

Principles for Financial Market Infrastructures (PFMI)

Public Disclosure for the Southern African Development Community

Real-Time Gross Settlement (SADC-RTGS) System

Self-Assessment 2022

March 2023



| | |
|---|---|
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This is the third issue of the SADC-RTGS PFMI public disclosure. Data may include own calculations made for the purposes of this publication.

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Abbreviations

| | |
|---------|--|
| ACH | automated clearing house |
| BA | Banking Association |
| BCP | business continuity plan |
| BIS | Bank for International Settlements |
| Board | Board of Directors |
| BREC | Board Risk and Ethics Committee |
| BSTD | Business Solutions and Technology Department |
| CBPL | continuous batch processing line |
| CCBG | Committee of Central Bank Governors |
| CCP | central counterparty |
| CISU | Cyber and Information Security risk Unit of BSTD |
| COMFI | Committee of Ministers for Finance and Investment |
| CPL | continuous processing line |
| CPSS | Committee on Payment and Settlement Systems |
| CPMI | Committee on Payments and Market Infrastructures |
| CSC | Customer Support Centre |
| CSD | central securities depository |
| DR | disaster recovery |
| FIP | Protocol on Finance and Investment |
| FMI | financial market infrastructure |
| FSCF | Financial Sector Contingency Forum |
| GEC | Governors' Executive Committee |
| GL | general ledger |
| GUI | graphical user interface |
| IAD | Internal Audit Department |
| ICT | information and communications technology |
| IOSCO | International Organization of Securities Commissions |
| ISO | International Organization for Standardization |
| LSD | Legal Services Department |
| NACH | national automated clearing house |
| NFNB | Namibian First National Bank |
| NKP | national key point |
| NPS | national payment system |
| NPS Act | National Payment System Act 78 of 1998 |



| | |
|------------|---|
| NPSD | National Payment System Department |
| PASA | Payments Association of South Africa |
| PFMI | Principles for Financial Market Infrastructures |
| PSMB | payment system management body |
| PSOC | Payment System Oversight Committee |
| RCSO | regional clearing and settlement system operator |
| Remco | Remuneration Committee |
| RMC | Risk Management Committee |
| RMCD | Risk Management and Compliance Department |
| RPS | regional payment scheme |
| RTGS | Real-Time Gross Settlement |
| RTL | real-time line |
| SADC | Southern African Development Community |
| SFA | strategic focus area |
| SAMOS | South African Multiple Option Settlement (system) |
| SARB | South African Reserve Bank |
| SARB Act | South African Reserve Bank Act 90 of 1989, as amended |
| SARB Group | South African Reserve Bank Group |
| SIRESS | SADC Integrated Regional Electronic Settlement System |
| SLA | service level agreement |
| SSPG | Settlement System Participant Group |
| SSS | security settlement system |
| SUG | SADC-RTGS User Group |
| SWIFT | Society for Worldwide Interbank Financial Telecommunication |
| TR | trade repository |
| ZAR | South African rand |



Glossary

| Term | Definition |
|---|---|
| beneficiary participant | A SADC-RTGS participant whose account in the SADC-RTGS will be credited in fulfilment of one or more settlement instructions received from a paying participant, and that will receive a settlement notification and thereby incur an obligation to credit the account of the beneficiary identified in the payment instruction to which the settlement notification |
| clearing and settlement system | The cross-border clearing and settlement environment in the SADC region. |
| collateral | A participant's liquid assets recognised by the SARB as eligible assets for the purpose of the provision of loans. |
| financial market infrastructure | A multilateral system among participating institutions, including the operator of the system, which is used for the clearing, settling and recording of payments, securities, derivatives and other financial transactions. |
| Financial Sector Contingency Forum | A national coordination body that identifies potential threats of a systemic nature that may adversely affect the stability of the South African financial sector, tasked with developing and coordinating appropriate plans, mechanisms and structures to mitigate these threats and to manage systemic crises. |
| haircut | The valuation percentage applicable to each type of collateral, largely based on the liquidity and price volatility of the underlying security. |
| immediate settlement agreement | The arrangement governing the clearing of cash for immediate settlement between parties which is constituted by this bilateral contractual relationship (not being a partnership) between the parties. It includes all such arrangements between each party and each other participant governing the clearing of credit payment instructions for immediate settlement in accordance with the terms thereof. |
| participant | A SADC central bank or any financial institution (i.e. bank in SADC that is authorised by the central bank in the country of its origin to be a participant in both its domestic real-time gross settlement system and in the SADC-RTGS) or a non-bank that is authorised by the central bank in the country of its origin to provide cross-border payment services and to be a participant in the SADC-RTGS. |
| payer participant | A paying participant with a settlement obligation whose settlement account will be debited by the SARB in fulfilment of one or more settlement instructions received. |
| payment obligation | The indebtedness that one party owes to another because of the clearing of one or more payment instructions. |
| Payments Association of South Africa (PASA) | A payment system management body recognised by the SARB. |
| Payments Association of South Africa (PASA) Executive | The Chief Executive Officer (CEO) appointed by the PASA Council, and any other person appointed by the CEO to the PASA Executive. |
| regional clearing and settlement system operator (RCSO) | A person appointed by SADC-RTGS participants and subsequently approved and authorised by the SADC PSMB to provide clearing to SADC-RTGS participants in at least two SADC countries. |



| Term | Definition |
|---|--|
| regional payment scheme (RPS) | A clearing arrangement developed for a payment instrument used in the SADC region that binds SADC-RTGS participants to transact in terms of the Regional Rule Book of such a scheme. |
| settlement | The final and irrevocable discharge of a settlement obligation, owed by one party to another pursuant to a settlement instruction, which has been effected in money or by means of entries passed in the settlement accounts of the relevant parties through the settlement system. |
| settlement account | An account maintained by a SADC-RTGS participant with the SARB (as the central bank) for settlement purposes. |
| settlement agreement | The agreement that governs a settlement to be signed and adhered to by all SADC-RTGS participants. |
| settlement bank | A SADC-RTGS settlement system participant. |
| settlement cycle day | The value date applicable to payment obligations settled or still to be settled in any settlement cycle. |
| settlement failure | In relation to a SADC-RTGS participant, the failure by such a SADC-RTGS participant to fulfil its settlement obligations to one or more of the other SADC-RTGS participants within a reasonable period of time, as determined by the SADC-RTGS operator, but in any event by no later than the end of the settlement cycle during which the relevant settlement instruction was given and in respect of which the SADC-RTGS operator has declared it to be a settlement failure and has notified the SADC PSMB and SADC PSOC accordingly, and (if so required) the selected option to manage a settlement failure identified in the settlement agreement for the applicable RPS implemented by the SADC-RTGS operator. |
| settlement instruction | An instruction given to the SADC-RTGS operator by a SADC-RTGS participant or by an RCSO on behalf of a SADC-RTGS participant and under its mandate, to effect the settlement of one or more payment obligations or to discharge any other obligation of one SADC-RTGS participant to another SADC-RTGS participant. |
| settlement rules | The settlement rules and procedures (if any) contained in the settlement agreement as well as those drafted and recommended by the SADC PSMB and approved by the SADC PSOC, and such further settlement rules as may be prescribed by the SADC PSOC. |
| South African Multiple Option Settlement (SAMOS) system | A system operated by the SARB, or any other settlement system adopted by the SARB in replacement thereof. |
| South African Reserve Bank (SARB) | The central bank of South Africa, as defined in sections 1 and 2 of the South African Reserve Bank Act 90 of 1989, as amended. |



Preface

The South African Reserve Bank (SARB), in its role as the operator of the Southern African Development Community (SADC) Real-Time Gross Settlement (RTGS) system, which facilitates the settlement of cross-border transactions in the SADC region, publishes this Principles for Financial Market Infrastructures (PFMI) disclosure framework based on the self-assessment that was conducted in 2022.

The self-assessment was conducted against the PFMI issued by the Committee on Payments and Market Infrastructures (CPMI) – previously known as the Committee on Payment and Settlement Systems (CPSS) – of the Bank for International Settlements (BIS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) in a publication titled *Principles for financial market infrastructures* published in April 2012.

The self-assessment, and therefore this disclosure, outlines the observance of the PFMI based on the status of the operations of the SADC-RTGS as at 31 March 2022.

This report has been compiled in line with the disclosure framework outlined in Principle 23 of the PFMI. As the process relating to compliance with the PFMI and adherence to the disclosure framework matures, the SARB expects to achieve full transparency in discharging its obligations for the benefit of all stakeholders.

The next self-assessment will be undertaken in 2024. A revised report will then be published to disclose the updated status of compliance with the PFMI.

National Payment System Department
South African Reserve Bank

March 2023

1. Executive summary

The purpose of this document is to provide relevant disclosure to the markets which the financial market infrastructure (FMI) serves on the measures used by the operator of the Southern African Development Community (SADC) Real-Time Gross Settlement (RTGS) system (referred as SADC-RTGS). The SADC-RTGS operator manages the risks to which the SADC-RTGS and its participants are exposed as a regional cross-border settlement system.

This disclosure document was prepared by the South African Reserve Bank (SARB) as the SADC-RTGS operator. The self-assessment includes a description of SADC-RTGS operations and describes how the SADC-RTGS operator, as an FMI, complies with each principle applicable to the FMI. This is the third PFMI disclosure framework the SARB has completed for the SADC-RTGS following the previous disclosure that was published on 31 March 2020.

In April 2012, the Committee on Payment and Settlement Systems (CPSS) – now referred to as the Committee on Payments and Market Infrastructures (CPMI)¹ – of the Bank for International Settlements (BIS) as well as the Technical Committee of the International Organization of Securities Commissions (IOSCO) published the *Principles for financial market infrastructures* (collectively referred to as the ‘PFMI’ and each principle referred to as a ‘Principle’).²

The PFMI are designed to ensure that the infrastructure supporting global financial markets is robust and able to withstand financial shocks.³ The PFMI apply to all systemically important payment systems. Since 10 September 2013, the SARB has endorsed the PFMI as the risk management standard for systemically important FMIs in South Africa.⁴

¹ The Committee on Payment and Settlement Systems (CPSS) changed its name to the Committee on Payments and Market Infrastructures (CPMI) on 1 September 2014.

² The Principles are international standards for the risk management of FMIs; see http://www.bis.org/cpmi/info_pfmi.htm. For more information covering the application of the PFMI for FMIs operated by central banks, see <https://www.bis.org/cpmi/publ/d130.htm>

³ As defined by the BIS and IOSCO, an FMI is ‘a multilateral system among participating institutions, including the operator of the system, that is used for the purposes of clearing, settling or recording payments, securities, derivatives or other financial transactions’.

⁴ See position paper NPS 01/2013 titled ‘Position paper confirming the South African Reserve Bank’s support for the Principles for Financial Market Infrastructures published by the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions’, 10 September 2013, available on the SARB website at www.resbank.co.za under www.resbank.co.za/en/home/publications/Papers/position-papers



The SADC-RTGS was implemented on 22 July 2013. It is designed based on the South African domestic RTGS system, the South African Multiple Option Settlement (SAMOS) system. The SADC-RTGS is a cross-border settlement system that is operated by the SARB, as appointed by the SADC member central banks participating in the SADC-RTGS.

Participants in the SADC-RTGS include central banks and financial institutions, that is, banks in the SADC region that are authorised by their respective central bank to participate in their domestic settlement system in that country and in SADC-RTGS, and non-banks that are authorised by the central bank in the country of their origin to provide cross-border payment services and to be a participant in the SADC-RTGS .

The FMI derives its mandate to provide services in terms of stakeholders' agreements, as executed by the SARB and the participating SADC central banks. The types of risks that arise or are borne by the FMI include operational risk, settlement risk, legal risk, liquidity risk and reputational risk. Risk management is conducted in line with the SARB Group Risk Management Policy.

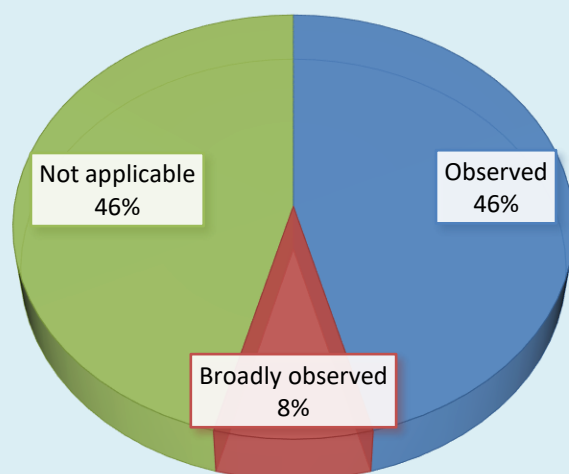
Table 1: Summary of the self-assessment against the PFMI

| Assessment category | Assessment of Principle |
|----------------------------|---|
| Observed | 1, 2, 3, 7, 8, 9, 13, 15, 18, 22, 23 |
| Broadly observed | 17, 21 |
| Partly observed | |
| Not observed | |
| Not applicable | 4, 5, 6, 10, 11, 12, 14, 16, 19, 20, 24 |

Figure 1: Assessment of Principle per category



ASSESSMENT OF PRINCIPLES 2022



2. Summary of major changes since the previous update of the disclosure

- 2.1 Regarding the regulatory framework, rules of participation that impact the operation of the SADC-RTGS have been amended to include participation by the non-banks as approved by SADC PSOC.
- 2.2 The Governor of the SARB approved the revocation of the old name of the system; the 'Southern African Development Community (SADC) Integrated Regional Electronic Settlement System (SIRESS)'; and the designation of the system to 'Southern African Development Community (SADC) Real-Time Gross Settlement system (SADC-RTGS)'.
- 2.3 Changes made to the SADC-RTGS system functionality since the previous disclosure includes the following:
 - a. Compliance with the SAMOS system modernisation project and version 8 requirements, including the funding and return of funds between the two RTGS systems.
 - b. Implementation of version 4.2 Business operational enhancements, covering:
 - i. Inclusion of the multicurrency settlement capability.
 - ii. a settlement schedule;
 - iii. a single transaction account;
 - iv. a global payments innovation (GPI) tracker;



- v. an improvement in the health check maintenance routine between the core and web application;
- vi. an improvement in the communication method between the core and web application;
- vii. dashboard and analytics; and
- viii. reporting and business intelligence.



