2020

Market Practitioners Group Unsecured Reference Rates Work Stream Position Paper – August 2020

Contents

Abbreviations

ASISA	The Association for Savings and Investment South Africa
ACTSA	Association of Corporate Treasurers of South Africa
EURIBOR	Euro Interbank Offered Rate
FMLG	Financial Markets Liaison Group
FSCA	Financial Sector Conduct Authority
FRN	Floating Rate Note
FSB	Financial Stability Board
HQLA	High Quality Liquid Assets
IBOR	Interbank offer rates
IOSCO	International Organization for Securities Commission
JIBAR	Johannesburg Interbank Average Rate
JSE	Johannesburg Stock Exchange (JSE Ltd)
LCR	Liquidity Coverage Ratio
LIBORs	London Interbank Bank Offer Rates
MPG	Market Practitioners Group
NCD	Negotiable Certificates of Deposit
NSFR	Net Stable Funding Ratio
OSSG	Official Sector Steering Group
SABOR	South African Benchmark Overnight Rate
SARB	South African Reserve Bank
SOFR	Secured Overnight Financing Rate
STEFI	Short-Term Fixed-Interest Index
TIBOR	Tokyo Interbank Offered Rate

1. Introduction

The process of reforming interest rate benchmarks in South Africa has been multi-faceted. A *Consultation paper on selected interest rate benchmarks in South Africa*, which contained proposals by the South African Reserve Bank (SARB) on the proposed reform of interest rate benchmarks in South Africa, was published in August 2018. This was followed by the *Report on stakeholder feedback on the reform of interest rate benchmarks in South Africa,* published in May 2019, which captured the outcome of a public consultation process and responses to the SARB proposals contained in the consultation paper. Parallel to the consultation process, the SARB established a Market Practitioners Group (MPG), which is a joint public and private sector body, comprised of representatives of the SARB, the Financial Sector Conduct Authority (FSCA), and other senior professionals representing different market interest groups active in the domestic financial markets. The MPG is chaired by SARB Deputy Governor: Markets and International.

The primary purpose of the MPG is to facilitate decisions on the choice of interest rates to be used as *reference rates* for financial contracts in South Africa, as well as to provide input to the SARB and the FSCA on the operationalisation of the interest rate benchmark proposals as contained in the Consultation Paper. The MPG duly established work streams to execute its mandate. The initial task of these work streams was to recommend to the MPG preferred choices of alternative reference rates, building on the recommendations made by the SARB.

2. Unsecured Reference Rates Work Stream Mandate

The Unsecured Reference Rates Work Stream was constituted by the Market Practitioners Group (MPG) in 2019, as part of several industry work streams established to inform the course of interest rate benchmark reform in South Africa.

The work stream was mandated to make final recommendations to the MPG relating to the choice and design of reformed interest rate benchmarks in South Africa that include bank credit risk (i.e. are risk based); the choice of interest rate benchmark administrators and calculation agents; and to produce a statement of compliance of the proposed interest rate benchmarks to the International Organization of Securities Commissions (IOSCO) principles for financial benchmarks.

The Unsecured Reference Rate Work Stream comprises representatives from the Domestic Banking sector, the Association for Savings and Investment (ASISA), the Association of Corporate Treasurers of South Africa (ACTSA), South African Insurance Sector and the South African Reserve Bank (SARB). The composition of the work stream is intended to ensure that the diversity of industry participants and perspectives is leveraged to inform the future trajectory of risk-based reference rates for South Africa.

3. Problem Statement

Regulators across the globe have expressed concerns relating to the lack of transparency in relation to how the various IBORs (Interbank Offered Rates) are being determined. The risk that many IBORs could be found to no longer represent the underlying market it is meant to measure, due particularly to a lack of underlying primary and secondary market activity, raises questions as to their long term sustainability as benchmark reference rates that underpin vast volumes of financial market contracts. A number of jurisdictions have therefore started to prepare for the cessation of their IBORs in favor of alternative reformed risk free reference rates.

In South Africa similar concerns have been expressed by the South African Reserve Bank (SARB) in relation to the various tenors of the Johannesburg Interbank Average Rates (JIBARs). In particular the 3 month JIBAR reference rate, which serves as the benchmark reference rate of choice for financial market contracts, which lacks meaningful primary market transactional activity.

The Unsecured Reference Rates Work Stream was tasked primarily to solve for credible alternatives to the JIBARs, failing which to establish interim measures to strengthen the JIBARs whilst suitable alternative reformed risk free/near risk free reference rates are developed for the South African financial markets. The work stream was furthermore tasked with recommending additional benchmark rates to enhance the level of transparency in the South African money markets and strengthen market insights into monetary policy transmission dynamics and serve the regulatory interest of maintaining financial market stability should vulnerabilities emerge.

This paper sets out the recommendations of the Unsecured Reference Rates Work Stream for consideration by the MPG. The recommendations pertain to the reform of JIBAR, as well as to the choice and design of alternative unsecured interest rate benchmarks that will form part of the expanded suite of benchmarks that the SARB is developing. The SARB, in addition to the recommendations of the Unsecured Reference Rates Work Stream, has provided its own views on the findings and recommendations of the Unsecured Reference Rates Work Stream.

4. Guiding principles

The IOSCO principles for financial benchmarks has become a global standard for assessing the credibility of benchmark reform efforts across jurisdictions (see outline in Annexure 1). The Unsecured Reference Rates Work Stream used these principles as a key barometer for assessing the appropriateness of recommendations for the South African marketplace.

The money market activity underpinning the JIBARs was also revisited to assess the credibility of the market interest underpinning South Africa's existing rates (see Annexure 2), which is in stark contrast to the lack of underlying market interest in the case of many of the IBORs.

The work stream also considered the emergence of single and multiple rate regimes globally (see Annexure 3), with the latter requiring certain jurisdictions to strengthen the degree of IOSCO compliance on existing IBORs given the lack of suitable risk free/near risk free alternative reference rates and/or sufficient market development thereof to formalize transition timelines.

Lastly, the work stream also recognized the need to consider the implementation of new benchmark rates that improve transparency in the South African Money Markets to promote greater market transparency and to enhance the depth of systemic monitoring tools available to regulators in the interest of maintaining long term financial stability.

5. Key Findings

The work stream members debated various aspects of benchmark reforms ranging from the recommendations contained in the SARB consultation paper published in 2018, the industries feedback relating thereto, global developments, foreign regulations and market infrastructure.

Hybrid-JIBAR, as recommended in the SARB consultation paper, was the only possible market alternative that met the data sufficiency requirement of IOSCO as it captured all money market deposit transactions. However, the following key findings were observed:

Key Finding 1

Hybrid-JIBAR is not a viable alternative to JIBAR for South Africa.

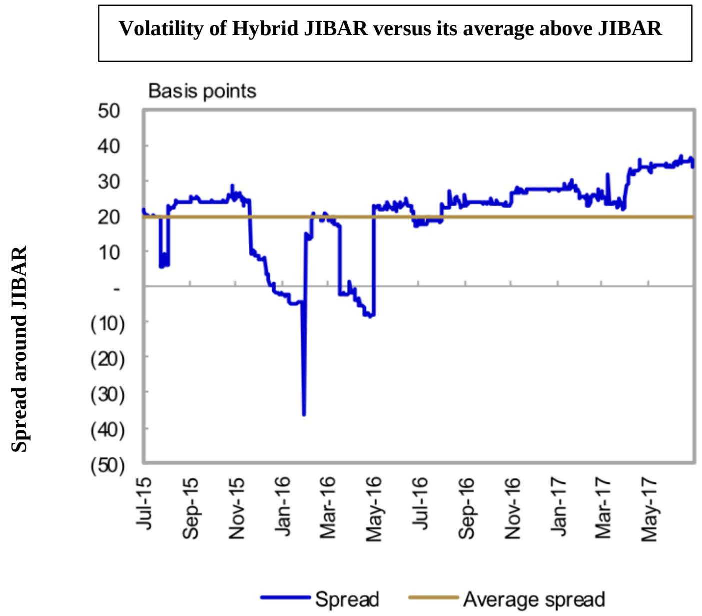
The SARB's 2018 consultation paper recommended the formulation of a new benchmark which consolidates all non-bank financial institution (NBFI) deposit transactions as well as NCDs to formulate a reformed Hybrid JIBAR that is underpinned by increased transactional activity. The work stream found that while this recommendation would introduce greater transaction volumes, there are numerous factors that compromise this approach, which include:

- Commingling liquid tradable money market paper with non-tradable fixed deposits which embed pricing incentives.
- Fixed deposit transactions often reflect relationship pricing aspects that introduces unpredictable volatility in the aggregation of rates.

