusted to account for the recent change in the SARB's monetary policy implementation framework (MPIF). This should only matter to the extent that the change in the new MPIF had a significant effect on the residual risk factors contained in the risk premium. Nonetheless, the MPG will make a determination on this in due course, as the adjusted ZARONIA rate will only be used as a replacement or fallback rate after the cessation of Jibar. Market participants should in the meantime aim to actively transition out of Jibar referencing contracts to minimise the stock of legacy contracts that will need to rely on the adjusted ZARONIA as a fallback rate.

Market participants have become accustomed to using forward-looking term rates, where the interest rate is known in advance.[15] While forward-looking term rates are helpful in ascertaining future cash flows and, in so doing, assist firms and investment funds to plan better, they also expose the investor to unanticipated changes to the short-term rates. As such, investors tend to require a term premium to account for this interest rate risk, which often results in volatility in times of greater uncertainty regarding the path of monetary policy. An overnight rate is advantageous in this regard as it should not contain much of this risk. Instead, it should change as the central bank changes its policy rate. Market participants who still require a term rate should consider using an average rate based on ZARONIA compounded in arrears. This requires a shift in the market's convention from determining interest at the beginning of the accrual period to determining it at the end of the accrual period.

As many of you know, we have set up various workstreams in gearing up for the transition. It is not possible here to do justice, to reflect on the rich work of all the workstreams, but I will give you a flavour of what is being discussed at least in one or two them.

15 This has been enforced by some regulations, such as section 8(4) of Board Notice 90, which is currently under review, which prevents money market portfolios from investing in securities whereby the interest amount is not known at the commencement of the contract.

The Derivatives Workstream has proposed market conventions for interest rate swaps, whose floating leg will use compounded ZARONIA period average rates that will be determined in accordance with the ISDA methodology. While the use of compounded risk-free rates is fairly common in global markets, it does present a significant change in our market. Firstly, the nature of ZARONIA as an overnight rate will enable the introduction of Overnight Index Swaps (OIS). In this regard, the Derivatives Workstream has proposed market conventions that largely align with international best practice. Secondly, as ZARONIA will track the evolution of actual interest rates, the need for hedging risk using Forward Rate Agreements (FRAs) will largely diminish.

As a matter of interest, the decline of FRA trading was remarkable in the Libor transition, where the daily turnover of FRAs decreased from USD1.9 trillion in 2019 to USD0.5 trillion in 2022, a 19% decline in total over-the-counter (OTC) derivatives turnover. Much of the residual reflects exposure to USD-denominated turnover and other currencies that have not fully transitioned to risk-free rates. FRAs that are denominated in sterling, the Japanese yen and Swiss franc have virtually ceased trading, with their turnover having declined by more than 90%.[16] Therefore, it is likely that we will see the domestic FRA market decline, and those that wish to speculate on future short rate movements will likely have to use forward-starting OISs as a replacement for FRAs.[17]

Given the progress made by the Derivatives Workstream we expect that the market should be able to start trading ZARONIA-based derivatives products soon after the end of the ZARONIA observation period. Nonetheless, we do not discount the amount of work that needs to finalised between now and then to enable this.

The Cash Market Workstream has begun the work to determine how the loan and bond markets could adopt ZARONIA. The mandate for the workstream is twofold: (i) determine the segments of the market that will 'need' a forward-looking term rate; and (ii) propose market conventions for the loan and bond markets.

[16] Huang and Todorov (2022), The post-Libor world: a global view from the BIS derivatives statistics – *BIS Review*, December 2022

[17] MPG (2023), Market conventions for ZARONIA-based derivatives

6. Do we really need a forward-looking term rate?

Given the work done for the Libor transition, it was determined that risk-free rates compounded in arrears were appropriate and operationally achievable for most cash market segments. In the UK, overnight SONIA compounded in arrears was quickly adopted in floating rate bonds and securitisations. However, loan markets were slower to progress and they estimated that about 10% of the sterling Libor loan market by value would require alternative rates. The 10% largely comprised low-value loans made to a wide range of smaller borrowers, who could benefit from simplicity and payment certainty. The policy rate, and in some instances a forward-looking term rate, would be preferred for them. Otherwise, larger and more sophisticated corporates and specialist lending sectors tended to use SONIA compounded in arrears.

