MONEY MARKET SUBCOMMITTEE – TRIPARTY COLLATERAL MANAGEMENT CONCEPT POSITION PAPER







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Abbreviations

| Abbreviation | Description |
|--------------|-------------------------------------------------------------|
| BCBS | Basil Committee on Banking Supervision |
| BRS | Business requirement specification |
| СЕТ | Common equity tier |
| CLF | Committed liquidity facility |
| CVA | Credit value adjustment |
| FRS | Functional requirement specification |
| FX | Foreign exchange |
| GFC | Global financial crisis |
| HQLA | High-quality liquid assets |
| LCR | Liquidity coverage ratio |
| ммѕ | Money Market Subcommittee |
| NPS | National payment system |
| RTGS | Real-time gross settlement |
| RWA | Risk-weighted assets |
| SAMOS | South African Multiple Option Settlement |
| SARB | South African Reserve Bank |
| SFT | Securities financial transactions |
| SWIFT | Society for worldwide interbank financial telecommunication |
| ТСМ | Triparty Collateral Management |



2 Introduction

The purpose of this position paper is to provide the implementation principles for the Triparty Collateral Management (TCM) framework.

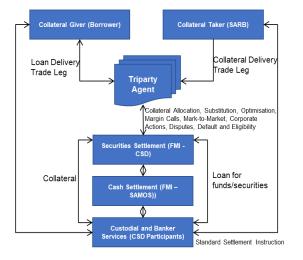
The market participants have expressed a need for optimisation and mobilisation of the collateral assets held with the South African Reserve Bank (SARB) for the secured funding provided.

This need for optimisation and mobilisation emanates from the continued growth in the demand for collateral in the South African financial markets, mostly as a result of strengthened regulatory requirements such as the Basel III and Financial Markets Act 19 of 2012 (Financial Markets Act) (GIG, 2019) (Malotana, 2014) (Becker, Ryan, Boyle, Maus, & Nichols, 2020) (CGFS, Asset encumbrance, financial reform and the demand for collateral assets, 2013).

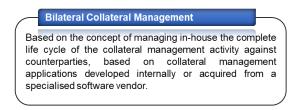
As a result, the SARB is evaluating the feasibility to enable the capability development for becoming a TCM participant to support these optimisation and mobilisation needs for the qualified market participants.

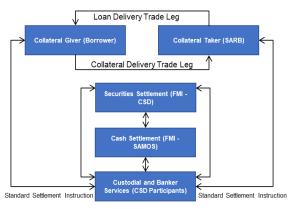
2.1 Collateral Management Operating Models





Contracting for trade terms: Global Master Repurchase Agreement (GMRA)





Contracting for trade terms: Global Master Repurchase Agreement (GMRA)



2.2 Document organisation

Section 2: Provides an overview of the SARB facilities that support the local financial market's liquidity requirements and ensure financial stability in the South African financial system.

Section 3: Outlines the scope of this initiative in preparing for the project's implementation and the list of stakeholders that will be consulted to guide the project implementation process.

Section 4: Outlines the regulatory drivers contributing towards the increased demand for collateral in the South African financial and capital markets. It also provides an overview of the Basel III and the Financial Markets Act objectives for the securities financing transactions (SFTs).

Section 5: Outlines the proposed implementation principles for TCM. These principles guide the proposed framework which in turn aligns to the global standards. It covers the transaction's lifecycle, collateral optimisation and mobility aspects. corporate actions treatment, financial risk parameters through basket definition and credit ratings, and finally contractual. account and connectivity options.

<u>Section 6</u>: Covers the definition of default and dispute processes. The detail of these definitions will be agreed upon by the SARB and the market participants.

Section 7: Outlines the approach for the project delivery as well as the flight plan up to the business case. The project implementation timeline will be communicated once the business case is approved, and project implementation is initiated.



3 The South African Reserve Bank and collateral

3.1 Refinancing operations

The primary objective of the SARB is to achieve and maintain price stability in the interest of balanced and sustainable economic growth. In addition, together with other institutions, it also plays a pivotal role in ensuring financial stability (van der Merwe, 1998).

In pursuing price stability, the Monetary Policy Committee sets the repurchase (repo) rate which affects the borrowing costs of the financial sector, which, in turn, affects the broader economy and inflation (SARB, Monetary Policy Implementation Framework, 2021).

The SARB transmits the repo rate through creating a liquidity requirement (or shortage) in the money market. The liquidity shortage is created through the growth in autonomous factors, which includes banks' cash reserve balances and growth in notes and coin in circulation. In addition, the SARB has other tools at its disposal to drain liquidity, such as the issuance of SARB debentures, long-term reverse repos, foreign exchange (FX) swaps, and the movement of government funds between the market and the SARB. Banks refinance this liquidity shortage on a weekly basis at the prevailing repo rate (SARB, Monetary Policy Implementation Framework, 2021).

In addition to the weekly main repo, the SARB also offers discretionary end-of-day supplementary repurchase facilities (conducted at the prevailing repo rate) and automated end-of-day standing facilities (conducted at the prevailing repo rate plus or minus 100 basis points) to manage day-to-day fluctuations in market liquidity due to autonomous factors changing more than expected (SARB, Monetary Policy Implementation Framework, 2021).

The main repo as well as the supplementary and standing facilities are collateralised. Collateral is defined to be assets pledged as security against loans. The SARB accepts highquality liquid assets (HQLAs) comprising government bonds, Treasury bills and SARB debentures as collateral for its refinancing operations (SARB, Monetary Policy Implementation Framework, 2021).