Table 2: Notable events for SADC-RTGS

| Event number | Date | Description |
|--------------|-----------|---|
| 1 | May-09 | CCBG approves proceeding with a SADC regional settlement system. |
| 2 | Oct-10 | CCBG approves to undertake the Proof of Concept (POC) in the CMA |
| 3 | Apr-13 | CCBG approves the legal agreements. CMA Governors sign the |
| 4 | Jul-13 | SADC-RTGS goes live in Lesotho, Namibia, South Africa, and Swaziland. |
| 5 | Jul-13 | The first SADC-RTGS customer payment is settled. |
| 6 | Apr-14 | SADC-RTGS Phase II goes live in Malawi, Tanzania and Zimbabwe. |
| 7 | Sep-14 | SADC-RTGS Phase III goes live in Mauritius and Zambia. |
| 8 | Oct-14 | The SADC-RTGS settlement schedule is extended to 16:00. |
| 9 | 29-Apr-15 | R1 trillion is settled from inception. |
| 10 | Sep-15 | A peak of R99 billion is reached. |
| 11 | Sep-15 | Batch settlement functionality is implemented |
| 12 | Oct-15 | A peak of 25 000 transactions is reached. |
| 13 | Nov-15 | SADC-RTGS Version 3.0 is implemented. |
| 14 | Nov-15 | SADC-RTGSWeb is implemented. |
| 15 | 06-Apr-16 | R2 trillion is settled from inception. |
| 16 | Jul-16 | The Seychelles goes live. |
| 17 | Oct-16 | Angola, Botswana, and Mozambique go live. |
| 18 | Nov-16 | The Democratic Republic of Congo goes live. |
| 19 | Nov-16 | A peak of R104 billion is reached. |
| 20 | 18-Nov-16 | SADC-RTGS Version 4.0 is implemented. |
| 21 | Dec-16 | A peak of R108 billion is reached. |
| 22 | Mar-17 | A peak of R109 billion is reached. |
| 23 | Mar-17 | A peak of 27 000 transactions is reached. |
| 24 | Mar-17 | R3 trillion is settled from inception. |
| 25 | Aug-17 | A peak of R120 billion is reached. |
| 26 | Aug-17 | A peak of 27 500 transactions is reached. |
| 27 | Aug-17 | SADC-RTGS Version 4.1 is implemented. |
| 28 | Oct-17 | A peak of 28 800 transactions is reached. |
| 29 | Nov-17 | A peak of 30 400 transactions is reached. |
| 30 | Dec-17 | R4 trillion is settled from inception. |
| 31 | Feb-18 | A total of 1 million transactions is settled. |
| 32 | Jul-18 | SADC-RTGS turns five years old. |
| 33 | Oct-18 | R5 trillion is settled from inception. |
| 34 | Jul-19 | R6 trillion is settled from inception. |
| 35 | Oct-19 | A peak of 32 976 transactions is reached. |
| 36 | May-20 | R7 trillion is settled from inception. |
| 37 | Feb-21 | R8 trillion is settled from inception. |
| 38 | Mar-21 | A peak of 33 079 transactions is reached. |
| 39 | Mar-21 | A peak of R132 billion is reached. |
| 40 | Nov-21 | A peak 34 374 transactions is reached. |
| 41 | Dec-21 | A peak 35 472 transactions is reached. |
| 42 | Dec-21 | A peak 133 billion is settled. |
| 43 | Dec-21 | R9 trillion is settled from inception. |
| 44 | Mar-22 | A peak 38 564 transactions is reached. |
| 45 | Mar-22 | A peak of 146 billion is reached. |



3. General background on the FMI

3.1 General description of the FMI and the market it serves.

The regional cross-border RTGS system in the SADC region is called the SADC-RTGS. The SADC-RTGS is an automated interbank settlement system operated by the SARB, as appointed by the participating SADC central banks to settle their obligations and payments on an immediate, real-time basis in the region. The SADC-RTGS settles on a prefunded basis. It has been enhanced to be a multiple-currency settlement system, but currently still settles in South African rand (ZAR) only.

The SADC-RTGS settles single settlement instructions between participating banks. The SADC-RTGS provides three settlement options to banks, namely the real-time line (RTL), continuous processing line (CPL) and continuous batch processing line (CBPL). Transactions are settled as a single or batched interbank settlement instruction arising from either customers or retail payments (e.g., electronic funds transfer or EFT) clearing.

The following graphs depict basic data and performance statistics on the services and operations of the SADC-RTGS up to March 2022:



Figure 2: Settlement values – July 2013 to March 2022

Total transactions amount

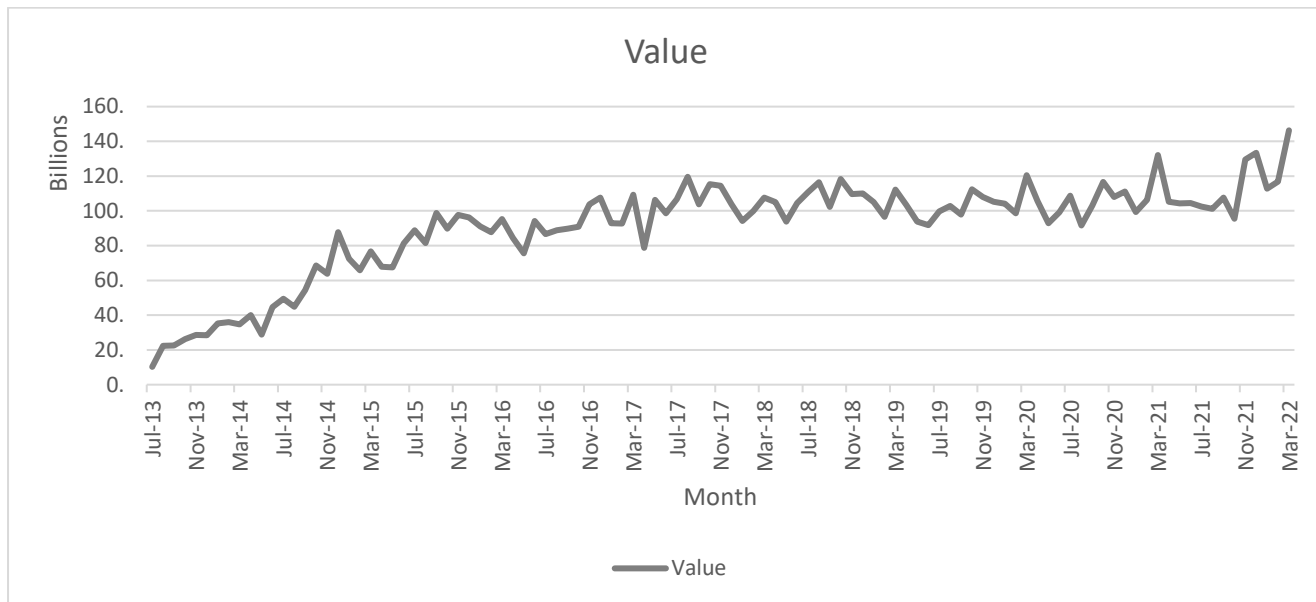


Figure 3: Settlement volumes – July 2013 to March 2022

Total number of transactions

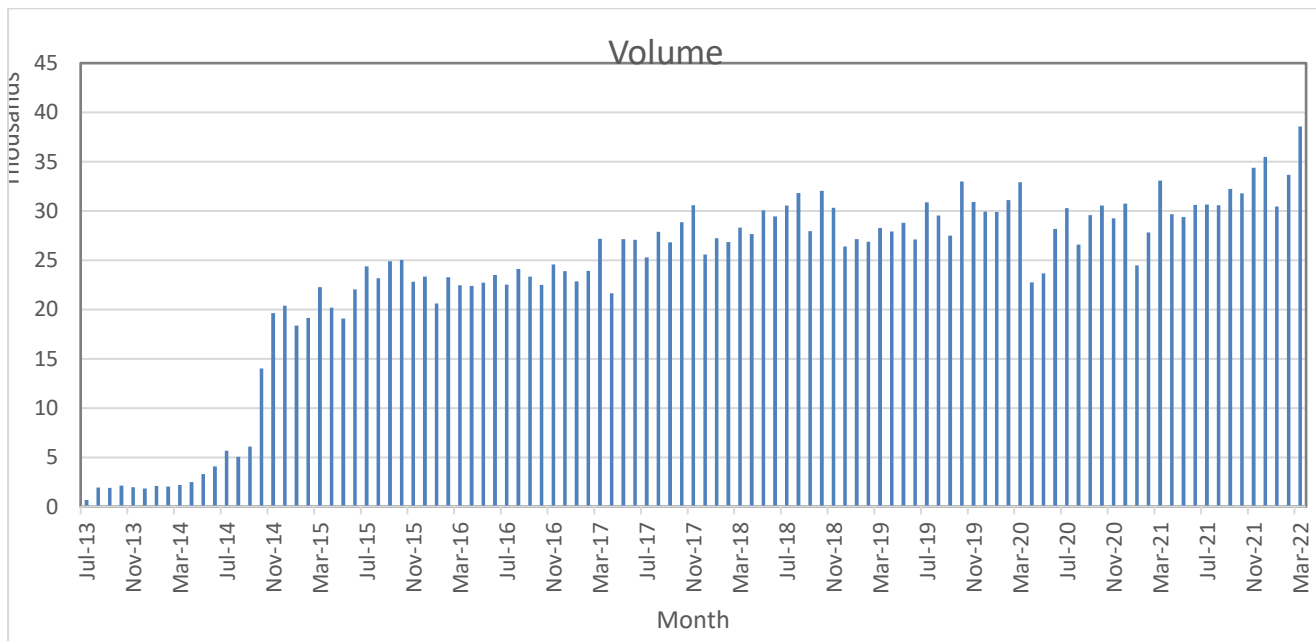


Figure 4: Combined volumes and values – July 2013 to March 2022

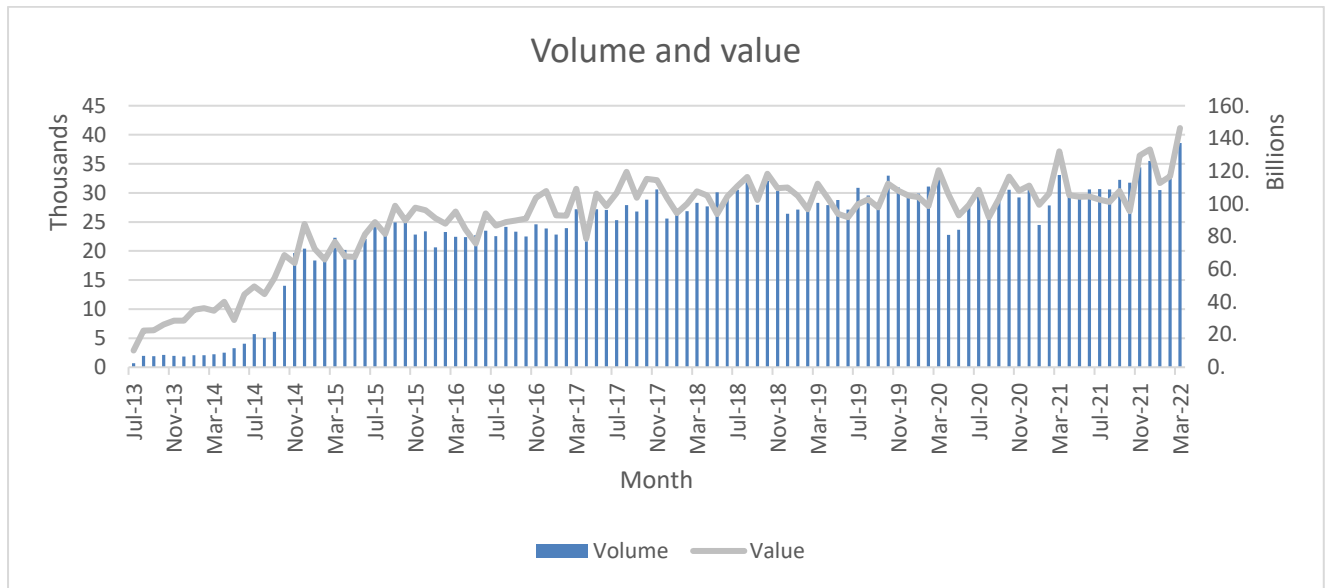


Table 3: Combined volumes and values – year on year

| Year | Volume | Value |
|--------------------|------------------|------------------------------|
| 2013 | 10,481 | 138,269,293,997.33 |
| 2014 | 87,127 | 588,091,647,560.41 |
| 2015 | 264,816 | 984,240,012,465.04 |
| 2016 | 275,974 | 1,095,928,160,436.25 |
| 2017 | 314,862 | 1,241,711,390,214.91 |
| 2018 | 348,720 | 1,272,542,251,650.31 |
| 2019 | 347,850 | 1,228,662,089,155.60 |
| 2020 | 345,525 | 1,260,053,709,593.95 |
| 2021 | 370,122 | 1,321,361,431,666.31 |
| 2022 | 435,654 | 1,702,317,791,334.76 |
| Grand Total | 2,801,131 | 10,833,177,778,074.90 |

3.2 General organisation of the FMI

The FMI is owned by SADC through the Committee of Central Bank Governors (CCBG). Notwithstanding the overall ownership, the intellectual property rights in and to the system



used in the operation of the FMI, which system was developed by adapting the SAMOS system, remain vested in the SARB. The SADC-RTGS is operated by the SARB. The ownership matters and decision-making processes of the SADC-RTGS fall under the governance structures of the CCBG.