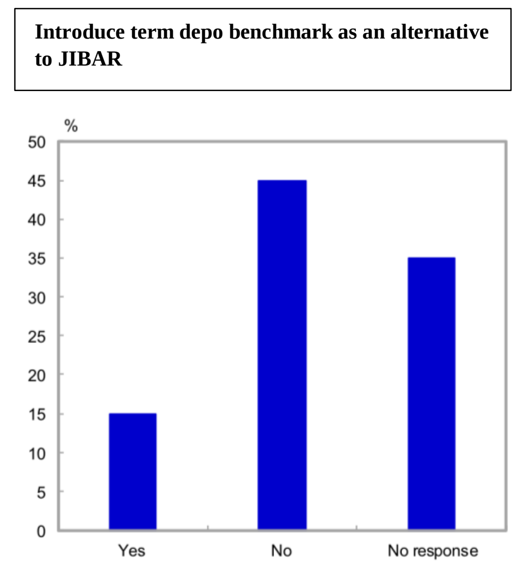
The consequence of these two aspects is a set of new reformed rates that are significantly more volatile and unpredictable (see Graph 1). Therefore, while the

Data Sufficiency requirement of IOSCO could be met, such rates would not be viable reference rates for financial transactions as the Benchmark Design requirement of IOSCO would have been compromised. This finding is consistent with industry feedback as depicted in Graphs 2 and 3.

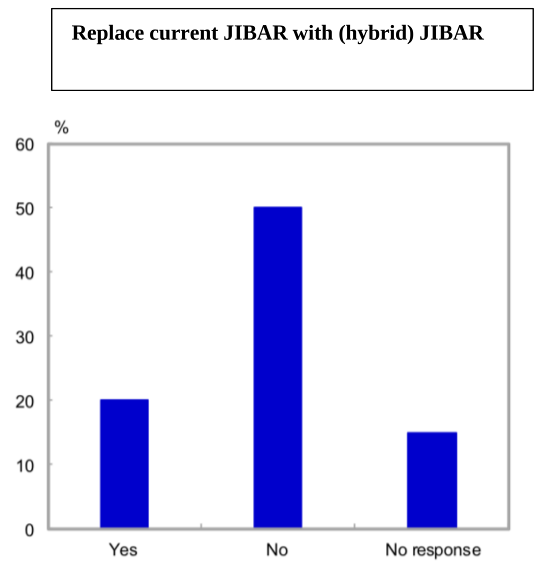
Graph 1 – Volatility in 3M Hybrid-JIBAR



Graph 2



Graph 3



Annexure 6 highlights the banking sector's wholesale liability make up, which evidences the lack of other wholesale deposit sources beyond NCDs and fixed deposits available for consideration as alternative risk-based reference rates.

Annexure 7 shows the level of IOSCO compliance between the existing JIBARs, Hybrid-JIBAR and a strengthened version of JIBARs as recommended in this position paper. The strengthened JIBAR presents the greatest degree of compliance with the principles.

The SARB view on hybrid JIBAR

The SARB initially recommended hybrid JIBAR as the most viable alternative among those considered at the time of publishing the Consultation Paper in 2018. However, concerns raised during the consultation process, which are similar to the ones being raised by the Unsecured Reference Rates Work Stream, were acknowledged and further interrogated. The SARB accordingly encouraged market participants to consider other alternatives.

The SARB has subsequently recommended that South Africa transitions to a near-risk free rate as a key overnight reference rate. This means that JIBAR will, in future, not be used as a key reference rate for financial contracts in South Africa and the market will require a transition. To avoid a multi-step transition, the SARB has recommended, as an initial step, that the current JIBAR framework, including its governance, be strengthened in order to secure the transition period, while the MPG and its work streams continue their work on operationalising an alternative reference rate. Transition to the alternative reference rate will only take place when the rate is fully functional.

Any measures taken to strengthen the JIBAR framework during the interim phase would need to ensure that the rate is credible and resilient, until full transition takes place. This requirement is in line with the SARB's response to consultation feedback on JIBAR that a solution to the current shortcomings of JIBAR needs to comply with the principles for financial benchmarks developed by the International Organization of Securities Commissions (IOSCO).

Key Finding 2

JIBAR does not face any current regulatory equivalence restrictions that would preclude international participation in JIBAR linked financial contracts.

As developed market central banks establish Benchmark Regulations, such as the European Benchmark Regulations (BMR), they introduce risks to foreign jurisdictions such as South Africa whose benchmark reference rates may not comply with their domestic regulations. In such an event this would prohibit international market participation in JIBAR linked financial transactions.

The Financial Sector Conduct Authority (FSCA) was requested to consider the European BMR (the only formal developed market regulations[1]) and report back on implications for South Africa.

The FSCA provided the following conclusion:

"Paragraph (a) of Article 2(2) of the European Benchmarks Regulation (BMR) states that the BMR does not apply to "a central bank". According to the European Securities and Markets Authority (ESMA) the term "a central bank" encompasses both EU central banks (i.e. members of the European System of Central Banks) and non-EU central banks, and therefore the BMR does not apply to EU as well as third country central banks. Benchmarks provided by EU and third country central banks are thus not to be included in the register referred in Article 36 of the BMR but according to ESMA supervised entities in the Union are nevertheless allowed to use such benchmarks."

"The European Commission confirmed in communication with the Financial Sector Conduct Authority that if the SARB continues to assume final responsibility for the determination and publication of SABOR and JIBAR in future, it would be sufficient to benefit from the central bank exemption under the EU BMR. Therefore, under these conditions, both JIBAR and SABOR would remain available to EU benchmark users after the (recently postponed) 1 January 2022 entry into application of the third country requirements under the EU BMR. It was however emphasized that the central bank carve-out is conditional on the central bank actually having the end responsibility for the administration of the benchmark."

Based on the JIBAR Code of Conduct, the SARB remains responsible for the oversight of JIBAR. In this regard, South Africa does not face the risk of non-participation by international market players in JIBAR linked transactions; thus affording South Africa time and flexibility in shaping its reformed benchmark landscape.

Additional measures to strengthen JIBARs should remain a priority as well as the accelerated development of alternative risk free/near risk free reference rates to ensure South African financial market sustainability in the face of evolving global benchmark regulations. This is imperative as the global compliance position could change as more jurisdictions introduce their own unique benchmark regulations.

The SARB view on regulatory equivalence

The SARB concurs that, to the extent that the SARB remains the administrator of JIBAR and SABOR, these benchmarks do not face regulatory equivalence restrictions. The exception granted under paragraph (a) of Article 2(2) of the European Benchmark Regulation does, however, place a responsibility on the central bank to ensure the credibility and reliability of the benchmarks it administers. As such, the SARB has a

[1] **EU BMR Regulation and FAQs Supporting Regulation**

responsibility to ensure that both JIBAR and SABOR align to the greatest extent possible to the spirit of the overarching framework that guides the administration of financial benchmarks.

Efforts are being made to strengthen the JIBAR framework as planned, while progress is made to transition to alternative reference rates within a reasonable timeframe.

Key Finding 3

Foreign jurisdictions that have progressed their benchmark reform dialogue have given rise broadly to either a single or multiple rate regime.

The work stream recognized that a handful of markets that have adopted single rate regimes have typically established alternative overnight risk free reference rates that will be transitioned to within a defined timeframe. These markets have already started to develop credible balance sheet and derivative market activities referencing the alternative risk free reference rates, thus creating the necessary conditions for a viable transition.

Multiple rate regimes on the other hand have strengthened their existing risk based reference rates and established alternative risk free/near risk free reference rates with no firm timeline commitments to transition. In many of these jurisdictions there is a high degree of concern around the viability of transition given the need for further market development in financial activities referencing the new alternative rates.