Central banks have policies on collateral which provide a flexible framework that ensures they are protected from financial losses due counterparty default and ensures that they can continue to meet their objectives in terms of implementing the monetary policy and ensuring financial stability for the country as a whole. Additionally, these aforesaid financial instruments bought by banks are categorised as liquid/marketable assets in the respective bank's





statements of financial position. The banks buy and trade HQLAs in the financial markets in line with their different balance sheet liquidity requirements (Taudi, 2020) (Buessing-Loercks, King, Mak, & Veyrune, 2020).

3.2 Intraday settlement facility within the national payment system

The South African Multiple Option Settlement (SAMOS) system is a real-time gross settlement (RTGS) system that facilitates the interbank settlement of funds. In the event of any bank, which is a central bank settlement system participant not having adequate funds for effecting settlement in the SAMOS system, the SAMOS system will automatically advance the required funds against defined acceptable/eligible collateral. At present, the list of eligible securities accepted in the SAMOS system are aligned with the list of HQLAs accepted by the SARB in the daily and weekly refinancing operations (SARB, Domestic Settlement Services, 2021).

3.3 Committed liquidity facility

The global financial crisis (GFC) underscored the importance for prudent liquidity risk management by commercial banks. Due to the significant liquidity constraints faced by the commercial banks during the GFC, the Basel Committee on Banking Supervision (BCBS) proposed tighter liquidity requirements to form part of the Basel III regulations. The aim was to ensure a banking system that would be resilient during periods of financial market stress.

The Basel III regulations introduced the liquidity coverage ratio (LCR). Commercial banks are required to have adequate HQLA readily available to cover their estimated net cash outflows for a 30-day period, in the event of any financial market stress. This ensures that a bank has adequate liquid assets to meet its short-term liquidity needs during such an event.

Due to the shortage of HQLA in South Africa, the SARB introduced the committed liquidity facility (CLF) to provide commercial banks with a guaranteed source of liquidity (Prudential Authority, 2018).

4 The mandate

4.1 Background

The members of the Money Market Subcommittee (MMS) expressed a need for securities financing transactions process optimisation in the South African financial markets.



The role of the SARB is therefore envisaged to be an enabler, given its market role in the course of implementing the monetary policy through repo transactions and open market operations in order to maintain liquidity in the financial system. The aforementioned also contributes towards a smooth functioning payment system.

The aim of this initiative is to:

- evaluate the feasibility for the SARB to build the capability for enabling the automation of availing the collateral assets held against credit exposure it has with its counterparties; and
- support these market participants to cover other collateral demand requirements in the market such as large exposure requirements and other trading and margining requirements.

These exposures emanate from the liquidity facilities the SARB provides to market participants, namely:

- refinancing operations (main, supplementary and standing facility repo facilities);
- intraday liquidity facility with the national payment system (NPS) to aid settlement in SAMOS; and
- CLF for assistance in complying with the Basel III LCR requirements.

The Triparty Agency model was identified as most appropriate for collateral optimisation and mobilisation. The TCM platform would enable straight-through processing of collateral management transactions, domestic assets mobilisation through collateral optimisation, the creation of a reporting capability with an industry-wide consolidated view of domestic collateral assets and align to international standards for collateral management market infrastructure.

In addition, it is envisaged that the intelligence built into the TCM platform will allow for a comprehensive mobilisation and optimisation of assets, on an automated basis. Thus, ensuring non-cash collateral assets are effectively utilised with a 'cheapest-to-deliver' approach for the participating market participants.

4.2 Initiative scope

The initiative is intended to assess the feasibility of the Triparty Collateral Management platform and the co-existence of it with the current bilateral collateral management model followed by the SARB for refinancing operations, SAMOS and CLF. Should the TCM model be deemed feasible for implementation, market participants will have a binary choice –



continue using the existing collateral management processes followed by the SARB; or manage their collateral via the use of the TCM agent.

Following the feedback received from this position paper, a business case will be drafted for internal approval. Once the business case is approved the following actions will be taken:

- Develop the impact analysis for the SARB interface.
- Document the business requirements specifications (BRS).
- Develop the functional requirements specifications (FRS).
- Configure the SARB systems for the common TCM interface.
- Develop the business transitioning guideline and plan.

4.3 Stakeholders

- South African Reserve Bank
 - National Payment System Department
 - Financial Markets Department
 - Prudential Authority
 - Legal Services Department
- Financial Markets Liaison Group
- Financial Sector Conduct Authority
- Money Market Subcommitte
- Money Markets Working Committee
- Bonds Working Committee
- Settlement Services Financial Market Infrastructures (Central Securities Depositories in South Africa).

4.4 Identified market challenges

Following a desktop analysis as well as discussions with counterpart central and commercial banks, the following market challenges were identified (ISSA, Report on Collateral Managment: Best Practices of Collateral Management for Cleared and Bi-laterally Traded Products, 2014); (CGFS, Central bank operating frameworks and collateral markets, 2015):

- Existence of legal structures without any standardisation, particularly in the case of pledge versus transfer of title implementation.
- Most transactions are concluded on a bilateral basis and siloed across the market.



- Lack of system linkages to build and monitor an appropriate re-use chain across different exposures coverage activity.
- Manually intensive collateral movements based on standing instructions to custodians.
- Lengthy process of collateral re-calls in the market.
- Lack of comprehensive regulatory monitoring across exposures in the market.
- Discrepancy in the value of the underlying collateral value, resulting in disputes.
- Lack of standardisation of pricing when eligible unlisted securities are valued.