The SADC Protocol on Finance and Investment (FIP) states the following:

- a. Article 8 provides that the state parties shall ensure cooperation among their central banks in relation to the payment, clearing and settlement system.
- b. Annexure 6 recognises that central banks must cooperate through policy coordination, capacity building and system development, which in turn will contribute to reform, the facilitation of cross-border payments and support for monetary policy objectives; and
- c. Article 3(b) of Annexure 6 provides the framework for cooperation and coordination between the central banks to define and implement a cross-border payment strategy for the SADC region.

The South African Reserve Bank Act 90 of 1989 (SARB Act) was amended in 1996 to clarify the role and responsibility of the SARB in the domestic payment system. Section 10(1)(c)(i) of the SARB Act empowers the SARB to 'perform such functions, implement such rules and procedures and, in general, take such steps as may be necessary to establish, conduct, monitor, regulate and supervise the payment, clearing or settlement systems.'⁵

The National Payment System Act 78 of 1998 (NPS Act) enables the SARB to perform the functions provided for in the SARB Act. The authority to perform these functions is vested in the SARB's National Payment System Department (NPSD).

3.3 Legal and regulatory framework

The settlement service is supported by a well-established legal framework primarily based on rules, operating procedures, contractual agreements, laws, and regulations. The NPS Act provides the legal framework for the payment system, which includes the management, administration, operation, regulation and supervision of the payment, clearing and settlement systems in South Africa. The NPS Act also provides for the regulatory and supervisory powers of the SARB to manage and control all payment-related risks.

Section 4A(1) of the NPS Act provides that the SARB may designate a settlement system if

⁵ Information is available on the SARB website: www.resbank.co.za under <https://www.resbank.co.za/en/home/what-we-do/payments-and-settlements/regulation-oversight-and-supervision..>



such a designation is in the interest of the integrity, effectiveness, efficiency and/or security of the payment system. The SADC-RTGS has been designated as such a settlement system and therefore falls under the ambit of the NPS Act.

The SADC-RTGS's legal arrangements are based on a contractual basis through a number of multilateral agreements. The agreements are meant to provide legal certainty in the absence of an appropriate SADC-wide legal and regulatory framework for payment, clearing and settlement systems.

The stakeholders' agreement for the operation of the SADC-RTGS is signed by each participating central bank and the SARB as the SADC-RTGS operator. The SADC-RTGS service agreement is executed by the SADC-RTGS operator and the SADC-RTGS participants. The SADC-RTGS settlement agreement, for the settlement of payment obligations in the SADC integrated regional payment system, is executed between the SADC-RTGS participants.

3.4 SADC-RTGS system design and operations

The SADC-RTGS has been designed to utilise the mainframe platform with a front-end application or graphical user interface (GUI) known as the SADC-RTGSWeb application. The SADC-RTGSWeb application provides, among other things, instruction submissions by participants, participants' position to the regional clearing and settlement system operator (RCSO), regulatory reporting to central banks, and enriched reporting to participants.



Figure 5: SADC-RTGS settlement model

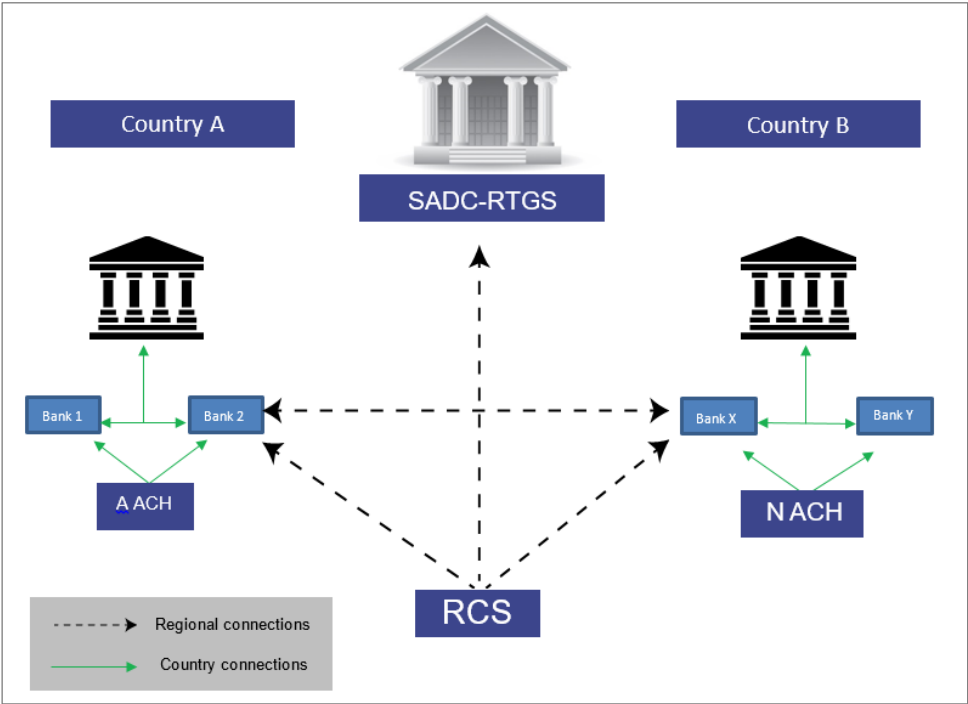


Figure 6: SADC-RTGS systems interfaces

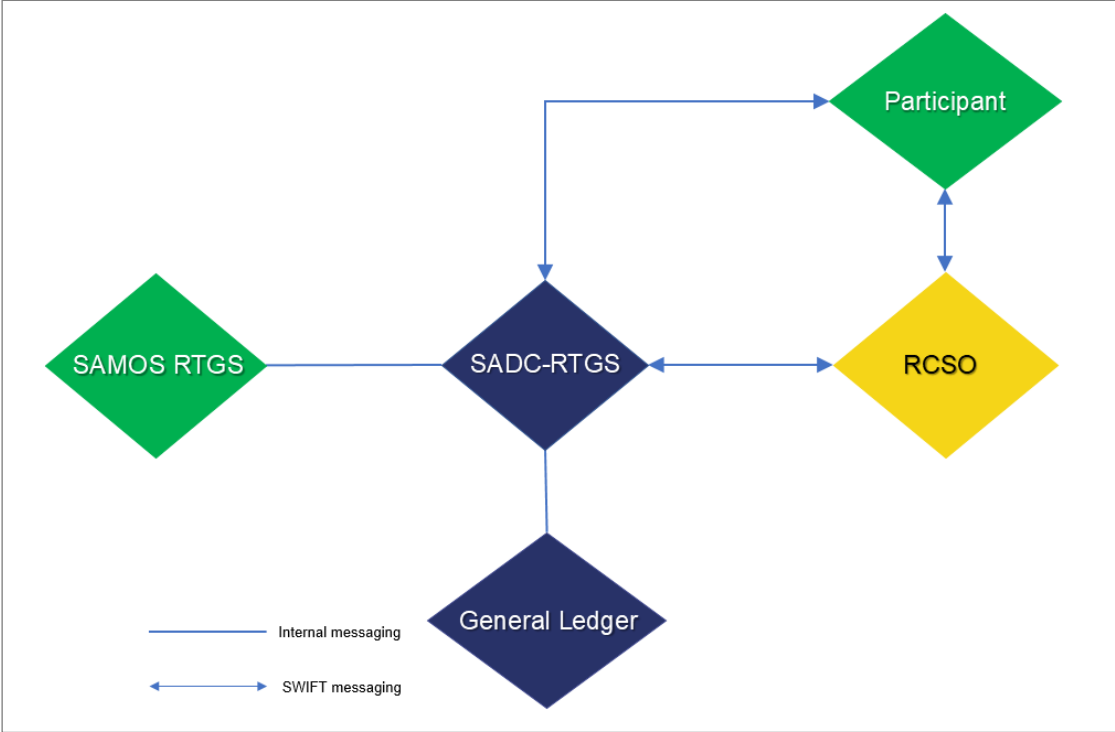


Figure 7: SADC-RTGS settlement model example with countries and participant banks

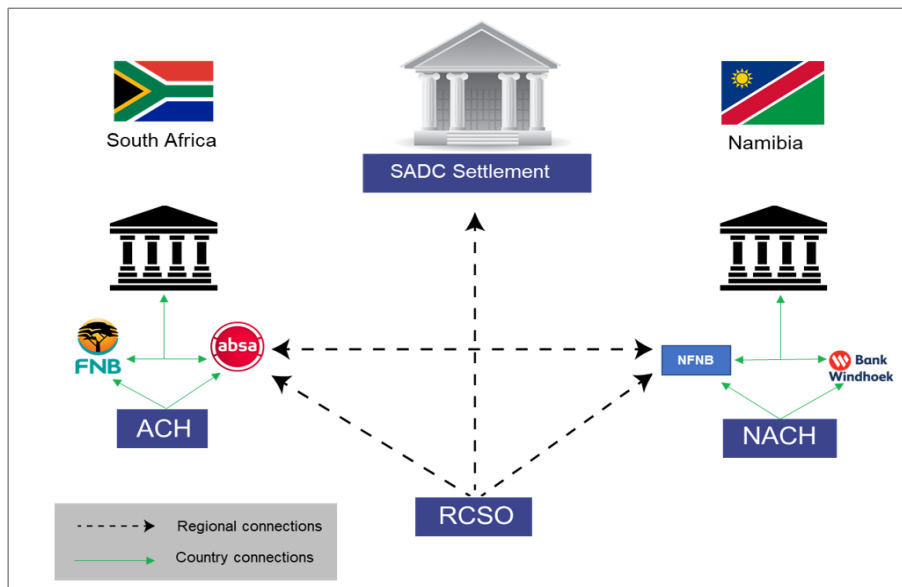
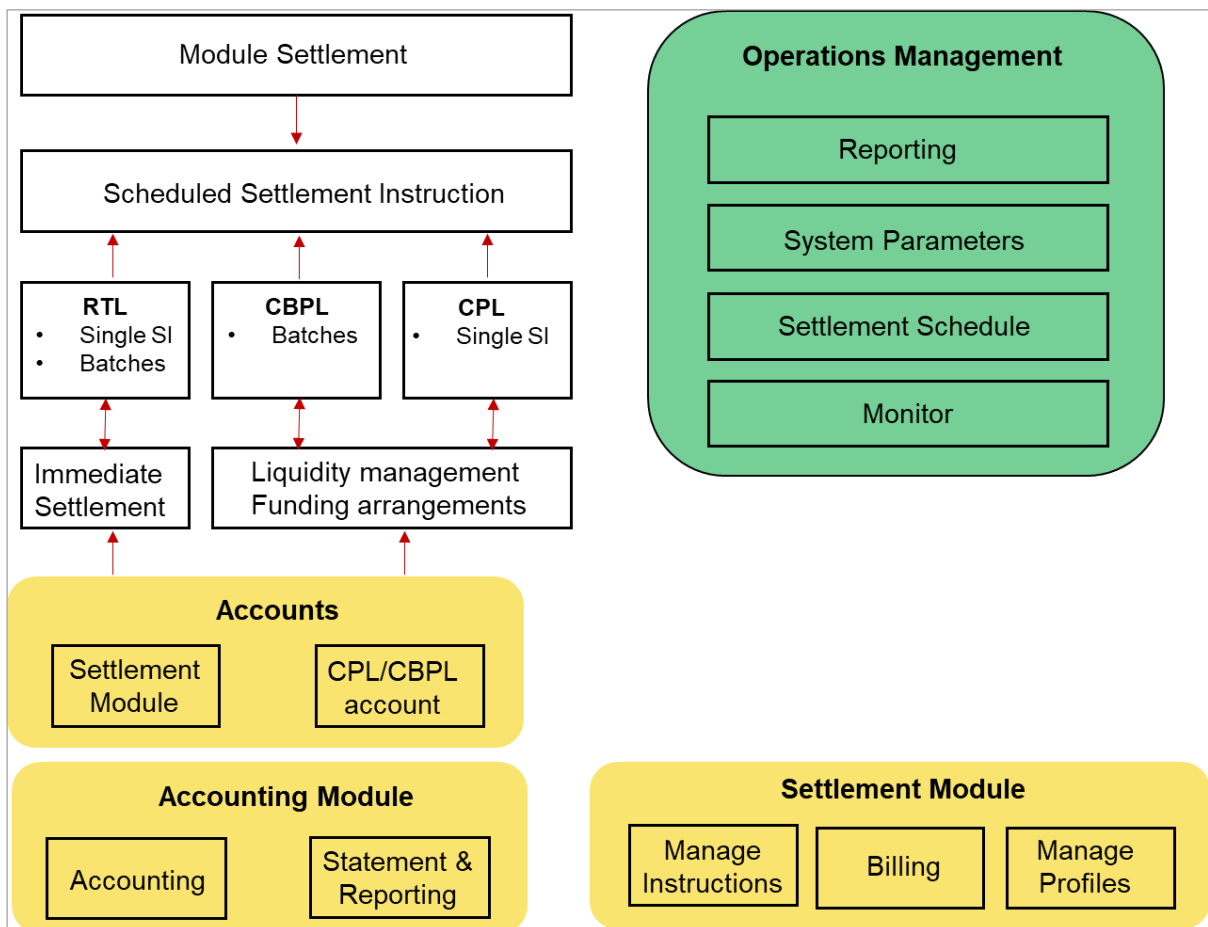


Figure 8: SADC-RTGS logical view



The SADC-RTGS administrator can view all parameters. However, SADC-RTGS participants may only view their own parameters. In the event of any parameter changes affecting the participants (e.g., a change in the interest rate or charges), participants are notified immediately via an information notification message. The components of the SADC-RTGS include the following:

- a. Settlement schedule
 - i. The SADC-RTGS settlement schedule is based on a five-days-a-week, sixteen-hours-a-day settlement system. It is divided into different windows that determine operational times.
 - ii. The settlement schedule for the SADC-RTGS is closed on weekends (i.e., Saturdays and Sundays) as well as on South African public holidays.
 - iii. An example of a business day settlement schedule in a 24-hour cycle is as follows:

Table 4: SADC-RTGS default settlement schedule

| Window 1 | Window 2 | Window 3 | Finalize Window | Position window | Night window | Start of new SCD |
|--|--|--|--|--|---|---|
| 00:01 – 07:00 | 07:00 – 12:00 | 12:00 – 16:00 | 16:00 – 16:05 | 16:05 – 16:30 | 16:30 – 00:00 | 00:00 – 00:00:01 |
| <ul style="list-style-type: none"> • Funding • IATI-SA-CPL • Normal Settlement • Return of funds <p>* SADC-RTGS charges + Interest settled</p> | <ul style="list-style-type: none"> • Funding • IATI-SA-CPL • Normal Settlement • Return of funds | <ul style="list-style-type: none"> • Funding • IATI-SA-CPL • Normal Settlement • Return of funds | F I N A L I Z E W I N D O W | <ul style="list-style-type: none"> • End-of-day (EOD) settlement instructions only • Return of funds | <ul style="list-style-type: none"> • End-of-day (EOD) settlement instructions only • Return of funds <p>* Interbank lending + borrowing</p> | <ul style="list-style-type: none"> • Flexcube update • SADC-RTGS charges calculated • SADC-RTGS charges and applicable interest posted to participants account • Settlement cycle day roll over |

- b. The SADC-RTGS provides the following settlement options:
 - i. The RTL is a settlement facility provided for settling single or batched settlement instructions in real-time on a gross basis. If liquidity is not available in the settlement account, the settlement instructions will fail.