The work stream acknowledged that the South African market needs to prioritize the development of alternative risk free/near risk free rates and develop derivative markets referencing such rates to make an informed decision around benchmark transition. In the interim South Africa should adopt a multiple rate regime, as a single rate regime could take a number of years to fully develop.

The SARB view on single and multiple rate regimes

The SARB has noted global convergence towards the use of overnight rates as reference rates for derivative markets. These overnight rates are transaction-based, underpinned by deep and liquid overnight funding markets. The SARB has also noted evidence of transition inertia by some segments of the financial markets such as loan and cash markets, which have expressed strong preference to deal with rates set in advance (i.e. term rates).

Locally, discussions at the MPG and at the Risk-Free Reference Rates Work Stream have also been biased towards the adoption of, and transition to, an overnight risk-free or near-risk-free rate. Such a rate is considered an appropriate reference for derivatives transactions, as market participants are using derivatives to hedge exposure or speculate on the general level of market-wide interest rates. This stance is also in line with global practice. The SARB's preference is also aligned with the approach that, ultimately, all derivative transactions should reference an overnight rate. The move would mark a significant shift from current practice in South Africa, where derivatives currently reference the three-month JIBAR rate and would therefore require transition.

The move to have derivatives reference an overnight rate does not preclude the adoption of a multiple reference rate approach, in which an overnight (near) risk-free rate coexists with term rates. However, this will be subject to: (i) there being compelling reasons for following such an approach; and (ii) term rates being fully transaction-based or derived from fully transaction-based overnight rates. An opportunity must therefore be afforded to the Transition Work Stream to determine whether there are indeed compelling reasons for South Africa to follow a multiple rate approach.

As pointed out by the Unsecured Reference Rates Work Stream, multiple rate regimes in other jurisdictions have achieved the co-existence of overnight rates and term rates by establishing alternative risk-free or near-risk-free rates and by strengthening their *existing* risk-based benchmarks. The latter is not a viable solution for South Africa. Beyond strengthening the current JIBAR framework for purposes of securing the transition period, the strengthened JIBAR cannot be part of the multiple rate regime as it would still fall short of the requirement for a fully-transaction based benchmark. This view is in line with the SARB's guidance that JIBAR will cease to exist.

The SARB also notes concerns expressed about the viability of transition, which has been used as a basis for adopting a multiple rate regime. The SARB is of the view that this argument cannot be used to justify an indefinite existence of JIBAR. A time-limited parallel run transition approach, where both JIBAR and an alternative reference rate co-exist, could be sufficient to address these concerns. Beyond which, only the overnight rate and, if deemed appropriate, an alternative term rate will exist.

Key Finding 4

JIBAR is representative of a reasonable volume of both primary and secondary market transactions, though primary activity in the shorter dated JIBARs have been adversely impacted by both Basel 3 liquidity regulations as well the evolution in market pricing dynamics (see Annexure 5). There are a number of further opportunities to enhance transparency that will reinforce market participants' confidence in the JIBARs which is covered in the key recommendations outlined in the next section.

The SARB view on representativeness of JIBAR

The SARB agrees that there remains a fair amount of primary and secondary market transactions in negotiable certificates of deposit (NCDs) and floating rate notes (FRNs) that are linked to JIBAR. Such market depth is important to consider as it provides a view of the degree of reliance of banks on JIBAR rates for funding. Transparency about such reliance can contribute immensely to the credibility of the benchmark. Observing and publishing this information should create transparency about the pricing of actual

JIBAR-linked trades relative to quoted rates which are used as a basis for calculating the benchmark.

However, it is instructive to note that JIBAR rates are not calculated based on actual trades, but on executable bids and offers quoted on contributing bank screens. The IOSCO requirement is that benchmark determination is based on actual trades on a one-day look-back basis. The SARB has expressed its preference to have all benchmarks under its administration underpinned, to the greatest extent possible, by actual transaction data and in line with the IOSCO Principles.

Key Finding 5

Establishing new benchmarks is critical for systemic risk monitoring and financial market stability.

Banks raise money market funding through tradable NCDs and FRNs as well as fixed deposit instruments from Non-Bank Financial Institutions, Corporates and Public Sector depositors. Pricing in the fixed deposit market is typically at a premium to the tradable instruments due to embedded pricing incentives for the lack of liquidity.

It is important for the regulator to have information on the pricing behavior in the fixed deposit market to ensure systemic risk can be appropriately monitored in the interest of maintaining financial market stability, particularly if the financial markets experience stress. There is value in establishing either one or two additional term benchmarks constructed out of NBFI and Corporate/Public Sector fixed deposits respectively to provide the SARB with pricing information in these 2 independent Basel 3 liquidity classes.

The SARB view on policy relevance of interest rate benchmarks

The SARB is aligned with the views expressed by the Unsecured Reference Rates Work Stream and concurs that observing pricing behaviour in the fixed deposit market (among other markets) is important when monitoring the transmission of monetary policy, as well as monitoring risk in the interest of maintaining financial stability.

Key Finding 6

The development of a broader range of benchmarks requires a large amount of data effort.

Fixed deposit transactional activity is not readily available to the open market as the contracts are not exchange traded but rather bi-lateral over the counter instruments. As a result fixed deposit transactions are only visible to the Bank and the Depositor.

The Data and Infrastructure work stream should be mandated to establish infrastructure and data standards to harvest fixed deposit transaction benchmarks for daily reporting purposes to the SARB.

The SARB view on data collection and management

Data plays a central role in the process of interest rate benchmark design and implementation. The IOSCO Principles highlight that the quality and integrity of a benchmark is enhanced when a benchmark is anchored in an active market, having observable *bona fide*, arms-length transactions. The SARB and the Data Collection and Infrastructure Work Stream will need to consider a number of data issues, including:

- establishing the type of data input (statistical information) that would be collected from specific reporting agents for purposes of calculating benchmarks;
- determining an efficient mechanism for collecting and quality processing of input data and the process for transmitting it;
- ensuring that data collection is underpinned by a legal framework that gives the administrator the power to compel identified institutions to supply such data; and
- ensuring that the control framework provides for robust infrastructure, policies and procedures for the management of risk, including operational risk.

The SARB will periodically review the methodology of each benchmark with a view of ensuring that its integrity and representativeness is consistent with the underlying interest that it aims to measure. This will require the SARB to have a clear view of the structure of the domestic money market and changes thereto. Thus, a more comprehensive dataset, akin to a money market statistical report, is required. The SARB does not have the advantage of an existing information technology (IT) system to facilitate data collection and quality processing of money market data. Hence, the SARB, along with the relevant MPG work stream, needs to design and implement a solution for this.

6. Key recommendations to the MPG

The efforts and contribution of the members of the work stream has informed a number of recommendations for the MPG to consider in the interest of strengthening the JIBARs and their viability into the immediate future. It is the firm belief of the work stream that implementation of these recommendations will afford the market sufficient time to focus on the design and establishment of alternative risk free or near risk free rates whilst maintaining a credible, transparent and robust JIBAR benchmark reference rate environment.

This will also allow sufficient time for markets to observe, analyze and understand the behavior of alternative risk free reference rates and ensures orderly transition that mitigates financial stability concerns.

Key Recommendation 1

Enhance pricing commitments to strengthen JIBARs price credibility.

The Code presently makes formal provision for Contributors to maintain live pricing between R20m to R100m, the work stream proposes that these pricing commitments be increased to R20-R500m to increase the volume that is guaranteed at the "JIBAR" rates during periods of normal market functioning.

Given the 5 JIBAR contributors (Absa Bank, FirstRand Bank, Investec Bank, Nedbank and Standard Bank), this will provide up to R2.5bn worth of committed pricing around the JIBAR rates increasing the integrity and tradability of the rate. This is particularly important to 3M JIBAR where primary market transactional activity is low and pricing commitments could be increased specifically at this critical pricing point.

It is further recommended that the price making commitments for smaller banks and the fallback provisions for Contributors' price making obligations during periods of market stress be debated and defined within the Money Market Subcommittee of the Financial Markets Liaison Group (the body that oversees the JIBAR setting process and the JIBAR Code of Conduct).