4.5 Expected benefits derived from TCM

The TCM offers a variety of benefits to collateral receivers, collateral givers and the market as a whole. These benefits are summarised below (ISSA, Report on Collateral Managment: Best Practices of Collateral Management for Cleared and Bi-laterally Traded Products, 2014); (CGFS, Central bank operating frameworks and collateral markets, 2015).

• Collateral receivers

- Efficient and accurate monitoring of credit exposure.
- Simplicity and ease of service through just one collateral management service for any kind of financial obligation/exposure for the participating entities.
- Asset safety through segregation of accounts.

• Collateral givers

- Efficient use of securities collateral compared to the relatively expensive use of cash collateral.
- Asset safety as pledges are marked the re-use of securities is fully tracked and prevention of disposal of assets ceded to a collateral receiver.
- Collateral optimisation across exposures.

• Market

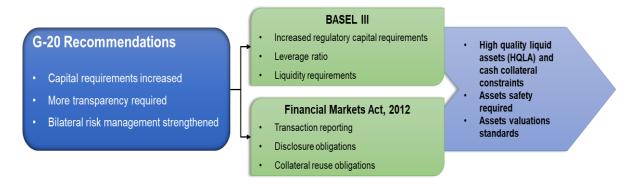
- Increased mobilisation of HQLAs.
- o Certainty of current size and location of collateral.
- Lead times required for collateral re-call are significantly reduced due to the audit trail of the re-use chain.
- Standardised method of monitoring and managing corporate actions on assets lodged as collateral.
- Market-wide collateral optimisation and standardised market operational window/timeline.



5 Regulatory impact

The regulatory requirements outlined below(5.1, 5.2), underscores the growing importance of collateral management in the international and local financial markets. The need to optimise the utilisation of collateral held by banks in order to adhere to new regulatory requirements has therefore increased dramatically since the sub-prime crises in 2008. The regulatory requirements indicated in (*Figure 1: Regulatory impact overview*) below have a direct bearing on the collateral requirements in the domestic financial market.

Figure 1: Regulatory impact overview



5.1 Basel III

5.1.1 Capital requirements

The stricter capital requirements and the application of a capital charge to manage potential valuation losses from credit deterioration (viz. credit value adjustment (CVA)), are expected to exacerbate the increased demand for qualifying high-quality capital by commercial banks (BCBS, 2015).

Basel III requires banks to fund themselves with 4.5% of common equity of risk-weighted assets (RWAs). It requires that a minimum common equity tier 1 (CET1) ratio of 4.5% be maintained by a bank (Mananga, 2012) (Malotana, 2014).

- **Common equity**: the amount that all shareholders have invested in a company. It also includes the value of the shares, retained earnings and paid-capital.
- **Risk-weighted assets**: comprise a bank's assets or off-balance-sheet exposures that are weighted according to their respective risk. The BCBS posits that this methodology ensures that:
 - o banks' different geographies can be easily compared;



- all the off-balance-sheet exposures can easily be accounted for in capital adequacy calculations; and
- o banks are not deferred from carrying low risk liquid assets in their books.
- **CET1 capital ratio:** CET 1 divided by RWAs, which must be at least 4.5%.

Basel III also makes provisions for additional capital buffers:

- **Mandatory capital protection buffer**: constitutes 2.5% of RWAs. As a result, the CET1 capital ratio would add up to a minimum of 7%.
- Discretionary business cycles negatively correlated buffer: creates an avenue for regulators to place an additional 2.5% of capital during high-credit growth periods. It is calculated within a range of 0% to 2.5% on the RWAs, with compliance of the CET1 capital.

5.1.2 Leverage ratio

The minimum leverage ratio introduced by Basel III has to be above 3%. The ratio is not risk based and calculated as CET 1 divided by the sum of all assets' exposures to non-balance sheet items (BCBS, 2015).

5.1.3 Liquidity requirements

Basel III regulations introduced the LCR as a means to ensure banks have adequate HQLAs to cover its total net cash outflows for a period of 30 days (BCBS, 2015).

Therefore, there is an increased emphasis on banks to ensure that sufficient liquidity is available during periods of financial distress.

5.2 Financial Markets Act

Section 74 (1)(ii) of the Financial Markets Act prescribes the code of conduct for the parties involved in securities financing transactions in the South African securities markets (Financial Markets Act 2012 (Act No. 19 of 2012)).

Securities financing transactions entail any transaction in which securities are used to borrow or lend funds. These include:

- Repurchase transactions
 - sell and buy back transaction
 - buy and sell back transaction



• Securities lending and borrowing transactions.

The code of conduct provides guiding principles for parties engaging in securities financing transactions, the scope of which covers:

- transaction reporting;
- disclosure obligations; and
- collateral reuse obligations.

6 **Proposed implementation model principles**

This section outlines the conceptual implementation guideline that the SARB will apply when evaluating the feasibility for building the collateral management capability using the TCM model (Abbasoglu, Kanik, & Mimir, 2019) (BNY, 2016) (Banque de France, 2019) (Becker, Ryan, Boyle, Maus, & Nichols, 2020) (Capel, 2015) (Castagna, 2014) (Choi, 2019) (ISSA, Report on Collateral Management: Cross Border Mobilisation of Collateral, 2016) (Naghiloo & Olivan*, 2017) (Zorn & Garcia, 2011).

6.1 Participation criteria for TCM agents linked to the SARB

This section sets out the minimum requirements a potential TCM agent/provider must meet to be considered for connectivity to the SARB collateral management system.