- ii. The CPL is a settlement facility provided for settling single or batched (CBPL) settlement instructions on a gross basis, utilising net liquidity, and if liquidity is not available in the CPL/CBPL account, the settlement instructions are queued. The CPL/CBPL account is a subaccount of the settlement account. It is funded from the settlement account.
- iii. The CBPL is a settlement facility to process a batch of settlement instructions on a gross basis utilising net liquidity. If no liquidity is provided, the instructions are queued until a predetermined time when the whole batch will be discarded.

c. Collateral management

The SADC-RTGS does not offer collateral facilities. Participants' accounts must be prefunded.

d. Accounting

Each participant in the SADC-RTGS has one settlement account and a CPL account. The net movement of banks' accounts is passed to the main accounts in the SARB's general ledger (GL) system at the end of a settlement cycle day. The details of all the transactions are kept in the GL system. Certificates of balance are only produced from the GL system. The backdating of accounting entries is not allowed in the SADC-RTGS.

e. Reporting

- i. A comprehensive set of reports is available in the SADC-RTGS for both the operator and participants.
- ii. All reports and enquiries are shown from the SARB's accounting perspective (e.g., credits and debits, statements, and interest received and paid). Central banks, as regulators, can draw reports from the SADC-RTGS Web application to view the business operations and positions of their participants.
- iii. The RCSO can also draw positions of banks on the batch submitted by the RCSO for settlement.
- iv. Transaction data are kept for five years.

f. Fees/charges

The SADC-RTGS's operational costs are recovered from the participants. Participants'



operational costs and processing charges, including for the Society for Worldwide Interbank Financial Telecommunication (SWIFT) are recovered directly from participants. Penalties are also levied in the system. Invoicing and the recovery of charges are automated. A comprehensive list of fees and charges associated with utilising the SADC-RTGS facilities can be found on the SARB website.⁶

g. Operational support

The SADC-RTGS customer service to participating banks and central banks is provided by the SADC-RTGS Customer Support Centre (CSC). The CSC team is available to monitor the system during business hours to ensure an uninterrupted service is always delivered.

3.5 Steps taken to address the broadly observed principles.

Table 5: Steps taken to address the broadly observed principles.

| Principle | Category | Steps taken to address the broadly observed principles |
|-----------|------------------|---|
| 17 | Broadly observed | <p>The SADC-RTGS operator has taken the following steps:</p> <ol style="list-style-type: none"> 1. Finalised and obtained sign-off of the cyber-risk framework. 2. Embarked on a project to implement the replacement of the mainframe to prolong the lifespan of the current RTGS system. 3. Initiated a project to implement an effective integration layer. 4. Procured architecture advisory services to assist with the Target Operating Model. 5. Embarked on the review of the current RTGS system with a view to replace it to ensure operational efficiency and to address any potential risks. 6. Embarked on a project to implement an application that will store, recover, and replay data to the SADC-RTGS database in cases of the database contamination. |
| 21 | Broadly observed | <ol style="list-style-type: none"> 1. The SADC-RTGS International Organization for Standardization (ISO) migration supports the participants' requirement to migrate to ISO20022. The RTGS renewal programme will provide the RTGS system with services that increase resilience, wider access, increased |

⁶<https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/settlement-services/SADC-RTGS%20Charge%20Structure%20-%202022.pdf>



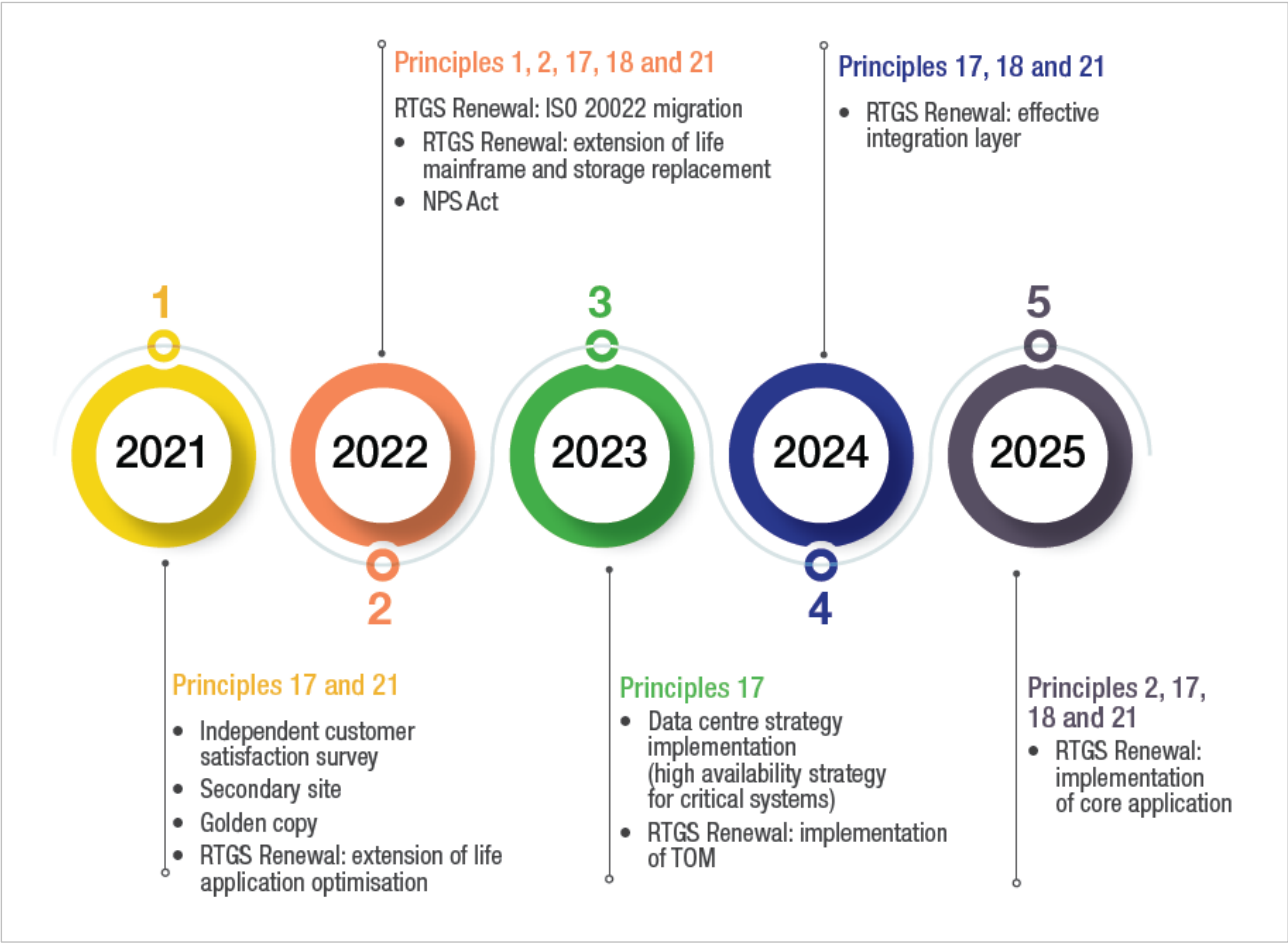
| Principle | Category | Steps taken to address the broadly observed principles |
|-----------|----------|---|
| | | interoperability, and improved user functionality. 2. The SADC-RTGS operator has appointed an independent service provider to conduct an anonymous user satisfaction survey. |

3.6 Conclusion

The FMI continually strives to achieve full compliance with the key considerations of the PFMI. The strategic initiatives indicated below aim to improve compliance with key considerations for various principles:



Figure 9: SADC-RTGS strategic initiatives – 2021 to 2025



PRINCIPLE-BY-PRINCIPLE NARRATIVE DISCLOSURE

Principle 1: Legal basis

An FMI should have a well-founded, clear, transparent and enforceable legal basis for each material aspect of its activities in all relevant jurisdictions.

A robust legal basis for an FMI's activities in all relevant jurisdictions is critical to an FMI's overall soundness. This principle should be reviewed holistically with the other principles.

The SARB, as the SADC-RTGS operator, observes Principle 1.

1.1. Material aspects and relevant jurisdictions

- a. The material aspects of the SADC-RTGS that require a high degree of legal certainty include:
 - i. the appointment of the SARB as the SADC-RTGS operator;
 - ii. the authorisation of participants;
 - iii. settlement finality and irrevocability of settled instructions;
 - iv. participant failure; and
 - v. settlement failure.
- b. South Africa is the relevant jurisdiction for the identified material aspects of the FMI's activities.

1.2. Legal basis for each material aspect

The SADC-RTGS stakeholders' agreement, the service agreement and the settlement agreement provide that the applicable law for the operations and provision of SADC-RTGS services is the South African law and the jurisdiction of the High Court of South Africa. The stakeholders' agreement is signed by each participating central bank and the SARB as the SADC-RTGS operator.

The SARB means the South African Reserve Bank established by section 9 of the Currency and Banking Act 31 of 1920.⁷ The SARB is governed by the laws of the Republic of South Africa. Therefore, the provision of settlement services is supported by a well-established legal

⁷ More information is available in the Banks Act 94 of 1990. The SARB Act states that the primary objective of the SARB shall be to protect the value of the currency of the Republic in the interest of balanced and sustainable economic growth in the Republic. In addition, the SARB is responsible for protecting and maintaining financial stability as envisaged in the Financial Sector Regulation Act 9 of 2017.



foundation, primarily based on statutes, regulations, rules, operating procedures and contractual agreements. Section 10(1)(c) of the SARB Act makes provision for the SARB to perform such functions, implement such rules and procedures and, in general, take the necessary steps to establish, conduct, monitor, regulate and supervise payment, clearing or settlement systems.

The South African national payment system (NPS) is governed by the NPS Act which provides the legal framework for the payment system.⁸ Section 4A(1) of the NPS Act provides that the SARB may designate a settlement system if such a designation is in the interest of the integrity, effectiveness, efficiency or security of the payment system; therefore, the SADC-RTGS has been designated as such a settlement system.⁹

Article 8 of the FIP provides that the state parties shall ensure cooperation among their respective central banks in relation to the payment, clearing and settlement system. Annexure 6 of the FIP recognises that central banks must cooperate through policy coordination, capacity building and system development, which in turn will contribute to reform the facilitation of cross-border payments and support for monetary policy objectives.¹⁰

Article 3(b) of Annexure 6 of the FIP provides the framework for cooperation and coordination between the central banks to define and implement a cross-border payment strategy for the SADC region.

The legal arrangements of the SADC-RTGS are based on a contractual basis through a number of bilateral and multilateral agreements. These agreements are meant to provide legal certainty in the absence of an appropriate SADC legal and regulatory framework for payment, clearing and settlement systems.

Participants that are not central banks must seek permission from their domestic central bank to participate in the SADC-RTGS and must comply with the conditions for access to the SADC-RTGS in terms of the SADC-RTGS service agreement. The CCBG Payment System Subcommittee has agreed on the minimum criteria to be used by central banks for applicants' approval to participate in the SADC-RTGS.

Section 5(2) of the NPS Act (as amended) states that: "A settlement that has been effected in

⁸ National Payment System Act 78 of 1998.

⁹ 'Designation of the Southern African Development Community Integrated Regional Electronic Settlement System as a designated settlement system', Notice 749 of 2013, *Government Gazette* No. 36666, 19 July 2013. https://www.resbank.co.za/content/dam/sarb/what-we-do/payments-and-settlements/designations/749of2013_SIRESS.pdf

¹⁰ http://www.sadc.int/files/4213/5332/6872/Protocol_on_Finance_Investment2006.pdf



money or by means of an entry to the credit of the account maintained by a settlement system participant in the Reserve Bank settlement system or a designated settlement system is final and irrevocable and may not be reversed or set aside.”

Further, section 8 of the NPS Act states that a curator or similar official that has been appointed to a clearing system participant or a settlement system participant is bound by any payment or settlement that is final and irrevocable in terms of section 5(2) or 5(3).

Participant failure is provided for under clause 5.4 of the SADC-RTGS settlement agreement. In terms of the SADC PSOC arrangements, the participant’s central bank is obliged to inform the SADC-RTGS operator if a participant in their jurisdiction undergoes business rescue or insolvency. Business rescue is applicable in the jurisdiction where such a status/registration has been legislated, and the insolvency law of the participant’s jurisdiction will be applicable.