The SARB view on enhancing pricing commitments

The SARB supports the enhancement of pricing commitments in order to strengthen JIBAR. Higher price commitments add to the credibility of quoted bids and offers that ultimately form the basis for determining JIBAR. In line with the recommendation of the Unsecured Reference Rate Work Stream, all quoted bids and offers shall be executable for NCD trades of up to R500 million from the current ceiling of R100 million.

The SARB acknowledges the importance of the principle of proportionality in the case of smaller banks as well as flexibility in times of market turmoil. As such, consideration must be given to how the price commitment will be adjusted under these conditions. The Unsecured Reference Rates Work Stream is encouraged to consult with the relevant stakeholders on this issue and report its findings and recommendations to the MPG for final decisions. While consultation with various stakeholders is necessary, it must be noted that all decisions pertaining to the final choices and design of alternative reference rates have to be facilitated by the MPG.

Lastly, efforts to strengthen JIBAR are recognised as being aimed towards enhancing the framework for the critically-important reference rate and securing a transition period while alternative rates are being developed.

Key Recommendation 2

Enhance post primary trade transparency through the publication of primary transactions across the benchmark tenors of 1, 3, 6, 9 and 12 months on a t+1 basis.

The work stream proposes that relevant statistical data of primary market transaction flows relative to the published JIBAR rates be published on a t+1 basis to standardize market access to quality data designed to enhance transparency.

Source: STRATE

Calculation Agent: STRATE

Administrator: SARB

Appropriate buckets should be determined around each of the benchmark tenor points to capture qualifying primary market transactions whose price and volumes should be published and made accessible to all market participants drawing contrast to the official published JIBARs.

The SARB view on enhancing trade transparency

Similar to increasing pricing commitments, being transparent about primary and secondary market trades linked to JIBAR will contribute immensely to the credibility of the benchmark. From a governance point of view and in addition to the SARB's post-trade surveillance of market activity relating to JIBAR, additional transparency should further increase the probabilities of detecting untoward behaviour by market participants. It is important to note that the JSE will remain the calculation agent for JIBAR. The reference to calculation agent in this and other recommendations applies to the calculation of post-trade statistics that will be published as part of enhanced transparency.

This comment applies also to recommendations 3 and 4.

Key Recommendation 3

Enhance post-secondary trade transparency through the publication of secondary transactions on a t+1 basis.

The work stream proposes that relevant statistical data of secondary market transaction flows relative to the published JIBAR rates be published on a t+1 basis to standardize market access to quality data designed to enhance transparency.

This is of particular importance as a reasonable amount of secondary market trades happen at and around the 3 month point.

Source: STRATE

Calculation Agent: STRATE

Administrator: SARB

Appropriate buckets should be determined around each of the benchmark tenor points to capture qualifying secondary market transactions whose price and volumes should be published and made accessible to all market participants drawing contrast to the official published JIBARs.

Key Recommendation 4

Standardize and publish information pertaining to bank NCD and FRN redemption profiles on a quarterly basis.

The work stream proposes that the outstanding redemption profiles of Contributing banks NCD and FRN issuances be published on a quarterly basis to enhance transparency of the refinancing profile of tradable money market paper as well as the contingent secondary market risks within the South African money market. This provides the market with the information on potential future bank issuances at JIBAR rates.

Source: STRATE

Calculation Agent: STRATE

Administrator: SARB

On a quarterly basis the outstanding open market interest in both NCDs and FRNs should be published by maturity and volume for each of the active banking sector issuers to highlight the size and contingent secondary market trading risk across the South African money markets.

Key Recommendation 5

Mandate the Data and Infrastructure work stream to establish and implement the data standards for post primary trade, post-secondary trade and redemption profile reporting to market participants.

Source: STRATE

Calculation Agent: STRATE

Administrator: SARB

The SARB view on data collection for strengthening JIBAR

The SARB supports this recommendation. Considering that the first step in transitioning to alternative reference rates concerns the strengthening of the JIBAR framework, the SARB holds the view that the Data Collection and Infrastructure Work Stream would need to interact with relevant stakeholders such as the Unsecured Reference Rates Work Stream, STRATE, JSE and the current administrator of JIBAR to determine the best way of collecting and publishing the relevant additional information. An agreement must be reached in terms of the exact detail and form of information to be published. Importantly, this process will take priority above all other data collection exercises to ensure that all reforms to the current JIBAR framework take effect immediately.

Furthermore, while the SARB is supportive of STRATE being the calculation agent for post trade statistics, subject to there being no costs associated with performing this function. A direct feed of granular data into the SARB would still be required to enable surveillance, as is the case with the current JIBAR surveillance process.

Key Recommendation 6

Introduce additional independent risk based benchmark rates for NBFI and Corporate/Public Sector fixed deposit activities respectively for enhanced money market transparency and the regulator to enhance its monitoring and insights into financial stability within the banking system.

Effective monetary policy transmission and systemic risk monitoring are important aspects of market infrastructure, additional benchmarks can strengthen the regulators insights and promote timely intervention in the event of a systemic stress in South Africa.

Source: Banking Sector

Calculation Agent: SARB

Administrator: SARB

A tentative calculation methodology is outlined below to provide the Data work stream with a departure point for its work which will have the added benefit of practical data once sourced from the industry:

- Establish suitable benchmark tenor points, for example 1m, 3m, 6m, 9m and 12m;
- Incorporate all deposit transactions greater than R20 million with maturity dates within 5 business days on either side of the benchmark tenors;
- Aggregate all deposit transactions per rate;
- Employ a trimmed mean approach to determine the daily volume weighted average of transactions per benchmark tenor (for example excluding the top and bottom 10 percentiles of the data by rates);
- Establish suitable contingency measures in the event of insufficient transactional data; and
- Publish the new benchmark rates daily with a t+1/t+2 lag to ensure credibility and sustainability of the required data extraction and computation processes.

The SARB view on the introduction of additional risk-based benchmarks

This recommendation has been taken on board by the SARB, which, in consultation with the Unsecured Reference Rates Work Stream, has made proposals in terms of the underlying interest, calculation methodology and contingency arrangements applicable to both the NBFI and FI deposit benchmarks. These proposals are contained in the draft statement of methodology and policies that will govern SARB-administered benchmarks. All stakeholders have been afforded an opportunity to comment on the proposed methodology and comments should be directed to sarbrirb@resbank.co.za by 19 September 2020.

Key Recommendation 7

Mandate the Data and Infrastructure work stream to establish the data standards, collection approach and proposed calculation methodologies of the new NBFI and Corporate/Public Sector deposit benchmarks for reporting to the SARB.

Where practical the Data and Infrastructure work stream should also consider extracting retrospective data to establish an appropriate degree of historical time series for back testing purposes.

Source: Banking Industry

Calculation Agent: SARB

Administrator: SARB

The SARB view on data collection

In line with the SARB's view on how South Africa should proceed with data collection and management for purposes of determining interest rate benchmarks, the SARB is in the process of engaging market participants on how best to take this forward.

Key Recommendation 8

Incorporate recommendations 1 through 5 into a 2020 revision to the JIBAR Code of Conduct.

These changes must incorporate appropriate fallback provisions that guide Contributor price making commitments during periods of market stress.

The combination of these measures will strengthen the overall credibility of the South African money markets by deepening the transparency requirements that reinforce the credibility of the JIBARs.

The SARB view on the amendment of the JIBAR code of conduct and operating rules

The SARB supports this recommendation, and work has begun work to amend the JIBAR code of conduct and operating rules. The proposed amendments are in line with the recommendations of the Unsecured Reference Rates Work Stream. All proposed amendments will be tabled at the Financial Markets Liaison Group for comment, prior to being submitted to the MPG and later the Reference Rate Oversight Committee for approval.

7. Conclusion

The JIBARs are fundamentally different to the IBORs, as they represent a large volume of money market activity in South Africa in the primary and secondary markets. Despite the shorter tenors reflecting low volumes in the primary market, a reality that has been directly influenced by regulation and pricing trends, they remain relevant in the secondary markets. The pricing commitments of issuers remain constantly exposed to a material volume of secondary market trade. These dynamics collectively drive pricing formulation and commitments through the natural forces of demand and supply thus ensuring credibility.