An approved TCM agent/provider becomes part of an ecosystem within which the SARB supports its subscribed market participants' liquidity and collateral requirements. It is therefore important to ensure a clear criterion is in place to provide a framework for allowing the provider to connect with the SARB. The TCM agent/provider must therefore:

- have subscribed market participants that account for at least 25% of the total collateral holdings with the SARB, across all the exposure types – viz. SAMOS, CLF, and repo;
- be able to provide the collateral management intelligence as outlined under section
 (6);
- provide an acceptable proposal to the SARB on how its own systems can integrate with the SARB system; and
- must have an acceptable disaster recovery capability in place to ensure business continuity.



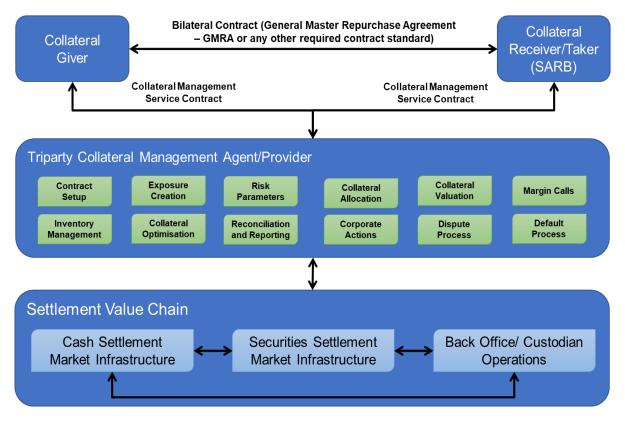
6.2 TCM process

It is important to have a clear understanding of what the TCM concept/model entails. Parties that require collateral management service for the exposure that exists between them and other market participants use a third-party provider who plays an agency role in the recording of the different exposures. The third-party provider carries out the management of the collateral covering the various exposures, throughout the lifecycle of the underlying transactions.

The management of collateral by the third-party provider constitutes daily mark-to-market of the collateral securities, automatic generation of margin calls for any variations in the value of the collateral securities, and intraday collateral optimisation through asset swaps or substitution. It also provides for counterparty credit risk management through the application of rules defined by the participants in terms of acceptable securities, conditions of market risk, valuation rates and concentration limits.

A TCM agent/provider will typically have connectivity to the securities and cash settlements market infrastructures of participants in order to ensure a seamless collateral management process.

Figure 2: TCM process overview

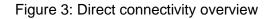


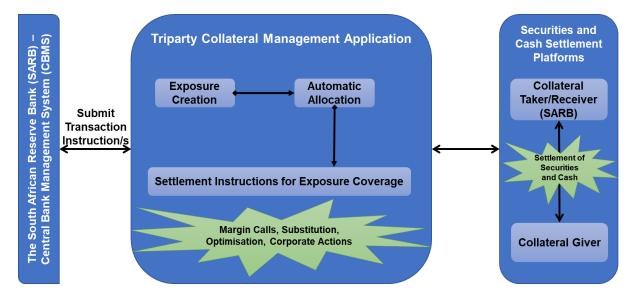
6.3 Connectivity

Connectivity entails the manner through which the SARB would be connected to the TCM agent/provider. Principally, there are two ways in which connectivity can be affected; either directly via a web interface or via the society for worldwide interbank financial telecommunication (SWIFT) interface.



6.3.1 Direct connectivity (web interface)





6.3.1.1 Considerations

The pros and cons to consider for the direct connectivity approach are as follows:

- Pros
 - Lower development investment cost.
 - Shorter time-to-market for development.
- Cons
 - Reconciliation and reporting integration required.
 - Higher security and resiliency services required.
 - Impact on the system integration testing cycle during market-wide developments/enhancements.
 - Data capture errors risk.
 - Additional artefact to the enterprise architecture (additional connection to manage).



6.3.2 SWIFT connectivity

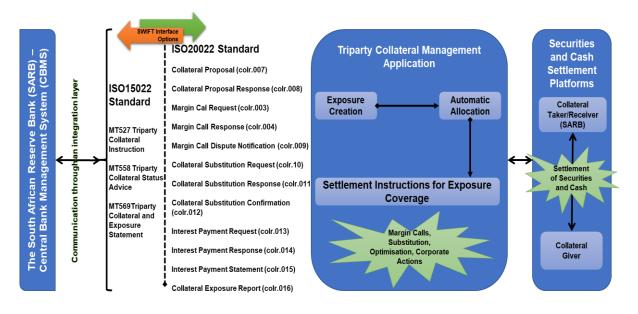


Figure 4: SWIFT connectivity overview

6.3.2.1 Considerations

The pros and cons to consider for the SWIFT connectivity approach are as follows:

- Pros:
 - Assurance on the security and resilience embedded in the SWIFT network.
- Cons:
 - The impact of transitioning from ISO 15022 to ISO 20022¹ on collateral management communications and ultimately the overall project development timeline.
 - Additional system maintenance burden.
 - Longer time-to-market for development.
 - Higher investment cost requirement for the development.
 - o Market readiness, particularly on the standardised interface design.

¹ The South African financial market plans to go live with ISO 20022 payment instructions by September 2022 and by 2025 all SWIFT messages should be ISO 20022 compliant.



6.4 Contract management and accounts structures

6.4.1 Contract structure

The contract structure entails the type of the contract that exists, viz.:

- **Pledge**: in this type of a contract the collateral assets are not moved to the account of the collateral receiver/taker, but locked and marked in the account of the collateral giver for the benefit of the collateral receiver.
- **Transfer of title**: in this type of a contract the collateral assets are moved to the account of the collateral receiver.