1.3. SADC-RTGS rules, procedures and contracts

The SADC-RTGS rules, procedures and contracts have been developed based on the adequate legal analysis and conformity with all relevant laws and regulations the FMI and its participants must adhere to. The SADC PSOC is responsible for the regulatory rules, the FMI operator is responsible for the operational rules, and the SADC PSMB is responsible for business rules and models. The FMI operator collaborates with stakeholders regarding any rules, procedures and contracts to ensure that they are understandable and agreeable to them. Furthermore, the FMI operator is readily available to provide consultation on any issues that are not clear.

To date, no inconsistency has been identified in respect of the SADC-RTGS rules, procedures or contracts that might give rise to a conflict of laws and might subsequently require attention from the participating central banks’ jurisdictions.

The participant juristic laws are still applicable in terms of foreign exchange controls, domestic RTGS participation or settlement arrangements, oversight and other regulatory provisions. Therefore, by signing the service agreement and settlement agreement with the FMI operator to access the SADC-RTGS, participants formally accept to be bound by the rules and conditions governing the system, as included in the SADC-RTGS Operations and Service Level Manual.

1.4. Degree of certainty for rules and procedures

The FMI operator’s rules are clear on what is expected to qualify, and be registered, as a settlement participant in the SADC-RTGS. The reviewing of rules, procedures and contracts is always subject to legal opinion and confirmation from the relevant legal bodies (e.g., Legal



Subcommittee of the CCBG and/or the Legal Service Department (LSD) of the SARB). Furthermore, the FMI operator also considers any comments or proposal provided by the participants. Whenever new system rules, procedures and contracts are drafted, LSD reviews them to ensure that they comply with South African legislation.

All the agreements or contracts between the FMI RCSOs and participants are reviewed by both parties' legal representatives before they are signed to ensure that they are enforceable.

To date, no court of law has ever held any of the FMI's relevant activities or arrangements under its rules and procedures as unenforceable.

1.5. Mitigation of risks arising from any potential conflict of laws across jurisdictions

The FMI participants are spread throughout different jurisdictions in the SADC countries. However, clause 27 of the service agreement states: "This Agreement shall be governed by and construed in accordance with the law of the Republic of South Africa and all disputes, claims, actions, and other matters relating to this Agreement shall be determined in accordance with such law. The Parties hereby irrevocably and unconditionally submit to the jurisdiction of the High Court of the Republic of South Africa." Therefore, South Africa is currently the only relevant legal jurisdiction for the SADC-RTGS.



Principle 2: Governance

An FMI should have governance arrangements that are clear and transparent, promote the safety and efficiency of the FMI, and support the stability of the broader financial system, other relevant public interest considerations, and the objectives of relevant stakeholders.

In reviewing this principle, it should be noted that if an FMI is wholly owned or controlled by another entity, the governance arrangements of that entity should also be reviewed to ensure that they do not have adverse effects on the FMI's observance of this principle. As governance provides the processes through which an organisation sets its objectives, determines the means for achieving those objectives and monitors performance against those objectives, this principle should be reviewed holistically with the other principles.

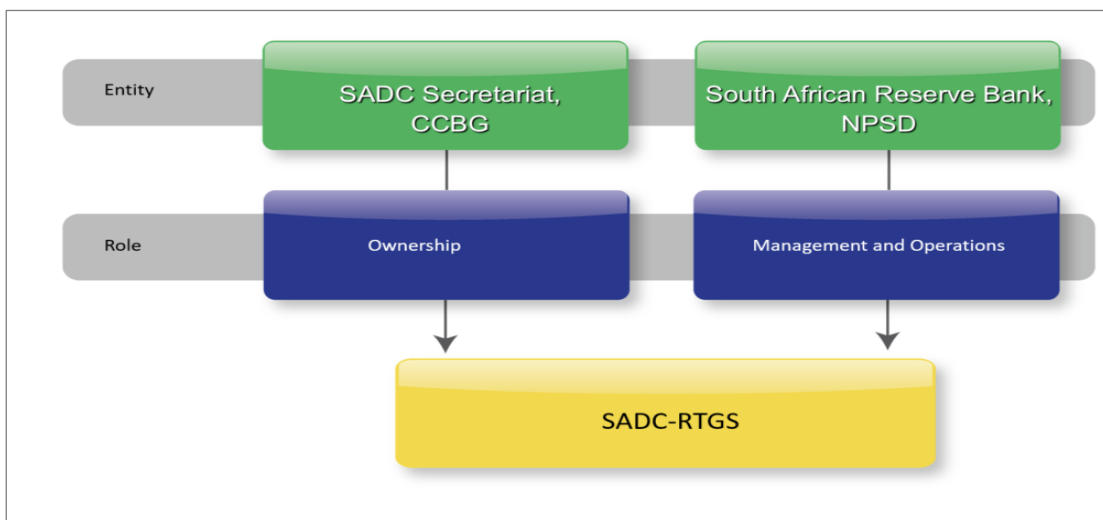
The SARB, as the SADC-RTGS operator, observes Principle 2.

All the key considerations are observed. The FMI is operated by the SARB and has wide public-policy objectives and responsibilities, including monetary policy. The Board of Directors (Board) of the SARB has delegated certain responsibilities to the line management that is applicable to the FMI.

2.1. The FMI and its governance structure objectives

The SADC-RTGS is owned by SADC through the SADC CCBG and is operated by the SARB which, as a central bank, places high priority on financial stability. Ownership matters and the decision-making processes of the SADC-RTGS fall under the governance structures of the CCBG.

Figure 10: SADC-RTGS ownership and operational structure



The SADC-RTGS is one of the CCBG's efforts to improve the settlement of cross-border payments. According to Annexure 6, Article 3 of the FIP, the objectives of these efforts include, among other things, to "identify, measure, minimize and manage payment system risk, in particular systemic risk relating to the payment system", as well as "define and implement, in each state party, a safe and efficient payment system based on internationally accepted principles".

Chapter 10 of Article 19 of the FIP provides for the functions and responsibilities of the CCBG. The governance structures of the CCBG are responsible for the strategic development of the SADC-RTGS. The CCBG objectives to maintain financial stability in the region have been clearly stated through the following strategic focus areas (SFAs):

- a. SFA 2: Contribute to financial market deepening and integration in SADC countries.
 - i. The objective is set out in line with Annex 13, Article 3 of the FIP (see Annexure A).
- b. SFA 3: Promoting financial stability in SADC countries.
 - i. The objective is set out in line with Annex 8, Article 2 of the FIP (see Addendum A).
- c. SFA 4: Promote financial integrity in SADC countries.
 - i. The objective is set out in line with Annex 6, Article 3 and Annex 12, Article 2 of the FIP (see Addendum A).

In line with the NPS Act, the mission of the NPSD is to ensure the safety and efficiency of the NPS in South Africa. The strategic intent of the NPSD Domestic and Regional Settlement Services as the FMI operator is to provide efficient and effective settlement systems that promote competition and mitigate risks to the payments ecosystem by leveraging technology developments to extend the availability of services to all sectors of society while meeting domestic, regional and international requirements for the benefit of all members of South African society, the SADC region and the African continent.

The FMI assesses its performance in meeting its objectives based on the effectiveness and efficiency of the system and on participants' feedback. The CCBG's measure of success is determined through the successful implementation of short-, medium- and long-term strategic initiatives.

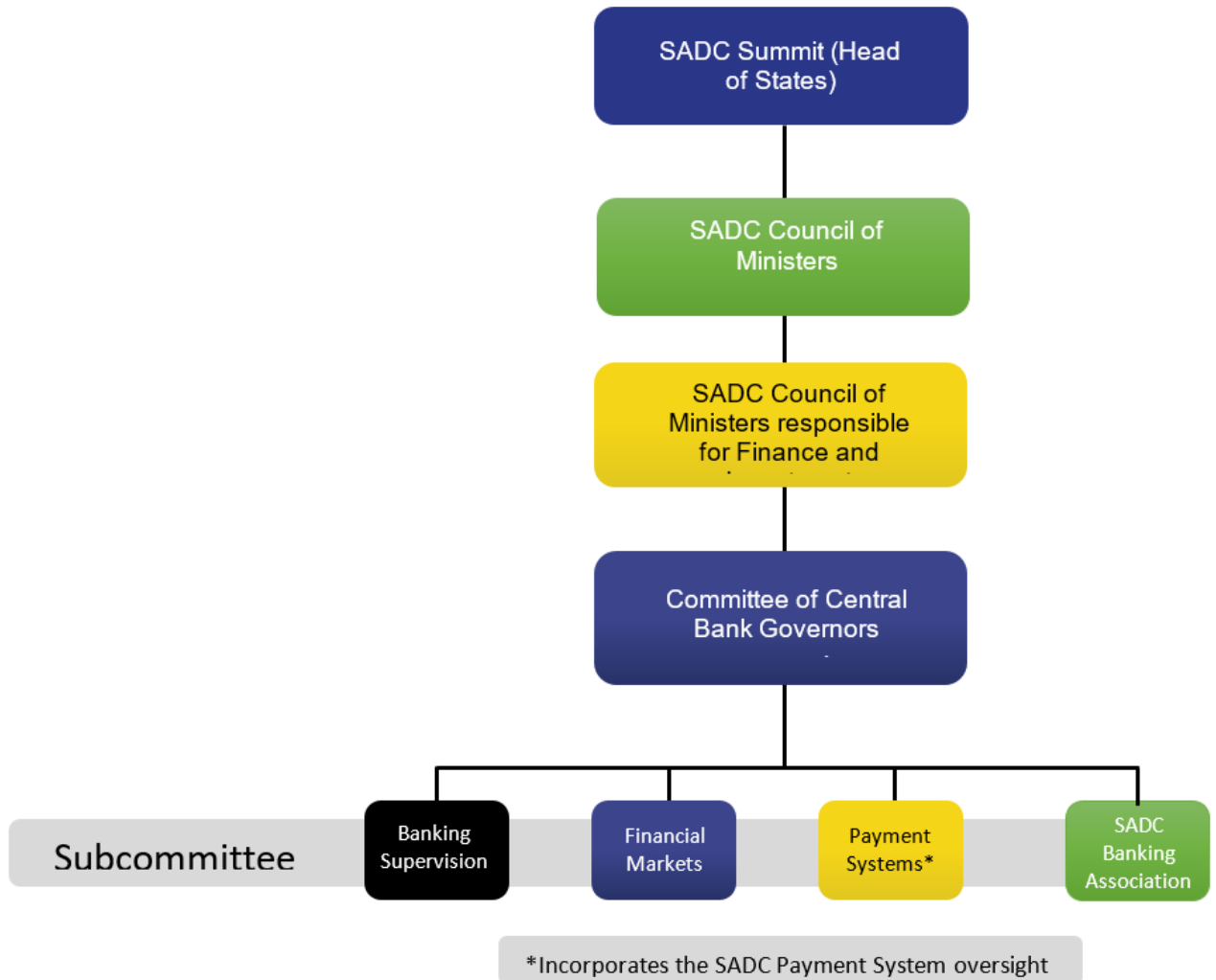
2.2. Governance arrangements

The SADC-RTGS is owned by the CCBG, which consists of the central bank governors of the SADC member states. The CCBG reports to the SADC Committee of Ministers for Finance and Investment (COMFI). The COMFI, CCBG and the Peer Review Panel institutions are established in terms of Article 17 of the FIP. The CCBG also has several subcommittees,



including a Payment System Subcommittee and a Legal Subcommittee.

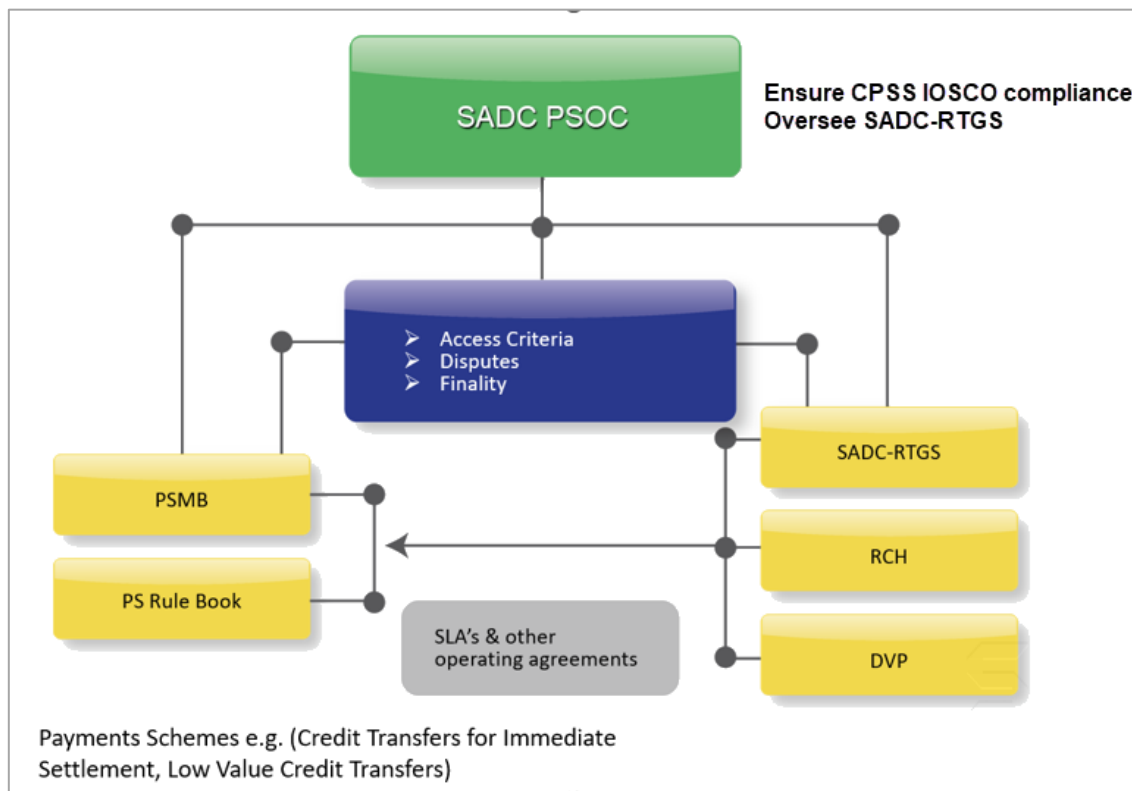
Figure 11: SADC CCBG governance structure



The Payment System Subcommittee is made up of representatives from all member countries and its main roles are to review and monitor the objectives set out in Article 3 of the FIP. In support of these objectives, the SADC Payment System Project Team is responsible for the day-to-day administration relating to the implementation of Annex 6 of the FIP, while the PSOC has general oversight responsibility over the SADC-RTGS, with the SARB as the lead overseer. The Legal Subcommittee of the CCBG acts, among other functions, as a consulting body for the Payment System Subcommittee.