The Working Group on Sterling Risk-Free Reference Rates identified certain barriers to the widespread adoption of the overnight SONIA compounded in arrears, which are instructive for the work programme of the MPG. The barriers included:

- loan IT and treasury management systems that required reconfiguration to make them compatible with overnight rates that are compounded in arrears;
- standardised legal documentation that facilitate syndicated lending and other loans;
- the development of market conventions referencing the overnight risk-free rate; and
- the development of new loan products that reference the policy rate or an alternative forward-looking term rate.[18]

It is essential to note that the work on finding a forward-looking term rate, or, in keeping with the reference rate reform parlance, a ZARONIA term rate, is still at an infant stage. Previous attempts at constructing a new term rate based on deposit transactions, as detailed in the SARB's Consultation Paper (2018) and Technical Specification Paper (2020), failed due to design flaws and data insufficiency. Developing a ZARONIA term rate is dependent on the derivatives market building sufficient liquidity to underpin the

[18] Working Group on Sterling Risk-Free Rates (2020), Use cases of benchmark rates: compounded in arrears, terms rate and further alternatives

term rate. Consequently, we would encourage the market to adopt ZARONIA compounded in arrears as a primary vehicle for the Jibar transition and not wait for a ZARONIA term rate, unless necessary.

7. On the next steps

We are almost halfway through the ZARONIA observation period, which will end on 31 October 2023. Market participants should use the remaining time to assess the implications of using the rate in financial contracts and issues that could potentially hinder their transition away from Jibar. The MPG structures provide a good platform for raising such issues, such as the industry task forces that are managed by the Transition Planning Workstream and the MPG Communications Workstream's regular virtual forums, which provide updates on its work programme.[19]

The SARB would prefer a relatively short Jibar transition period. Therefore, market participants are encouraged to actively transition as soon as possible to avoid what was witnessed during the Libor transition. Despite repeated advice from regulators and national working groups, most market participants did not take any action to reduce their exposure until the 'endgame' for Libor was in sight.[20] To illustrate, in 2018 the Alternative Reference Rates Committee[21] (ARRC) estimated that there were about USD200 trillion financial contracts that referenced USD Libor outstanding and that 80% of those contracts would mature in the same year. Instead of the value of the outstanding contracts decreasing over the ensuing years, the contracts increased to approximately USD223 trillion.[22] The stock of legacy Libor contracts would have been significantly less had market participants taken steps to actively transition from Libor and not wait for the FCA and Intercontinental Exchange (ICE) Benchmark Administration to make more definitive statements about the cessation of all Libor tenors.

[19] The MPG Communications Workstream's action plan for year included indicative dates for the industry forums. The workstream partners with industry associations such as ACTSA, ASISA, and BASA to set an agenda that caters for the needs of their constituents.
[20] Refer to ISDA (2021), The Libor End Game
[21] ARRC is a group of private market participants convened by the Federal Reserve Board and New York Fed to ensure a successful transition from USD LIBOR to the alternative Secured Overnight Financing Rate or SOFR.
[22] Randal K. Quarles (2021), Keynote remarks at the SOFR Symposium: the final year

The exact date for the discontinuation of Jibar will be determined and communicated soon after ZARONIA becomes available for use; however, the SARB's preference is for the transition period to be less than the five years it took for the Libor transition. This is premised on progress achieved thus far and our ability to leverage off the work that has been completed in other jurisdictions. It would be unwise to re-invent the wheel and develop unique solutions that do not conform to international best practice.

It is essential that each firm plans properly and ensures that sub-business units and business functions are ready to action the plan accordingly. The checklist for the implementation of the Jibar transition and ZARONIA adoption[23] should include:

- establishing an enterprise-wide Jibar transition programme across functions and businesses to manage the transition risks associated with Jibar-related exposures;
- quantifying and monitoring Jibar-related exposures throughout the transition;
- developing a product strategy that includes creating ZARONIA-based products;
- developing a plan to address the required changes to technological infrastructure, processes and people skills required for the Jibar transition and the use of ZARONIA-based products;
- determining the financial accounting, taxation and regulation considerations;
- determining the financial, customer and legal implications that will result from the transition and plan for the inclusion of fallbacks in financial contracts;
- developing a communications strategy to proactively engage and educate internal and external stakeholders; and
- establishing a governance framework with senior executives to oversee an enterprise-wide Jibar transition programme.

8. Conclusion

The success of this transition is contingent on our attempt to consult as widely as possible with all market participants and other stakeholders to ensure that all potential risks are addressed. This conference is a reflection of how serious we are about the

[23] The checklist is adapted from the ARRC (2019), Practical Implementation Checklist for SOFR Adoption

responsibility of ensuring that the process of ultimately moving to ZARONIA is as seamless as can be. After all, this transition marks a significant turning point in the history of South Africa’s financial markets, given its impact on a broader set of financial products in various market segments.

Certainly, the MPG has established various workstreams that will provide industry-wide guidance and make recommendations on all the essential aspects of the Jibar transition and ZARONIA adoption, which will be made available on the MPG’s webpage.

I thank you and wish you a productive conference further.

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