The contracts are also mapped to the basket of acceptable/eligible securities.

6.4.2 Account structure

The account structure entails the manner in which the account is mapped to the contracts. The SARB will use one-to-one account mapping for the various contracts comprising repo transactions, SAMOS and CLF.

6.5 Transaction lifecycle

This section outlines the collateral related processes to consider during the term of the transaction.

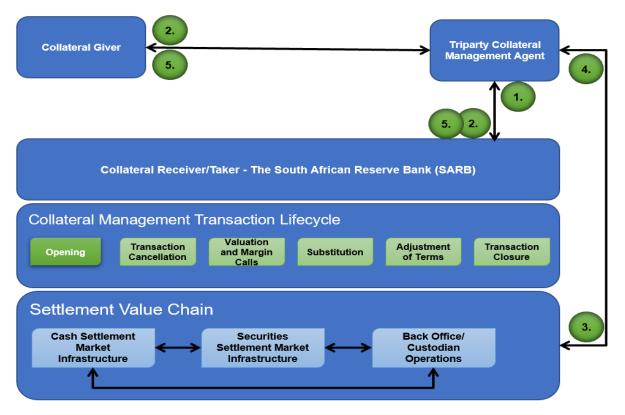
6.5.1 Transaction opening

Transaction opening entails the capturing of a new transaction. The amount of the transaction becomes the value of the exposure that is captured to reflect the credit exposure the SARB has and against which the respective counterparty must pledge assets as collateral.

The SARB unilaterally reports these exposures and therefore does not need to be matched by its counterparty. In the TCM model, the matching exposure transaction will be automatically created. Thereafter, the triparty collateralisation process will allocate the acceptable collateral to cover the exposure.

(*Figure 5: Transaction opening process*) below, depicts a high-level overview of the transaction flow for a straight-through process of initiating an exposure as well as its collateralisation.





Narrative

| Pre-conditions | Process |
|-----------------------------------------------|-----------------------------------------------|
| • Bilateral contract is in place and on- | • The SARB unilaterally reports the exposure |
| boarding is completed between the SARB | Exposure status notification |
| and the counterparty (viz. collateral giver.) | Collateral allocation proposal |
| The collateral management service | Cash/securities settlement confirmation |
| contract is in place and on-boarding is | notification |
| complete for all the parties | • Exposure coverage confirmation notification |
| Loan/repurchase allocation confirmed | |
| (auction or any advances terms have been | |
| completed) | |
| • The opening exposure transaction has | |
| been reported and successfully accepted | |
| by the TCM Agent. | |



6.5.2 Transaction cancellation

The cancellation of an exposure entails the ability of counterparties to cancel a transaction. This process will be followed to correctly represent the contractual intent of the original transaction. Transaction cancellation is therefore an agreed upon re-capture of the exposure in the event that there is any form of disagreement on the exposure details captured or the counterparty decides not to take up their allocation anymore.

In such event, the SARB will process the instruction for the cancellation. The aim is to correctly reflect that the cancellation entry is the discontinuance of the transaction and not its closure/maturity. It should therefore be reflected as such, for audit purposes. (*Figure 6: Transaction cancellation process*) below, depicts the cancellation process.

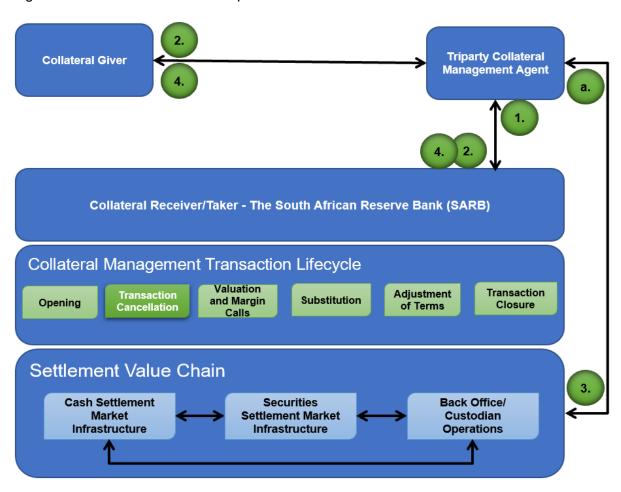


Figure 6: Transaction cancellation process



Narrative

| Pre-conditions | Process | |
|----------------------------------------------|----------------------------------------------|--|
| Bilateral contract is in place and on- | • The SARB will capture the cancellation for | |
| boarding is completed between the SARB | the reported exposure | |
| and the counterparty (viz. collateral giver) | • Exposure cancellation status notification | |
| The collateral management service | • Collateral withdrawal proposal, if already | |
| contract is in place and on-boarding is | settled | |
| complete for all the parties | Cash/securities withdrawal settlement | |
| Loan/repurchase allocation confirmed | confirmation notification | |
| (auction or any advances terms have | • Exposure cancellation confirmation | |
| been completed) | notification | |
| The opening exposure transaction was | | |
| reported and successfully accepted by | | |
| the TCM Agent. | | |
| 6.5.3 Valuation and margin calls | I | |

6.5.3 Valuation and margin calls

6.5.3.1 Valuation

Valuation constitutes the mark-to-market process to determine whether the value of the securities pledged as collateral adequately covers the credit exposure the SARB has against a counterparty.

The SARB currently publishes rates three times a day for government bonds, SARB debentures and Treasury bills. These rates are published at pre-defined time intervals and are used for the valuation of collateral pledged with the SARB across all the facilities. In a triparty environment, collateral valuations and margin calculations are envisaged to take place each time the valuation rates are updated.