Contributors to JIBARs face robust regulations in the form of the JIBAR Code of Conduct that regulates conduct, enhances transparency, induces an environment of credibility and affords escalation of poor conduct through whistleblowing recourse.

The work stream believes that the JIBARs, most importantly 3M JIBAR, can be strengthened by a number of reform measures, namely:

1. Creating up to R2.5 billion of live pricing commitments, particularly around 3 month or c. R25 billion per month that is made available over pre-defined trading hours to establish greater pre trade transparency,
2. Enhancing post trade transparency that is standardized and made available to all market participants covering post primary and secondary trading activity, to reveal in particular the secondary market trade volume in shorter dated JIBARs,
3. To develop additional fixed deposit benchmarks to enhance transparency for all market participants and provide the SARB with additional information on other sources of primary bank funding, in the interest of enhancing systemic risk monitoring and maintaining financial stability.

These recommendations are intended to strengthen the JIBARs whilst alternative risk free reference rates are developed, however these measures can also support the sustainability of the JIBARs in a multiple rate regime.

The SARB is supportive of the recommendations of the Unsecured Reference Rates Work Stream and welcomes proposals to enhance the current JIBAR framework. In line with guidance provided by the SARB, efforts to strengthen JIBAR are recognised as being aimed towards enhancing the framework for the critically-important reference rate and securing a transition period while alternative rates are being developed. These changes should not be understood as implying that JIBAR will continue indefinitely. The SARB, as the benchmark administrator of JIBAR, has decided that JIBAR will cease at some future point. Should the MPG decide on a multiple-rate regime for South Africa, an alternative risk-based term benchmark would need to be developed. Such a benchmark would also need to be fully transaction-based or be derived from a fully transaction-based overnight rate.

It is envisaged that all changes to the current JIBAR framework will become effective before the end of 2020. The new framework will be remain in place for a limited amount of time, after which South Africa will transition fully to alternative reference rates. The MPG will provide further guidance in due course.

Annexure 1 – IOSCO Principles Overview

Below is a brief overview of the 19 IOSCO Principles that was established in 2013 as a means to guide robust benchmark reforms.

Principle	Summarised Description & Discussion
Governance:	
1. Responsibility of the Administrator	The Administrator should retain primary responsibility for all aspects of the Benchmark determination process, including; development, determination and dissemination, operation and governance.
2. Oversight of Third Parties	Where activities relating to the Benchmark determination process are undertaken by third parties the Administrator should maintain appropriate oversight of such third parties.
3. Conflicts of Interest for Administrators	To protect the integrity and independence of Benchmark determinations, Administrators should document, implement and enforce policies and procedures for the identification, disclosure, management, mitigation or avoidance of conflicts of interest.
4. Control Framework for Administrators	An Administrator should implement an appropriate control framework for the process of determining and distributing the Benchmark.
5. Internal Oversight	Administrators should establish an oversight function to review and provide challenge on all aspects of the Benchmark determination process.
Quality of Benchmark:	
6. Benchmark Design	The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure, and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark. Some factors to consider are the adequacy of the sample, size and liquidity of the relevant market, relative size of the underlying market, distribution of trade among Market Participants and market dynamics.
7. Data Sufficiency	The data used to construct a Benchmark determination should be sufficient to accurately and reliably represent the Interest measured by the Benchmark and should: based on prices, rates, indices or values that have been formed by the competitive forces of supply and demand in order to provide confidence that the price discovery system is reliable; and be *anchored by observable transactions entered into at arm's length* between buyers and sellers in the market.
8. Hierarchy of Data Inputs	An Administrator should establish and Publish or make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks.
9. Transparency of Benchmark Determination	The Administrator should describe and publish with each Benchmark determination, a concise explanation of how the determination was developed and a concise explanation of the extent to which and the basis upon which Expert Judgment if any, was used.
10. Periodic Review	The Administrator should periodically review the conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has undergone structural changes that might require changes to the design of the Methodology. The Administrator also should periodically review whether the Interest has diminished or is non-functioning such that it can no longer function as the basis for a credible Benchmark.
Quality of Methodology:	

11.	Content of the Methodology	The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations. The Administrator should provide the rationale for adopting a particular Methodology. The Published Methodology should provide sufficient detail to allow Stakeholders to understand how the Benchmark is derived and to assess its representativeness, its relevance to particular Stakeholders, and its appropriateness as a reference for financial instruments.
12.	Changes to the Methodology	An Administrator should Publish or Make Available the rationale of any proposed material change in its Methodology, and procedures for making such changes.
13.	Transition	Administrators should have clear written policies and procedures, to address the need for possible cessation of a Benchmark, due to market structure change, product definition change, or any other condition which makes the Benchmark no longer representative of its intended Interest.
14.	Submitter Code of Conduct	The Administrator should develop guidelines for Submitters ("Submitter Code of Conduct"), which should be available to any relevant Regulatory Authorities, if any and Published or Made Available to Stakeholders.
15.	Internal Controls over Data Collection	When an Administrator collects data from any external source the Administrator should ensure that there are appropriate internal controls over its data collection and transmission processes.
Accountability:		
16.	Complaints Procedures	The Administrator should establish and Publish or Make Available a written complaints procedures policy, by which Stakeholders may submit complaints.
17.	Audits	The Administrator should appoint an independent internal or external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated criteria and with the Principles.
18.	Audit Trail	Written records should be retained by the Administrator for five years, subject to applicable national legal or regulatory requirements relating to the determination and dissemination of the benchmark.
19.	Cooperation with Regulatory Authorities	Relevant documents, Audit Trails and other documents subject to these Principles shall be made readily available by the relevant parties to the relevant Regulatory Authorities in carrying out their regulatory or supervisory duties and handed over promptly upon request.

Annexure 2 – An overview of the money market activity underpinning JIBAR

The JIBARs were established in the 1990s as benchmarks for short-term money market activities in South Africa. The money market activities are systemic to the funding needs of the domestic banking system, whereby local banks issue tradable money market instruments such as NCDs and Floating Rate Notes (FRNs) to support their funding needs.

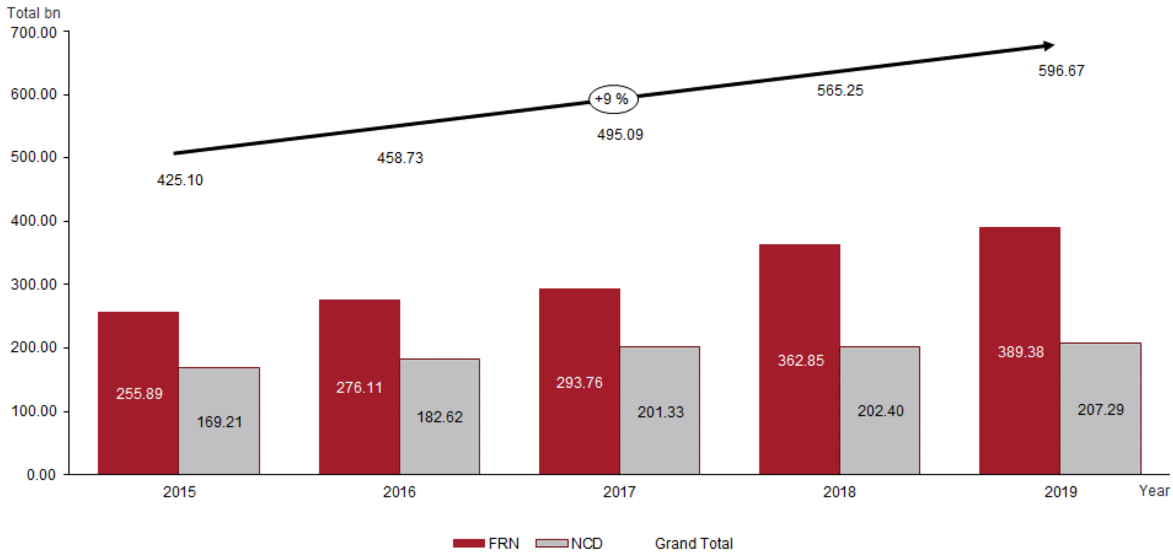
JIBAR is determined by the average of the bid and offer rates (redemption and deposit taking rates) provided by local bank Contributors for both primary and secondary market trade in NCDs. The determination process is administered by the Johannesburg Stock Exchange (JSE Ltd) who collates each contributing banks indicated bid and offer rates, discards the top and bottom twenty five percentiles and aggregates the remaining contributions to arrive at the official benchmark reference rates for the 1, 3, 6, 9 and 12 month JIBAR for each business day in South Africa.