Figure 12: SADC PSOC governance arrangements



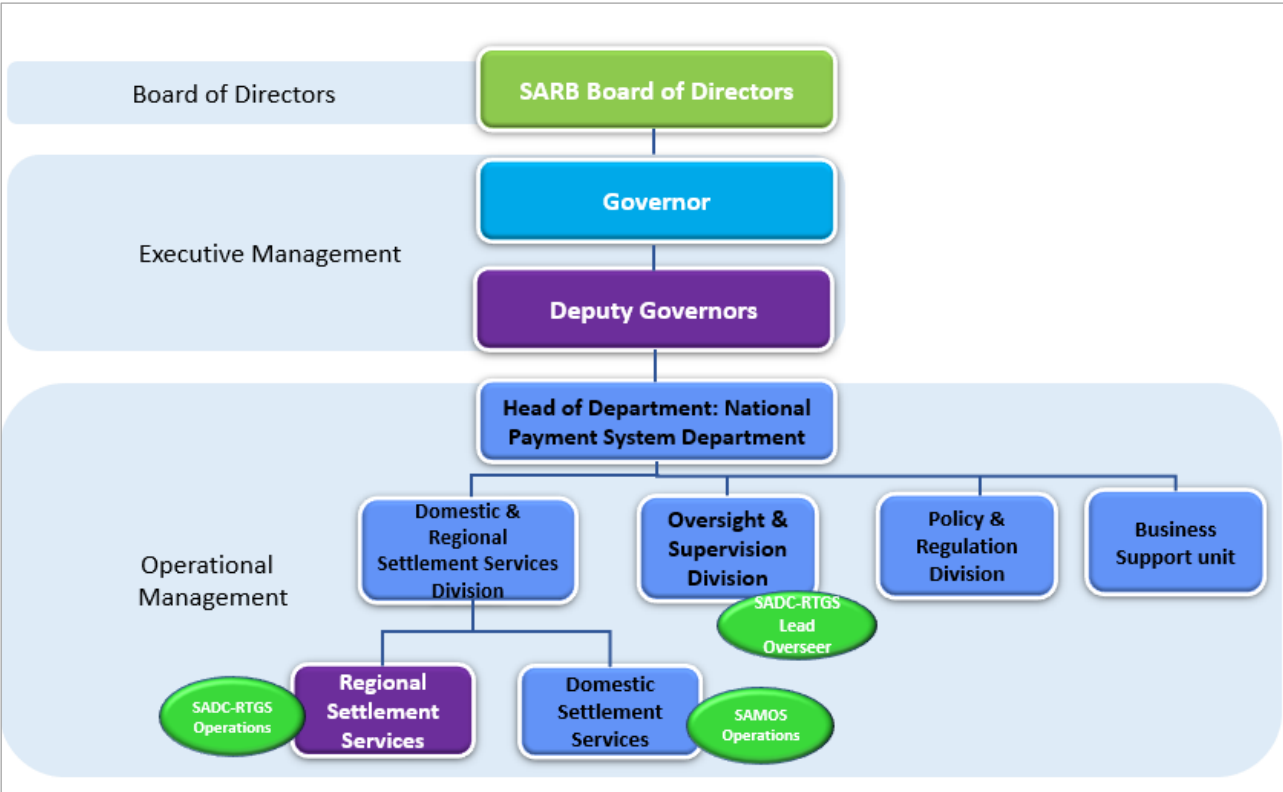


The top authority of the SARB is the SARB Board. The Governor is the Chairperson of the SARB Board. The delegated operations and management of the SADC-RTGS to the SARB by the CCBG has provided the SARB Governor with ultimate accountability for the proper functioning and sound management of the SADC-RTGS to the owners, participants, and other relevant stakeholders. The SARB, as the SADC-RTGS operator, provides reports on SADC-RTGS operations to the CCBG and to its shareholders.

The Deputy Governor responsible for the NPS has delegated the responsibility for managing FMI operations to the Head of NPSD. These responsibilities are clearly defined in the instrument of delegation of powers approved by the Governor. The management, operation and oversight of the FMI are located under the same Head of NPSD and, as a result, are reported to the same Deputy Governor.

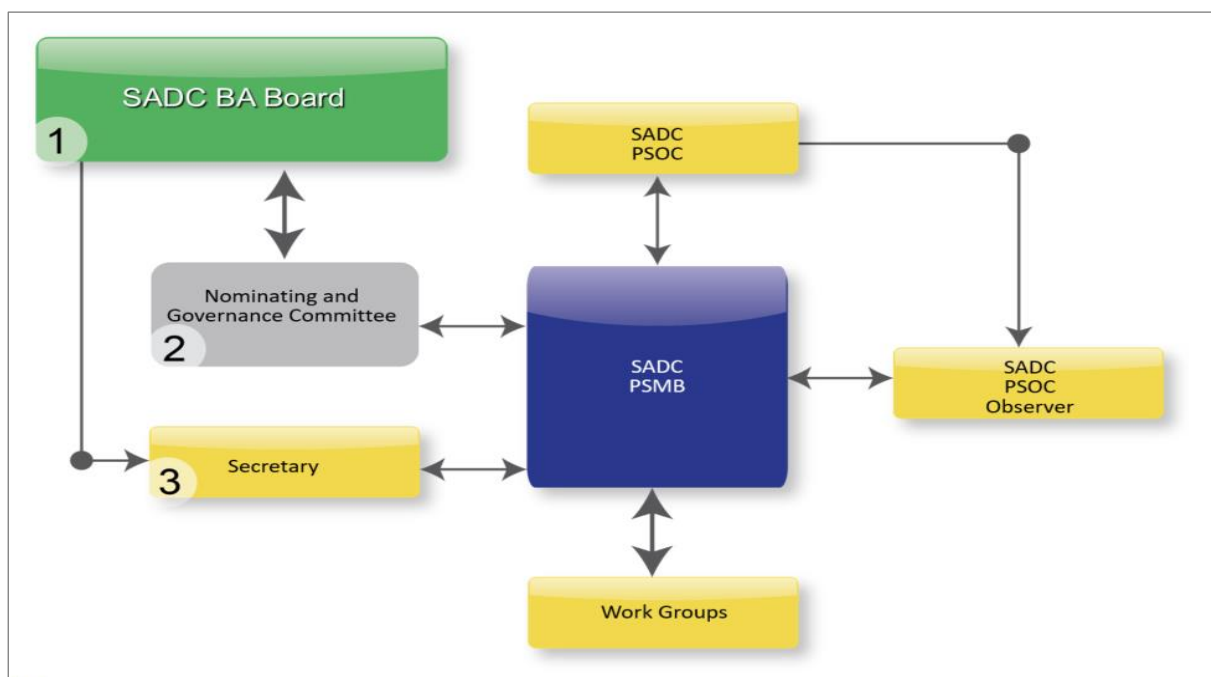
Each divisional head has a separate performance agreement with the Head of NPSD, with assigned delegations and areas of responsibility. This separation of roles minimises any possible or potential conflicts of interest. The structure of the NPSD is depicted in the diagram below:

Figure 13: NPSD governance structure



Furthermore, the NPS Act provides for the powers and duties of the SARB and PSMB regarding the settlement system. The FMI recognises the obligations and powers of a payment system management body (PSMB) established with the objective of organising, managing, and regulating the SADC-RTGS participants in the various payment schemes of the SADC clearing and settlement system. Each country that has individual members participating in a payment scheme is allowed to have a seat on the PSMB.

Figure 14: PSMB governance structure



The SADC Banking Association (BA) was established to coordinate the cross-border banking activities of its members. These activities include influencing policy, interacting with stakeholders, and initiating projects that can contribute to sustainable banking and investment policies and activities in the SADC region. Being in the cooperative (non-competitive) space, the focus of the SADC BA’s interventions is to define payment instruments, business rules and messaging standards for interbank use.

In terms of the SADC PSMB, the Settlement System Participant Group (SSPG) was established by the SADC-RTGS participants in the interbank clearing and settlement system by signing a settlement agreement. The SSPG acts with a common interest or consultative forum for the purpose of recommending and, once approved by the SADC PSOC and the SADC PSMB, implementing rules for settlement as well as liaising and consulting with the SADC PSOC, the SADC PSMB, the SADC-RTGS operator, and other parties within the clearing and settlement environment, as may be appropriate or desirable with regard to various matters, including operational, relating to the settlement of payment obligations in the cross-border clearing and settlement arena.

The SARB recognises the obligations and powers of the Payments Association of South Africa (PASA) as a domestic PSMB that was established with the objectives of organising and managing the participation of banks and operators in the NPS. These include all matters affecting payment instructions as well as the rights and obligations of PASA members. The

SADC-RTGS is a participant in the SAMOS system and therefore a member of the PASA SSPG.

2.3. Disclosure of governance arrangements

The SARB Annual Report contains governance arrangements, the key functions of the SARB and how these have been implemented, and the main outcomes and achievements during the reporting period. A general reference is made to the NPSD and its role, but no specific reference is made to FMI governance. However, it is discussed with participants through the available structures.

This self-assessment allows the FMI to disclose its governance arrangements.

2.4. Roles and responsibilities of the SARB Board

The SARB Board is a unitary body that functions in terms of the SARB Act and a Board Charter. The terms of reference of the Board Charter and of all the committees are reviewed every three years, unless otherwise required. The SARB's internal governance arrangements are deemed applicable for every aspect of the daily operation of the SADC-RTGS. Section 4A of the SARB Act clearly specifies the roles and responsibilities of the SARB Board.

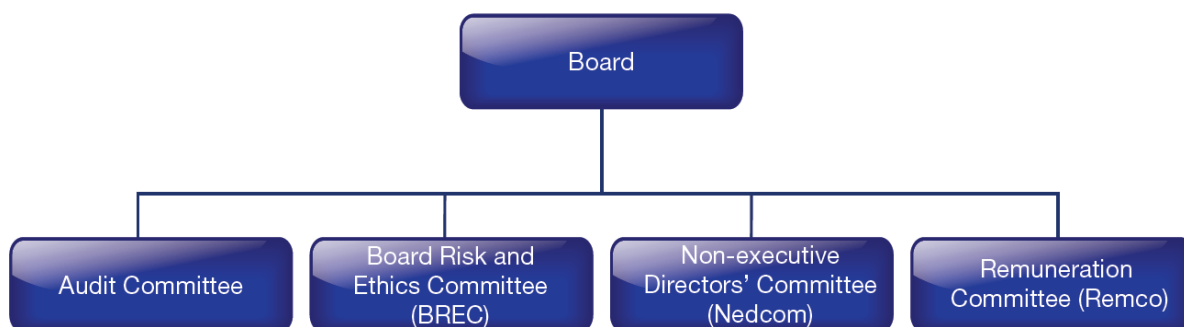
The SARB Act provides for the SARB Board to consist of 15 directors. The SARB Governor and three Deputy Governors are appointed by the President of the Republic of South Africa, after consultation with the Board and the Minister of Finance, initially for five-year terms which may be renewed. Four other directors are appointed by the President for three-year terms, after consultation with the Minister of Finance. The remaining seven directors are elected by shareholders at their ordinary annual general meeting (AGM).

The Board ensures compliance with principles of good corporate governance by, among other things, adopting rules and determining policies for the sound accounting, administration and functioning of the SARB, as well as by exercising the other tasks reserved for it in terms of the SARB Act.

The Board utilises various committees as depicted in the figure below, all of which are chaired by non-executive directors.



Figure 15: SARB Board and committee structure



The Audit Committee assists the Board in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, the audit process and, as appropriate, the SARB’s process for monitoring compliance with laws and regulations as they relate to financial reporting.

To identify, address and manage potential conflicts of interest, the Board has instituted a Board Risk and Ethics Committee (BREC) that is responsible for overseeing risk management in the SARB, including ethical risk, and periodically reviews the SARB’s Internal Code of Ethics and Business Conduct.

The Non-executive Directors’ Committee (Nedcom) assists the Board in fulfilling its legal and supervisory obligations and responsibilities, enhancing corporate governance practices, ensuring ongoing director training and development, and annually evaluating the performance of the Governor, Deputy Governors, and the Secretary of the Bank and the Assistant Secretary of the Bank. All non-executive directors are members of this committee.

The Remuneration Committee (Remco) reviews the Bank-wide framework for human resources, as well as the remuneration policies and practices for the Governor, Deputy Governors, and the structure of the remuneration of, and incentives for, other employees.

Board members perform annual self-assessments to evaluate how the Board and its committees are functioning..¹¹

2.5. Skills and incentives for the Board to fulfill its multiple roles.

The directors’ terms of office are prescribed in the SARB Act. Section 4(e) of the SARB Act

¹¹ See the SARB’s *Annual Report 2021/2022*, available at www.reservebank.co.za under Publications\Reports\Annual Reports.

provides for 'fit and proper' criteria for directors as well as the establishment of a Panel to evaluate prospective non-executive directors, while section 4(f) states the required background for the directors who are elected by shareholders. The Panel evaluates these directors in terms of skill, knowledge, and diversity to ensure that the Board consists of members with integrity and diverse knowledge and skills. The needs and skills of the Board members are assessed on an annual basis.