6.5.3.2 Margin calls

Margin calls emanate from collateral valuations reflecting either a deficit or excess in the value of the collateral pledged with the SARB when compared to the value of the credit exposure the SARB has against a counterparty. Excess value should be returned to the collateral giver in the case of collateral surplus, and to obtain additional collateral from the collateral giver in the case there is a collateral shortage. Margin calls are subject to a tolerance/threshold value or trigger amounts to avoid calls being made every time the valuation rates are updated. The tolerance/threshold is currently set at R5 million.



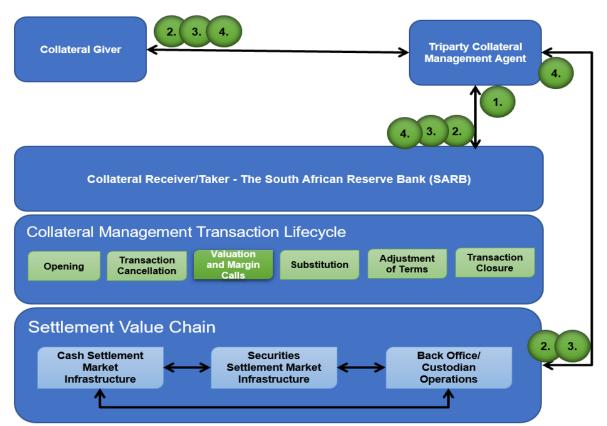
6.5.3.2.1 Excess margin

This arises in the case the value of the collateral pledged with the SARB exceeds the defined adequate value for credit exposure coverage, over and above the tolerance/threshold value. Therefore, the SARB will return this excess (the value of collateral the SARB is over-collateralised with) to the collateral giver.

6.5.3.2.2 Margin deficit

This arises in the event the value of the collateral pledged with the SARB is less than the required value for covering the credit exposure the SARB has with a counterparty. Should the value of the deficit exceed the set tolerance/threshold value, the collateral giver must top-up the shortfall either by transferring additional eligible securities or by making a cash deposit.

Figure 7: Valuation and margin calls process



Narrative

| Pre-conditions | Process |
|---------------------------------------------|----------------------------------------------------------------------|
| • The transaction must exist and be settled | • The SARB provides the rates to the TCM agent at a defined interval |



| • | The TCM Agent performs mark-to-market |
|---|------------------------------------------------|
| | and requests margin top-up request, for |
| | margin deficit |
| • | The TCM Agent performs mark-to-market |
| | and requests collateral return, for excess |
| | margin |
| • | Margin top-up/return confirmation notification |

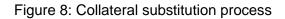
6.5.4 Substitution of collateral

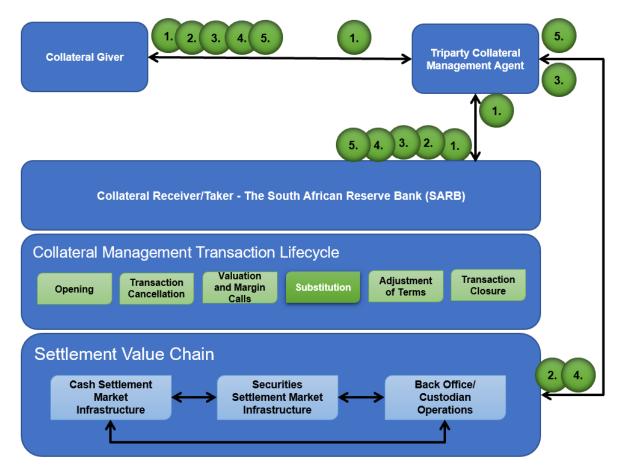
Substitution is the process through which the SARB is provided with replacement collateral assets, whenever the need arises, for the collateral assets lodged by a counterparty to be withdrawn. There are a number of processes that trigger substitution:

- **Concentration limit breach**: The SARB will define the level of exposure acceptable for a particular collateral asset and at any point this acceptable level of exposure is exceeded, the substitution process will be triggered to ensure the excess is corrected. The limits will, among other things, be applied at securities issuer level, at security type level, at issuer's industry/sector level and at credit rating level.
- Sale/withdrawal of pledged collateral: Allows for the collateral giver to obtain access to the specific collateral it has lodged with the SARB, in exchange for other acceptable collateral. The SARB will be temporarily over-collateralised due to the process' sequence of firstly accepting the replacement collateral before releasing the collateral requested by the collateral giver.
- **Unacceptable collateral**: Substitution will also be triggered for the SARB in the case any collateral assets becoming unacceptable. The events that could lead to a lodged collateral asset to no longer being regarded as eligible by the SARB may include:
 - Amendments to the basket of acceptable securities.
 - The collateral asset may have a corporate action pending, whether coupon payment and/or redemption.
 - A change of the acceptable credit rating for the collateral asset.

The model in (*Figure 8: Collateral substitution process*) below, depicts the substitution process.