The JIBARs are a formal reflection of the aggregate real time pricing commitments of Contributing banks for volumes of up to R100m per trade (as regulated) for investors to either invest new funds or redeem existing investments in NCDs, informally these pricing commitments go well beyond R100m.

The issuance in NCDs and FRNs, the most traded money market instruments in South Africa, has continued to grow in importance in South Africa. Graph 4[2] shows the trajectory of outstanding issuance in the recent past which shows consistent growth in its relevance to investors and the banking sector.

[2] **Source: STRATE**

Graph 4 – Total NCDs and FRNs in Issue



A broad range of investors employ these instruments within their investment mandates; such investors include Asset Managers, Pension Funds, Insurance Companies, Corporates and Banks.

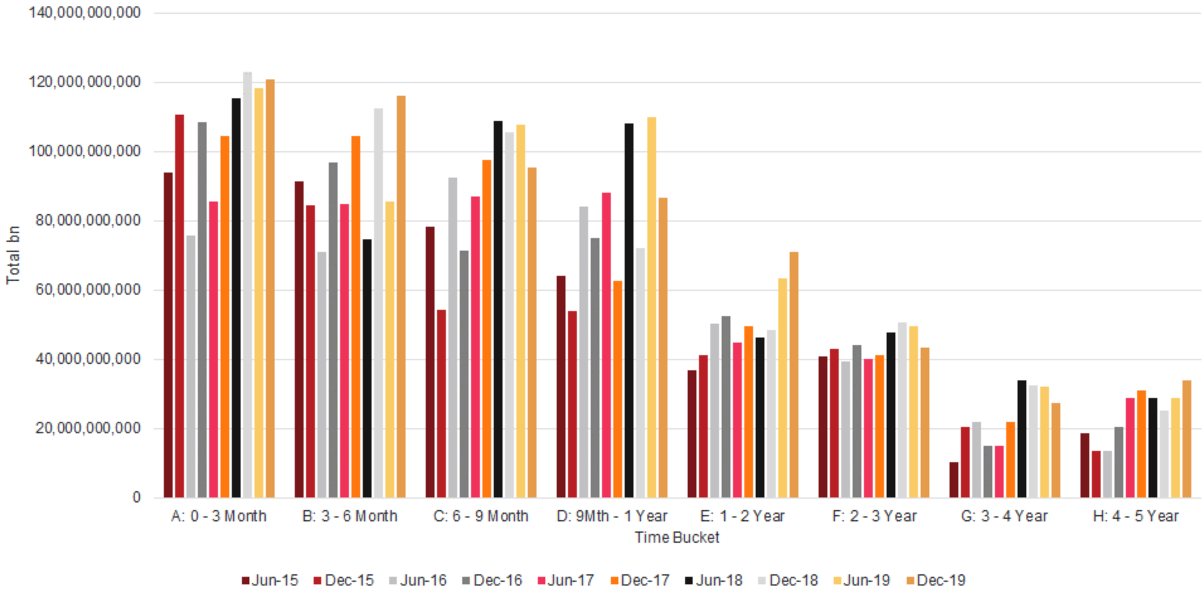
The JIBARs also contribute to the formulation of the investor benchmark known as the Short-Term Fixed-Interest Index (STEFI), which is referenced extensively within the Asset Management Industry as a performance measurement tool for the purposes of various money market funds.

The pricing commitments of JIBAR Contributors plays a very important role in the forces influencing the formulation of market pricing. On the one hand they are driven by the demand for funding by the Contributors to support its balance sheet financing requirements, on the other hand the banks offer market making activities to both buy and sell the NCD's at a screen price. Pricing is therefore shaped by the natural forces of supply and demand.

Graph 5[3] reflects the magnitude of maturing money market activity over the past 5 years based on the remaining term to maturity of NCDs and FRNs. This is an important consideration when questioning the potential secondary market transactional activity under pinning the JIBARs, in particular 3M JIBAR. The existence of a substantial cash market based on firm pricing commitments strengthens the level of compliance with the IOSCO principles.

[3] **Source: STRATE**

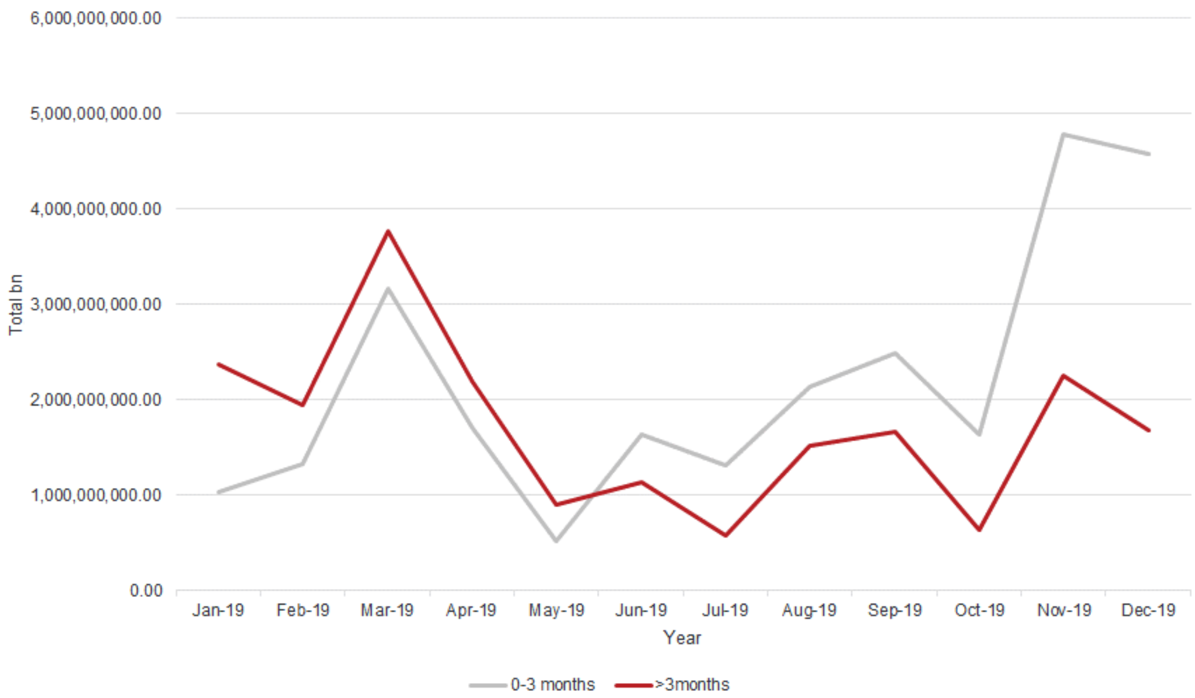
Graph 5 – Total Residual Maturity of NCDs and FRNs



There is also reasonable amount of secondary market activity in the South African money markets, Graph 6[4] illustrates a subset of the secondary market buyback trade activities experienced by Absa Bank and FirstRand Band during the course of 2019 by the aggregate residual outstanding maturity of the NCDs and/or FRNs.

[4] **Source: Absa Bank and FirstRand Bank Secondary Market Buyback Activity**

Graph 6 – Subset of Secondary Money Market Buyback Trading Activity in 2019



The magnitude of contingent redemption risk is often under appreciated by the broader market due to lack of explicit reporting transparency, Graph 5 highlights the contingent risk of secondary market trade has consistently exceeded R80bn in the 0-3 month tenor bucket over the past 4 years, whilst Graph 6 illustrates a reasonable magnitude of secondary trade over the past year using Absa Bank and FirstRand Bank data for 2019. This is important when considering the importance and credibility of the short term JIBARs as reference rates in the Global financial market place.