The SARB does not have a share incentive scheme and, as such, the executive directors do not participate in any incentive or performance bonus scheme. Shareholders do not approve the fees of the non-executive directors in advance by special resolution since the SARB is not governed by the Companies Act 71 of 2008.

The Remco establishes the remuneration guidelines and package for the Governor and the three Deputy Governors. In turn, the four governors, in their role as executive directors, recommend the remuneration of non-executive directors, for confirmation by the Board. The SARB Annual Report, in accordance with the SARB Act, specifies which directors are considered executive directors and which are non-executive directors.

2.6. Roles and responsibilities of management

The delegation of authority of powers contained in the SARB Act and the NPS Act provides for the roles and responsibilities, or line functions, that the Deputy Governor responsible for NPS delegates to the Head of NPSD and the management team concerning the SADC-RTGS. These include day-to-day operations and management of the FMI, including the oversight and application of policies, principles and best practice. The performance of staff charged with responsibilities in this area is evaluated based on a formal performance contract.

2.7. Experience, skills and integrity

Recruitment, selection, and skills development intervention are formally undertaken and led by the Human Resource Department within the SARB. To ensure a high level of public confidence in the SARB, new executives, management, and employees are security-vetted to examine the integrity of the individual through, among other things, the person's education (skills and competency) and criminal background checks to mitigate any potential security risks relating to FMI operations.

To promote the highest ethical standards in the SARB, employees' conduct is governed by the SARB Ethics Policy. This policy is endorsed by the SARB Board and approved by the Governors' Executive Committee (GEC). The fundamental principle underpinning this policy is



that business in the SARB should be conducted with honesty, fairness and according to the law. A disciplinary code and procedures are in place to manage any misconduct by management or any other employees of the SARB.

The Head of NPSD is appointed (and eventually dismissed) by the GEC. Divisional managers and other middle management staff are appointed (and eventually demoted or dismissed) by the Head of NPSD, in accordance with the human resources policies on the selection of managers and senior officials.

2.8. Risk management framework

The Board is ultimately responsible for directing and monitoring the entire process of risk management as well as forming its own opinion on the adequacy and effectiveness of this process. The SARB Group Risk Management Policy, as approved by the GEC, is in place (for details, see Principle 3) and is reviewed biennially by the Risk Management and Compliance Department (RMCD) and tabled for the Risk Management Committee (RMC), GEC and BREC's consideration for approval. This policy sets out the non-financial risk tolerance of the SARB Group.

The FMI management team is accountable to the RMC, GEC, and BREC. The business continuity plan (BCP) for the FMI sets out escalation and crisis management procedures to manage operational risks. The SADC-RTGS operator has developed an operational risk management framework which allows for the proactive management of operational risks in the FMI environment. This framework is reviewed and approved by the management responsible for the FMI.

2.9. Authority and independence of risk management and audit functions

The SARB has delegated the responsibilities of risk management at the strategic level to the RMCD. This department coordinates the governance, risk management and compliance activities of the SARB. Its functions are underpinned by relevant policies. The RMCD is functionally accountable to the GEC and reports on behalf of management to the RMC and the BREC. The SADC-RTGS operator is responsible for day-to-day operational risk management and the implementation of controls.

The Internal Audit Department (IAD) provides objective, independent assurance on the adequacy and effectiveness of the SARB Group's governance, risk management and control processes. The Chief Internal Auditor reports to the Governor and the Chairperson of the Audit Committee. The IAD, together with external auditors, conducts audits on the controls, systems



and processes of the SADC-RTGS system.

2.10. Identification and consideration of stakeholder interests

The SADC-RTGS operator has adopted a collaborative approach to identifying and considering the interests of the SADC-RTGS participants and other relevant stakeholders in its decision-making processes. This includes the Payment Council, the SADC-RTGS User Group (SUG), the SSPG, PSMB, and all the relevant legislation, such as position papers and other publications that are taken into consideration. The SARB Board recognises PASA's role through the GEC, which assigns responsibility to NPSD.

The SADC-RTGS operator performs business relationship meetings with the in-country participants throughout the year. The aim is to meet with the central bank and participants in a joint meeting, and it also holds one-on-one meetings with participant banks. A report of these meetings is prepared and sent to the respective country leader within the SADC structures. Copies are sent to the Head of the Domestic and Regional Settlement Division and the Head of NPSD.

2.11. Disclosure

Decisions about SADC-RTGS operations are made by the Head of NPSD; the Deputy Governor he reports to is a member of the GEC. In some cases, approval by the SADC PSOC is also required. Decisions at the strategic level are made by the CCBG Payment System Subcommittee and/or the CCBG itself. These decisions are communicated to the SADC community through the CCBG website, and for certain issues also through the SADC BA website.

The mandate, mission, objectives and functions of the SARB and its Board are published on the SARB website. The role of the NPS as well as the role and responsibilities of the SARB, through the NPSD, are also published on the SARB website. The SADC-RTGS operator holds a user group conference, which is a formal meeting to engage all active FMI participants, including other identified stakeholders.



Principle 3: Framework for the comprehensive management of risks

An FMI should have a sound risk management framework for comprehensively managing legal, credit, liquidity, operational and other risks.

The SARB, as the SADC-RTGS operator, observes Principle 3.

3.1. Risks that arise in, or are borne by, the FMI

The types of risk arising in, or borne by, the FMI include systemic risk, operational risk, settlement risk, legal risk, liquidity risk and reputational risk.

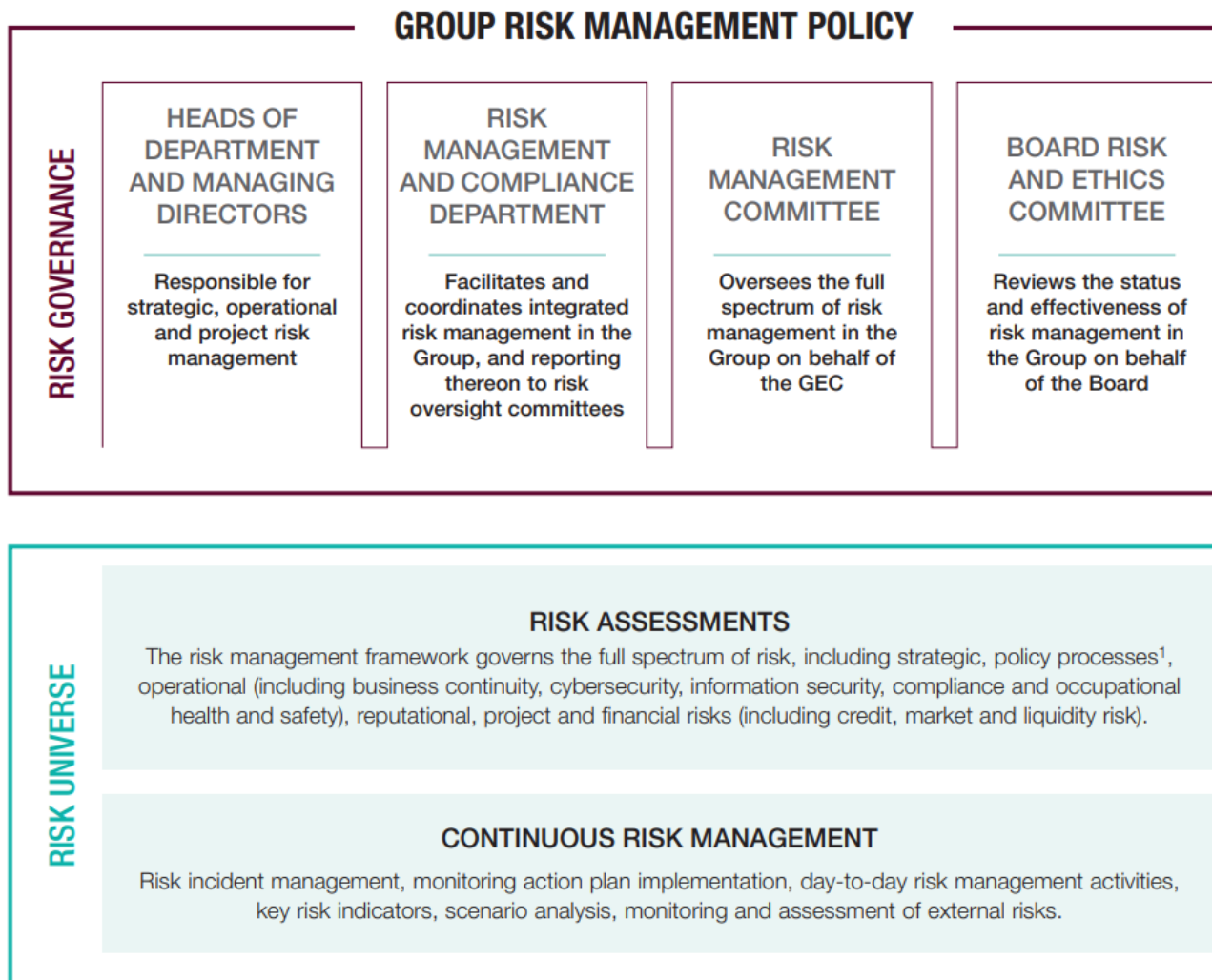
3.2. Risk management policies, procedures and systems

The SARB views risk management as an essential element of good corporate governance. The risk management processes and activities within the FMI operations are conducted in terms of the SARB Group Risk Management Policy. This policy details the SARB Group's governance processes, risk management framework, and the support structures and processes. This is illustrated in the figure below.



Figure 16: SARB Risk Management Framework¹²

Risk management framework

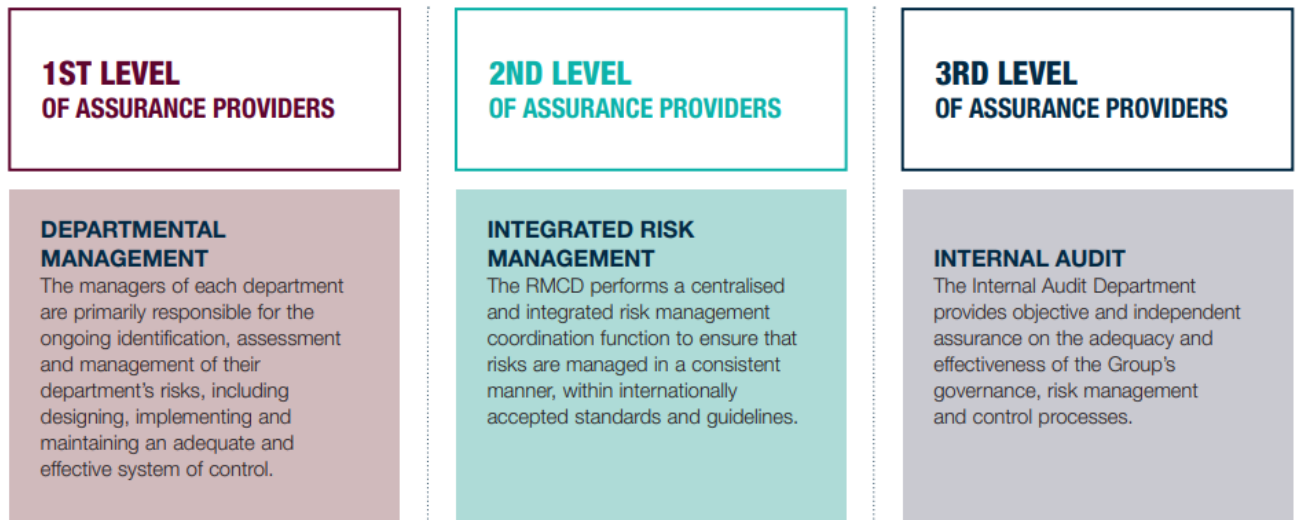


Combined assurance

The SARB Group’s combined assurance approach to risk management and control aims to integrate, coordinate, and align its assurance processes and to optimise the levels of risk, governance and control oversight. This forms part of the SARB Group Risk Management Policy.

¹² See the SARB’s *Annual Report 2021/2022*, available at www.reservebank.co.za under Publications\Reports\Annual Reports.





Business continuity management, as well as centralised coordination and services, is supported by this risk management policy and framework as well as by centralised coordination and services. The FMI is well designed and well-structured to minimise applicable risks to its participants and all other stakeholders. Strategic and operational risk matrices assist in recording, monitoring, and reporting strategic and operational risks. These matrices are updated monthly to ensure that action plans identified for implementation are reviewed for reporting.

Rigorous change management processes are implemented to assist with the management of risks. A crisis management procedure is in place to assist with managing any emergencies or operational disruptions. Service level agreements and memorandums of understanding are completed with relevant stakeholders to manage risks emanating in their environment and in the FMI's operations.

A risk management system is used to record risks and controls, including those of the FMI. The NPSD also uses the call logging system to record operational incidents reported that might affect the smooth functioning of the FMI's operations.

3.3. Review of risk management policies, procedures and systems

The FMI aligns its processes and systems with the SARB Group Risk Management Policy and, where required, works together with the RMCD to develop, and maintain risk management systems and processes. Procedures are developed by the NPSD's operations and approved by the departmental management team and, where applicable, the GEC. These procedures are updated regularly and audited by both the SARB's internal and external auditors.



In line with the SARB Group Risk Management Policy, strategic and operational risk self-assessments are conducted on an annual basis to identify new risks, and to review and assess existing controls. A monthly operations report is prepared and distributed to the Head of NPSD, the head of the NPSD oversight function and the relevant Deputy Governor to whom the FMI reports. The departmental management team participates in the Financial Sector Contingency Forum (FSCF) and related subcommittees.