Narrative

| Pre-conditions | Process |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| • The transaction must exist and be settled | The substitution request is triggered Replacement collateral allocation proposal Replacement collateral confirmation notification Collateral withdrawal proposal Collateral withdrawal confirmation notification |

6.5.5 Adjustment to the terms of the transaction

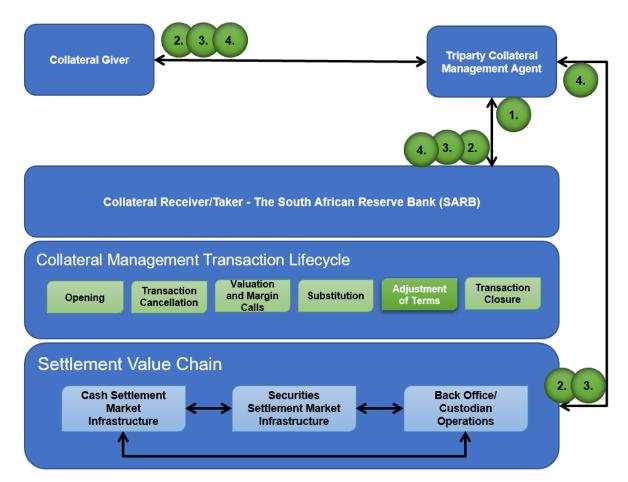
In certain circumstances, the need may arise for the terms of the transaction to be amended during its lifecycle. The terms that can be amended are:



- value of the exposure;
- pricing rate;
- closing/maturing value for the repurchase transaction; and
- date on which the transaction closes/matures.

(Figure 9: Transaction terms amendment process) below, depicts the process to be followed when transaction terms are amended.

Figure 9: Transaction terms amendment process



Narrative

| Pre-conditions | Process |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| • The transaction must exist and be settled | • The SARB and the counterparty may submit an amendment to the terms of the transaction, following reaching an agreement to do so |



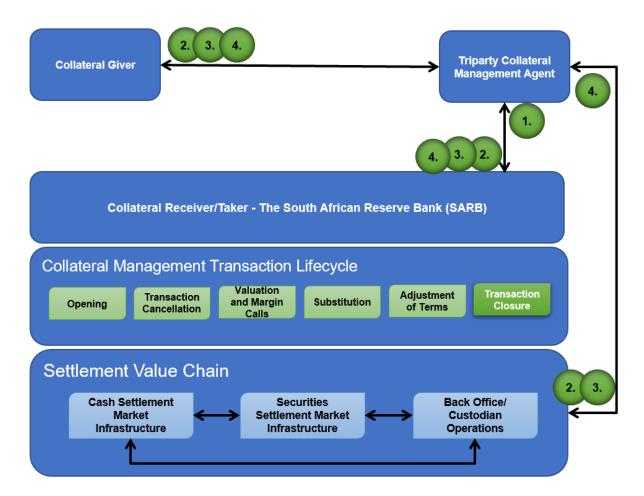
| Pre-conditions | Process |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | The TCM Agent performs mark-to-market and requests margin top-up request, for margin deficit The TCM Agent performs mark-to-market |
| | merrow Agent performs marked-market and requests collateral return, for excess margin Margin top-up/return confirmation notification |

6.5.6 Transaction closure

The transaction closure is the process through which the transaction between the SARB and a counterparty matures. The SARB will then return/release the collateral assets held and the counterparty will repay the loan or repurchase the securities.







Narrative

| Pre-conditions | Process | |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| • The transaction must exist and be settled | The TCM Agent automatically triggers the transaction maturity instructions Transaction maturity notification Collateral assets and cash returns process for settlement Transaction maturity completion confirmation notification | |



6.6 Corporate actions

Corporate actions entail the activity by an issuer of a security to either make a coupon/interest payment and/or redemption on maturity of the security.

6.6.1 Redemption

In the case of a redemption, the SARB will require the counterparty to substitute the maturing security with an acceptable replacement collateral asset. This substitution will be sought two days before the last day of registration/trade for bond securities and two days before the record date for money market securities.

6.6.2 Coupon

In the case of coupon interest, the SARB is considering two options based on the contract structure, as follows.

• Pledge contract structure

Due to the fact that there is no movement of assets in this structure, the SARB will not seek substitution of securities since the collateral assets are just locked and marked in the account of the collateral giver. The income entitlement will be reflected directly in that account for the benefit of the collateral giver.

• Transfer of title (or out and out cession) contract structure

In this case, the SARB may opt for any one of the following:

- Seek substitution: This will be performed in line with the terms for corporate action redemptions. However, the SARB is considering the impact this action could have on the collateral giver since it would adversely affect overall collateral assets available for allocation.
- Will not seek substitution: This process will require the SARB to develop a process for handling reconciliation and compensation to the collateral givers, as well as transparency of tax on the income received.

Note: At present, the SARB does not allow the use of any collateral assets that matures during the life cycle of the transaction.



6.7 Re-hypothecation/re-use of collateral

The SARB does not reuse any securities lodged by clients for refinancing operations conducted, SAMOS or CLF.

6.8 Market operational windows alignment

The TCM model requires a robust settlement landscape to ensure that the envisaged efficiencies are realised. It is therefore important to be cognisant of the securities settlement infrastructure, cash settlement infrastructure, back-office processes and securities exchanges' operational requirements.

An alignment between the settlement timelines for the bond and money market collateral settlement is therefore a critical aspect. Figure 11 below provides a high-level view of the current settlement timelines for further discussion.

The discussion here would entail the triparty collateral management process requirements with post-trade market participants (viz. central securities depository participants and the central securities depositories) and contribute towards a settlement model proposal that would fit the current model and the supporting settlement processes.