When combining the magnitude of the money markets, the issuers' pricing commitments, secondary market activities, the size of contingent secondary market activity and the ability of asset managers to replicate the underlying performance of the STEFI benchmark, it is clear that JIBAR benchmark reference rates represent a credible underlying market that is formed through the natural forces of supply and demand.

The key difference between JIBAR relative to the historical LIBOR process can be summarized as follows:

1. JIBAR is based on committed issuer pricing,
2. The magnitude of primary market activity in the South African money market has and continues to grow at a steady pace,
3. There is observable secondary market activity in the money markets with roughly 50% concentrated around 3 months,

4. Contingent secondary trade risk is large, and

The regulator enforces strong oversight over Contributors (covered in further detail in Annexure 4).

Annexure 3 – Single versus Multiple Rate Regimes

To date the developed markets have made progress in establishing alternatives and some have even set firm timeframes for the transition to new reformed risk free reference rates (Single rate regimes). There are however numerous jurisdictions that are approaching reform with a high degree of caution due to the significant financial market disruption that a poorly managed transition could cause. The table below provides a high level overview of the state of benchmark reform efforts outside of South Africa.

Table 1: Overview Global Benchmark Reform Progress[5]

	Country									
	US	UK	EU		Canada		Japan		Australia	
IBOR pre-reform	USD LIBOR	GBP LIBOR	- EURO LIBOR, - Euro Overnight Index Average (EONIA) - Euro Interbank Offered Rate(EURIBOR)		Canadian dollar offered rate (CDOR)		Japanese Yen LIBOR (JPY LIBOR)		Bank Bill Swap Rates (BBSW)	
Approach for reform	Single	Single	Multiple		Multiple		Multiple		Multiple	
New rates	Secured Over-night Finan-cing Rate (SOFR)	Reformed SONIA	Euro short Term Rate (€STR)	Hybrid Euro Inter-bank Offered Rate (EURIBOR)	Canadian Dollar Offered Rate (CDOR)	Canadian Overnight Repo Rate Average (CORRA)	Tokyo Interbank Overnight Rate (TIBOR)	Tokyo Overnight Average Rate (TONAR)	Bank Bill Swap Rates (BBSW)	AUD Overnight Index Average (AONIA)
IOSCO compliant?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secured / unsecured?	S	U	U	U	U	S	U	U	U	U
Is term rates available?	N – Q3 2021	N	N	Y	Y	N	Y	N	Y	N
Published since	May 2018	Apr 2018	Oct 2019	Nov 2019	Continues	Q2 2020	Jul 2017	2016	May 2018	May 2016

Key Observations

It is important to distinguish the key underlying motives for jurisdictions to adopt either a single or multiple rate regime, these motives are summarized briefly below:

<u>Single Rate Regimes</u>

A number of necessary conditions are required for confidence in a jurisdiction to establish firm timelines for a holistic transition to new reformed risk free reference rates. Particularly when these alternatives are meaningfully different in absolute rate, tenor and behavior through time. Conditions include the existence of a reformed alternative reference rate with a reasonable degree of backward looking data to allow market participants to assess behavior and quantify potential transition adjustments to

[5] **See Supplementary Document 1 for the detailed Overview of Individual Member States' progress on the Reform of Benchmarks within their Individual Jurisdictions**

financial contracts (for instance SOFR will have a little more than 4 years of market data before transition), there should ideally be signs of balance sheet activities within the broader marketplace that references these new rates and most importantly the derivative market (risk transfer tools) need to have established a reasonable foothold in activity as volumes in this market are a strong indicator of market liquidity (often forming greater than 80% of financial contracts whose financial outcome is based on reference rates). The existence of these conditions allows for a high degree of confidence in the viability and long term sustainability of transitioning holistically to new alternative risk free reference rates.

Multiple Rate Regimes

On the other hand, multiple rate regimes are often necessary when the conditions exist to strengthen existing IBORs. **Particularly where there is existence of credible underlying cash market interest through tradable paper where pricing is formed through the natural forces of demand and supply**. These jurisdictions also either haven't or have only recently established alternative risk free reference rates where viability and long term sustainability is unknown due to the lack of balance sheet activity and limited or no derivative market activity referencing new alternatives. Such a backdrop introduces financial stability risks to establishing firm timeframes, often requiring more time for financial market development. Multiple rate regimes can potentially evolve into Single rate regimes should the appropriate level of depth develop in financial market activity referencing alternative rates.

Annexure 4 – Overview of the JIBAR Code of Conduct

In response to conduct concerns in the developed markets the SARB commissioned a review of the overall JIBAR process in 2012, the outcome of the review resulted in the introduction of the JIBAR Code of Conduct[6] (the Code) in 2013 to ensure a robust domestic governance environment that acts as a deterrent to poor conduct on the part of Benchmark Contributors.

The Code is aimed toward strengthening transparency to achieve efficient functioning of the financial market place. It lays out the obligations of contributors, calculation agent and the regulator. The Code also makes provision for complaints and whistleblowing to ensure appropriate recourse to the regulator in the event of misconduct.

The obligations of Contributors is broad and requires that they quote real time pricing through multiple electronic platforms, reflect credible bid and offer rates that are reflective of their financing interests, maintain an overall spread within regulatory guidance to ensure market pricing consistency, establish robust internal governance to ensure compliance with the Code and that contributing banks ensure senior management ownership and oversight of the overall JIBAR process.

The regulator plays an important and dynamic role in assessing Contributors' compliance with the Code by screening all transactions on a t+1 basis to ensure that there is consistency between a Contributors submitted rates for the JIBARs and any primary market transactions that the Contributor may have concluded with the open market together with the observation of screen pricing transparency relative to traded levels.

The Code was established with the IOSCO principles as a benchmark (summarized in the next section). The establishment of the Code and the breadth of its obligations placed on Contributors materially strengthened transparency, surveillance, conduct and plays a pivotal role in strengthening the overall credibility of the JIBARs. The Code is reviewed annually to ensure evolving robustness.

Despite this, the work stream has identified a number of further opportunities to strengthen the JIBARs as detailed in section 5, these considerations will need to be incorporated into the Code if ratified for implementation by the MPG.

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[6] **JIBAR: Code of Conduct, Governance Process and Operating Rules**

Annexure 5 - Impact of Basel 3 Liquidity Regulations on JIBAR

Basel 3 liquidity regulations were promulgated in 2013 and implemented over the course of 2015 through 2019. It has had a material impact on the duration of money market instruments banks in South Africa issue to finance their real economic activities.

Firstly, the Liquidity Coverage Ratio, which was phased in from 2015 through 2019, disincentivises short term fund raising from Banks and/or Non-Bank Financial Institutions in order to conduct real economic lending.

Achieved by redirecting such funding into High Quality Liquid Asset (HQLA) investments to mitigate the liquidity risk associated with refinancing uncertainty should the issuing bank experience a liquidity stress.

$$\textbf{LCR} = \frac{\textbf{Stock of high quality liquid assets}}{\textbf{Net cash outflows over the next 30 days}} \geq \textbf{100\%}$$

High Quality Liquid Asset (HQLA) Requirements: Typical Sovereign or High Quality Corporate Debt that trade in low risk, deep and active markets, are unencumbered and freely available.