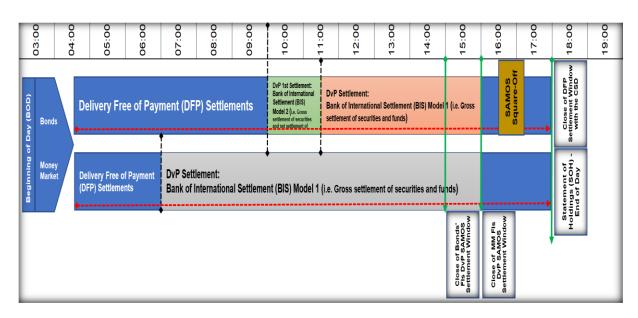


Figure 11: Daily market settlement windows

6.9 Risk baskets

In order to ensure that acceptable collateral assets are pledged and optimally maintained, a mechanism of risk baskets will be utilised. The SARB will be able to make amendments to the parameters of these baskets on an ad-hoc basis, following risk management guidelines. The variables that will be used are covered below.

6.9.1 Haircuts

In securities financing transactions, the lender will be exposed to the borrower's risk of default for a 'market-contingent' credit exposure. Therefore, the SARB, as a lender, will seek to cover this risk by defining the maximum liquidity assistance/loan it can advance to a counterparty (borrower) for a given market value of collateral assets. The haircut is the difference between the current market value of an asset and the value ascribed to that asset for purposes of loan collateral. The haircut set by the SARB reflects the perceived risk of the asset falling in value in an immediate cash sale or liquidation. For example, for a 15% haircut on a R100 funding requirement, the SARB will require R115 worth of collateral assets. Haircuts can be set according to the type of instrument, maturity period and/or credit quality rating. These ratings will be based on the composite definitions as per Moody's, Fitch and Standard & Poor.



6.9.2 Concentration limits

Concentration limits entail the definition of the exposure level up to which the SARB is prepared to accept a specific type of security as collateral for refinancing operations, SAMOS, and CLF. Concentration risk provides a threshold beyond which the SARB will not accept the specific assets as collateral. These thresholds may be defined at an industry, issuer, volatility, liquidity, ratings and/or instrument/security type level. The breach of any of these thresholds will trigger substitution process in order to correct the optimal collateral position. *Note: the SARB will maintain the current policy in place, the further application of these limits will be considered in the case the SARB extends the eligibility list to include comparatively lower quality assets than it currently accepts.*

7 Dispute/default process

7.1 Dispute process

A dispute, in the context of collateral management, entails a disagreement between the collateral giver and collateral receiver about the price/value applied on the securities lodged as collateral. This would be raised in the case a margin call is made and the party against whom this call is raised is not in agreement with it, in whole or part thereof. The speedy resolution of these disputes is therefore essential for seamless collateral optimisation.

The SARB views this process to be highly aided by the TCM model as it uses standardised pricing, thereby reducing the instances for collateral margin call disputes.

7.2 Default process

A default process entails the failure of one party to honour its obligation to the other party, over a set time period. The SARB will therefore submit a default notification to a counterparty that is not able to meet its obligation for a margin call when it falls due. The default process is guided by the legal agreements which govern the transaction.

8 Delivery approach

The key business drivers for this initiative are to enhance efficiencies in the local financial market and the fact that it is also regarded as a market imperative.



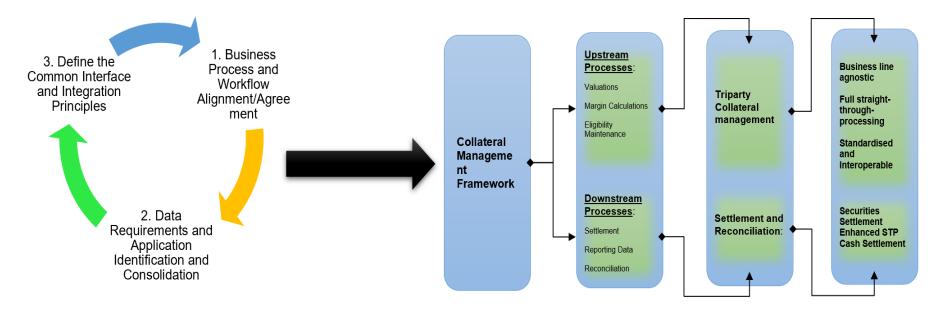
Figure 12: Basis for the business case

| Business driver | Option |
|-------------------|--------|
| | |
| Efficiency | Х |
| Cost | |
| Risk | |
| Market imperative | Х |

(Figure 12: Basis for the business case) depicts the approach through which the initiative will be delivered. The feedback on this position paper will be used to formulate the collateral management framework. The final version of the framework, as agreed to by the various stakeholders, will guide the development of the business and functional requirements specifications, as well as the architecture for the solution.



Figure 13: Initiative delivery approach process





8.1 Flight plan

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The high-level flight plan for the initiative is presented below, and it is envisaged that the business case will be presented for approval by the Governors' Executive Committee on 22 November 2021. Once approved, the system development project will be initiated, and the project delivery timelines will be communicated once the project plan is finalised.

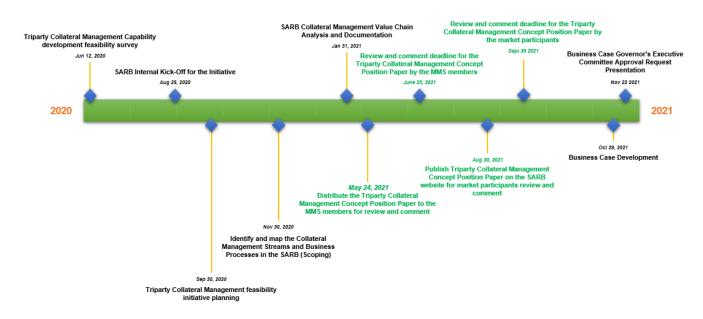


Figure 14: High-level flight plan



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