Secondly, the Net Stable Funding Ratio (NSFR) measures the amount of longer-term, stable funding sources required by an institution given the liquidity profile of its assets and the contingent liquidity risk arising from off-balance sheet exposures. The standard defines the minimum amount of funding that is expected to be stable over a 1 year horizon. The NSFR is intended to promote longer-term structural funding of a bank's balance sheet.

$$\textbf{NSFR} = \frac{\textbf{Available amount of stable funding (ASF)}}{\textbf{Required amount of stable funding (RSF)}} \geq \textbf{100\%}$$

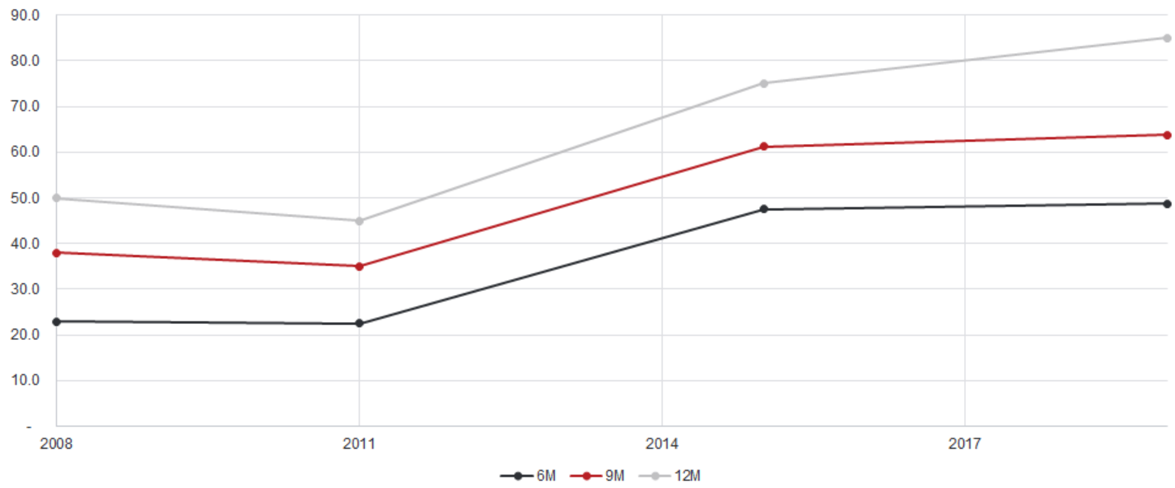
In combination these two new regulations have incentivized the banking sector to issue longer dated debt (in particular money market instruments) into the domestic investor base as a means to ensure regulatory compliance with these two new liquidity measures in the primary market.

An additional factor that has compounded the duration dynamic is the increase in the cost of fundraising that has faced the banking sector since the global financial crisis. Graph 7[7] shows the cost trajectory banks have faced since the late 2000s to raise

[7] **Source: Absa Bank and FirstRand Bank Liquidity Premium Spreads**

funding in the 3, 6, 9 and 12 month maturities as a spread above the 3 month JIBAR benchmark.

Graph 7 – Cost of Bank Financing above 3M JIBAR



This increasing cost trajectory for the banking industry has added price incentives for investors to extend the duration of their portfolios to enhance return. Given the market making commitments of banks, investors do have the ability to liquidate portions of these investments should they experience liquidity needs. This has therefore increased secondary market activity, particularly in the short term space.

It is therefore clear that the banking regulations and market pricing trends over time have incentivized an increase in the duration of money market activity. This has had the adverse consequence of reducing primary issuance of shorter dated NCDs, including particularly 3M NCDs which is the benchmark reference rate for the majority of the c. R 40 trillion in open financial market contracts across the South African economy.

However this does not conclude that 3M JIBAR is not credible. Pricing commitments to issue remain live daily, and there is a reasonable amount of secondary market activity within the money markets to act as a self-regulating mechanism to achieve pricing credibility.

Annexure 6 – Breakdown of the banking sectors term wholesale liabilities

The table below outlines the term wholesale financing activities of the large South African Banks. As reflected by the data, Non-Bank Financial Institutional investors represent the largest contributors of wholesale financing to the banking sector, with products ranging from tradable NCDs and FRNs through to non-tradable fixed deposit instruments. This category has been the key focus of the SARB's consultation paper and one of its key recommendations with respect to Hybrid-JIBAR.

Beyond this source of financing the incremental wholesale financing sources relate to Non-Financial Corporate and Public Sector depositors which take on the form of fixed deposits. This is a proportionately smaller volume of deposits and as outlined in the body of this paper, fixed deposit instruments often embed relationship pricing aspects which would not be suitable from a benchmark design perspective. Therefore no alternative risk based reference rates could be considered.

Tenor	**Non-Bank Financial Institutions and Banks**	**Non-Financial Corporate**	**Public Sector**
Other Short Term (1 day to 1 month)	160	78	120
Medium Term (1 month to 6 months)	331	80	76
Long Term (greater than 6 months)	875	59	32
Total	**1,366**	**218**	**228**
Percentage of Term Wholesale Deposits	**75%**	**12%**	**13%**

*BA900 data as at March 2020

Annexure 7 – Assessment of JIBAR, Hybrid-JIBAR and Strengthened JIBAR against key IOSCO Principles

The International Organisation of Securities Commissions (IOSCO) released its Principles for Financial Benchmarks final report in July 2013. The objective of the Principles was to "*create an overarching framework…"; "…that will address conflicts of interest in the Benchmark-setting process, as well as transparency and openness when considering issues related to transition*."[8]

IOSCO established 19 Principles intended to harmonise processes across all types of Benchmarks, not just the critical benchmarks such as the Libors. Please refer to Annexure 1 for a full list and brief overview of these Principles.

They key and most critical IOSCO principles of Benchmark Design, Data Sufficiency, Hierarchy of Data Inputs and Submitter Code of Conduct are applied to the following existing and potential benchmark reference rates in order to assess their respective levels of compliance.

1. 3M JIBAR – with consideration to the primary underlying market activity only, as previously assessed by the SARB,
2. 3M Hybrid-JIBAR – as outlined in the SARBs consultation paper, whereby NCD and NBFI Fixed Deposit transactional data are consolidated, and
3. 3M Strengthened JIBAR – with consideration to the multitude of perspectives including primary, secondary, contributor price making obligations and size of underlying interest in the market.

[8] **IOSCO Principles for Financial Benchmarks**

Key IOSCO Principles	3M JIBAR (as previously assessed)		3M Hybrid JIBAR (as per Consultation Paper)		3M Strengthened JIBAR (Work stream recommendation)	
Principle 6: Benchmark Design	x	Previously the design of JIBAR only considered primary market activity. As pointed out in the consultation paper, there is limited primary market trade activity in 3M JIBAR to support IOSCO compliance.	x	The Hybrid JIBAR combines NCDs and NBFI deposits in its determination. One of the fundamental challenges is the comingling of products that have vastly different liquidity features which drive meaningful differences in pricing. Such an approach suffers from design flaws that create substantial volatility in rates that is unpredictable and potentially detrimental if referenced by financial market transactions.	✓	The holistic approach considers the following: the overall size and liquidity of the South African money markets (c. 600bn), primary market activity in NCDs, the existence of secondary market activity in both NCDs and FRNs with residual maturities of less than 3 months and the size of contingent secondary trade activities which support and reinforce price formulation through the natural forces of supply and demand.
Principle 7: Data sufficiency	x	Due to lack of market activity it was previously assumed that confidence around price discovery for 3M JIBAR is low. Due in particular to limited primary market trade in 3 month NCDs.	✓	The Consultation Paper argues that the inclusion of NBFI deposits will strengthen data sufficiency.	✓	While there isn’t a meaningful number of primary market transactions supporting 3M JIBAR, the existence of secondary market activity in both NCDs and FRNs with residual maturities of up to 3 months exists. There is furthermore a credible argument in the size of the underlying money markets that drives the pricing commitments of contributors through the natural forces of supply and demand. Enhanced contributor pricing commitments brings greater credibility to live market pricing.
Principle 8: Hierarchy of data inputs	✓	Takes committed quotes as inputs into Benchmark determination which is in compliance with IOSCO Principles, though rests further down the waterfall approach	✓	Takes committed quotes as inputs into Benchmark determination which is in compliance with IOSCO Principles.	✓	Takes committed quotes as inputs into Benchmark determination which is in compliance with IOSCO Principles, though rests further down the waterfall approach. Consideration could be given to harvest secondary market data, however this may require a high degree of reliance on interpolation which could materially complicate the determination process and add potential undue volatility due to pricing dynamics in the vicinity of Monetary Policy Meetings/Decision points.

Principle 14: Submitter Code of Conduct	✓	As discussed previously The Code has been established in 2013, which has strengthened transparency and improved the functioning of the financial market place. In the case of Hybrid JIBAR the Code could be extended to cover the transactional information necessary to construct this benchmark. The Code enforces committed bid/ask prices which are tradeable in the market. The regulator enforces strong oversight over Contributors through The Code.

It is clear that when taking a holistic view of the South African money market environment, there is a strong and credible case in support of a reasonable degree of compliance by the strengthened JIBARs with the IOSCO principles.