SADC-RTGS participants are provided with all system regulations and relevant documentation. The SADC-RTGS provides participating banks with real-time information on the status of each individual payment instruction received as well as a reflection of real-time account balances. This real-time provision of information strengthens crisis management capabilities implemented by participating banks. Reports are made available to the participants and their central banks. Information is retained to comply with the requirements for record retention prescribed in the NPS Act.

3.4. Material risks

Material risks identified include liquidity and system availability. The SADC-RTGS bears material risks from the SAMOS system, as funding in ZAR for SADC-RTGS is channeled through the SAMOS system by the South African participants that are also participants in the SADC-RTGS. Therefore, a long disruption in SAMOS may have an impact in the SADC-RTGS liquidity. Reliance on SWIFT as the only message network carrier might pose a material risk to the FMI's operations. The NPSD participates in the review of strategic and operational risks, facilitated by the RMCD, on an annual basis.

3.5. Risk management tools

The risk management system and the NPS call logging system are used to log and manage any identified risks and risk incidents. The FMI's BCP document is reviewed annually to ensure risks are mitigated by processes and procedures. The FMI operator manages the risks of interdependencies, mainly through service level agreements established between the operator and its stakeholders. The IAD conducts audits on tools used by the NPSD for effectiveness and adequacy.

3.6. Scenarios that may prevent an FMI from providing critical operations and services

The FMI's BCP details various scenarios that may prevent the FMI from providing its critical operations and services. The scenarios are identified as part of the business impact



assessment conducted with the specialised operational risk function in the RMCD. Among other things, the scenarios identified include the loss of the primary information and communications technology (ICT) infrastructure, loss of facilities, and the unavailability of monitoring and support personnel.

3.7. Recovery or orderly wind-down plans

This is not applicable to the SADC-RTGS as it is operated by the central bank. Together with the central bank's inherent financial soundness, the SADC-RTGS is considered a critical function/service of the SARB.



Principle 4: Credit risk

An FMI should effectively measure, monitor and manage its credit exposure to participants and those arising from its payment, clearing and settlement processes. An FMI should maintain sufficient financial resources to cover its credit exposure to each participant fully with a high degree of confidence. In addition, a CCP that is involved in activities with a more complex risk profile or that is systemically important in multiple jurisdictions should maintain additional financial resources sufficient to cover a wide range of potential stress scenarios that should include, but not be limited to, the default of the two largest participants and their affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions. All other CCPs should maintain, at a minimum, total financial resources sufficient to cover the default of the one participant and its affiliates that would potentially cause the largest aggregate credit exposures to the CCP in extreme but plausible market conditions.

Principle 4 is not applicable to the SADC-RTGS as an FMI.

Regarding credit extensions to participants, the SADC-RTGS does not offer any credit extension to participants and therefore does not offer any collateral facilities to participants. The participants' accounts must be prefunded prior to settlement. Liquidity is provided by transferring rands from the South African domestic RTGS system into the SADC-RTGS.



Principle 5: Collateral

An FMI that requires collateral to manage its or its participants' credit exposure should accept collateral with low credit, liquidity and market risks. An FMI should also set and enforce appropriately conservative haircuts and concentration limits.

Principle 5 is not applicable to the SADC-RTGS as an FMI.

Regarding collateral arrangements, the SADC-RTGS does not offer any collateral facilities to participants. The participants' accounts must be prefunded prior to settlement. Liquidity is provided by transferring rands from the South African domestic RTGS system into the SADC-RTGS. Collateral may be raised in the domestic jurisdiction of the participant using domestic facilities. The participants may then proceed to borrow rands in the SADC-RTGS from the domestic counterparts or home central bank and use domestic arrangements for collateral, but this is outside the domain of the SADC-RTGS.



Principle 6: Margin

A CCP should cover its credit exposures to its participants for all products through an effective margin system that is risk-based and regularly reviewed.

Principle 6 is not applicable to the SADC-RTGS as an FMI.



Principle 7: Liquidity risk

An FMI should effectively measure, monitor and manage its liquidity risk. An FMI should maintain sufficient liquid resources in all relevant currencies to effect same-day and, where appropriate, intraday and multiday settlement of payment obligations with a high degree of confidence under a wide range of potential stress scenarios that should include, but not be limited to, the default of the participant and its affiliates that would generate the largest aggregate liquidity obligation for the FMI in extreme but plausible market conditions.

The SARB, as the SADC-RTGS operator, observes Principle 7.

In providing a settlement service, liquidity and market risks are linked. The SARB defines liquidity risk as the risk of a participant's inability to fund obligations as scheduled because of liquidity constraints, resulting in losses to other SADC-RTGS participants, unexpected calls on liquidity facilities and/or the settlement of low-value payment RCSO obligations.

The SADC-RTGS system is a multi-currency system, but currently only settles in ZAR. Liquidity within the SADC-RTGS is managed and monitored based on the established settlement rules, which demand the settlement account in which funds are sourced during settlement to have sufficient funds to ensure successful settlement, as settlement is based on the prefunding principle. Thus, payment instructions sent when there are no sufficient funds in the account are rejected immediately, and those pending in the CPL by the end of the operational day are removed and deleted.

The SADC-RTGS as an FMI does not act as a liquidity provider and hold liquidity in its own name, and therefore does not bear liquidity risk. Liquidity is held for each participant's own account in the system, which makes it the responsibility of the participant to ensure sufficient liquidity is available to ensure prompt settlement of all its obligations.

The SADC-RTGS is well designed to assist participants in managing their liquidity as it provides them with a real-time position monitor facility through the front-end application. The FMI does not offer any collateral or additional liquidity providers, even in times of liquidity stress.



Principle 8: Settlement finality

An FMI should provide clear and certain final settlement, at a minimum by the end of the value date. Where necessary or preferable, an FMI should provide final settlement intraday or in real time.

The SARB, as the SADC-RTGS operator, observes Principle 8.

The NPS Act clearly outlines the conditions applicable to settlement, when settlement occurs, and the responsibilities of all stakeholders involved. This provides a high degree of legal certainty that finality of all settlement instructions made through the SADC-RTGS will be achieved in South Africa.

Payments are settled in the SADC-RTGS in central bank money. Section 5 of the NPS Act provides that the settlement of payment instructions across the books of the SARB as well as the funding between settlement members and the SADC-RTGS via central bank accounts is final and irrevocable once the relevant accounts have been appropriately debited and credited. Therefore, the point of finality is the point at which both relevant accounts have been appropriately debited and credited upon successful settlement. This information is disclosed to all participants via the settlement and service agreements and to the public via the NPS Act.

As at 31 March 2022, the SADC-RTGS did not have any links to a CCP, a security settlement system (SSS), a central securities depository (CSD) or a trade repository (TR) system. It is, however, linked to the SAMOS system for South African participants to transfer rands into the SADC-RTGS. The point of finality is achieved when the participant's relevant accounts have been appropriately debited and credited between the two RTGS systems.

The structure of the SADC-RTGS is designed to provide final settlement of payment or settlement instructions in real time on the same settlement date. The only exception to the deadline of the settlement cycle day is when the end-of-day process is delayed by the SADC-RTGS operator due to operational challenges, which is contemplated in the system rules. In practice, the closing time has been deferred several times due to operational reasons, but final settlement has always occurred on the same settlement day. The SADC-RTGS has never experienced an incident where the final settlement has been postponed to the next business day.



Principle 9: Money settlements

An FMI should conduct its money settlements in central bank money where practical and available. If central bank money is not used, an FMI should minimise and strictly control the credit and liquidity risk arising from the use of commercial bank money.

The SARB, as the SADC-RTGS operator, observes Principle 9.

The SADC-RTGS is owned by the CCBG and operated by the SARB, the central bank appointed by the CCBG. Funding and settlement in the SADC-RTGS are separate and distinct, but related processes. Funding in the ZAR is done from the SAMOS system by the SAMOS– SADC-RTGS participant banks.

Payment instructions are settled across the books of the SARB. Payment is made to and from the SARB via the central bank accounts which the SARB has allocated to each participating settlement bank. Settlement in SADC-RTGS occurs in central bank money. Although the SADC-RTGS has been enhanced to be a multi-currency settlement system, currently it only settles in the South African domestic currency, the rand.

The SADC-RTGS does not settle in commercial bank money. Settlement instructions are settled across prefunded SADC-RTGS accounts, and therefore the FMI is not exposed to credit or liquidity risks. However, participants are exposed to some credit and liquidity risk with respect to the funds due to them from other participants. These risks are limited due to the design of the SADC-RTGS, which uses carefully tested algorithms to ensure the efficient use of funds during settlements. The FMI is a prefunded system and it is therefore the responsibility of the participants to monitor their respective positions as determined by their exposure.



Principle 10: Physical deliveries

An FMI should clearly state its obligations with respect to the delivery of physical instruments or commodities and should identify, monitor and manage the risks.

Principle 10 is not applicable to the SADC-RTGS as an FMI.

Principle 11: Central securities depositories

A CSD should have appropriate rules and procedures to help ensure the integrity of securities issues and to minimise and manage the risks associated with the safekeeping and transfer of securities. A CSD should maintain securities in an immobilised or dematerialised form for their transfer by book entry.

Principle 11 is not applicable to the SADC-RTGS as an FMI.

Principle 12: Exchange of value settlement systems

If an FMI settles transactions that involve the settlement of two linked obligations (e.g. securities or foreign exchange transactions), it should eliminate principal risk by conditioning the final settlement of one obligation upon the final settlement of the other.

Principle 12 is not applicable to the SADC-RTGS as an FMI.



Principle 13: Participant-default rules and procedures

An FMI should have effective and clearly defined rules and procedures to manage a participant default. These rules and procedures should be designed to ensure that the FMI can take timely action to contain losses and liquidity pressures, and continue to meet its obligations.

The SARB, as the SADC-RTGS operator partly observes Principle 13 as there are no possibilities for defaults in the SADC-RTGS. Key consideration 3 is partly observed, in line with the mandate of the SARB and SADC PSOC.

13.1. Participant default rules and procedures

The NPS Act and the SADC-RTGS settlement agreement provide for processes and procedures to be followed in the event of a participant's failure due to insolvency, curatorship, or business rescue. The NPS Act and the settlement agreement do not define the moment of default or 'zero hour'. However, the SADC-RTGS service agreement provides for the participant to be penalised in the event that the participant defaults as a result of insufficient funds being available to meet the participant's obligations, or where the actions or omissions of the participant negatively impact on the SADC-RTGS.

The SADC-RTGS service agreement defines the rights and responsibilities of the participant and the SADC-RTGS operator as well as the actions that the SADC-RTGS operator may take in the event of a settlement failure, default or insolvency proceeding against a participant. The settlement agreement provides for the process to be followed and the stakeholders to take appropriate action when a SADC-RTGS participant falls under business rescue.

The SADC-RTGS has been designed with the functionality that does not provide for credit facilities and allows for the immediate suspension of a participant, either temporarily or permanently, as controls to minimise the impact of a participant default. Procedures are in place to be followed by the SADC-RTGS operator, the RCSO and the participants in the relevant SADC Payment Scheme when one or more participants fail to ensure that their account in SADC-RTGS has sufficient funds to meet their inter-bank settlement obligation resulting from a batch of payments submitted to SADC-RTGS by the RCSO.



13.2. Use of financial resources

The SARB does not provide credit facilities in its role as the SADC-RTGS operator, and it does not use liquidity providers or any other source of liquidity to facilitate the settlement of payment instructions in the system.



Principle 14: Segregation and portability

A CCP should have rules and procedures that enable the segregation and portability of positions of a participant's customers and the collateral provided to the CCP with respect to those positions.

Principle 14 is not applicable to the NPS and the SADC-RTGS as an FMI.



Principle 15: General business risk

An FMI should identify, monitor and manage its general business risk and hold sufficient liquid net assets funded by equity to cover potential general business losses so that it can continue operations and services as a going concern if those losses materialise. Further, liquid net assets should at all times be sufficient to ensure a recovery or orderly wind-down of critical operations and services.

The SARB, as the SADC-RTGS operator, observes Principle 15.

Since the services are provided by the central bank, key considerations 2 to 5 are not applicable to the SADC-RTGS as an FMI. The requirement to hold ring-fenced liquid net assets funded by equity to cover business risk and support a recovery or a wind-down plan does not apply to the central bank, given a central bank's inherent financial soundness.

The main general business risks for the SARB in its role as the SADC-RTGS operator would be financial losses due to the cost of running the system being higher than the service fees that the SARB charges for the provision of those services. In this regard, the FMI operator has developed a robust costing methodology to ensure service fees are appropriate to cover all operational costs (i.e., direct costs, including capital expenditure, and some of the indirect costs). The cost and revenue are monitored each month and then summarised on an annual basis and submitted to the GEC and the SADC PSOC. This information is used as input to determine the charge structure for the following year. The charge structure is publicly disclosed.

In addition, the SARB has a robust framework to identify, monitor and manage its general business risks under the overall risk management framework, as discussed under Principle 3 and Principle 17.



Principle 16: Custody and investment risks

An FMI should safeguard its own and its participants' assets and minimise the risk of loss on, and delay in, access to these assets. An FMI's investments should be in instruments with minimal credit, market and liquidity risks.

Principle 16 is not applicable to the SADC-RTGS as an FMI.

The SARB is the central bank of issue of the ZAR, which is the currency used for settlement in the SADC-RTGS. In its role as the SADC-RTGS operator, the SARB does not invest or safeguard participants' assets as it does not provide any credit facilities which usually require collateralisation.



Principle 17: Operational risk

An FMI should identify the plausible sources of operational risk, both internal and external, and mitigate their impact through the use of appropriate systems, policies, procedures and controls. Systems should be designed to ensure a high degree of security and operational reliability and should have adequate, scalable capacity. Business continuity management should aim for timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.

The SARB, as the SADC-RTGS operator, observes Principle 17.

17.1. Identification and management of operational risk

As part of key consideration 1, an operational risk function is in place within the NPSD which provides for a systematic, structured, and transparent approach to managing operational risks in the FMI. Operational risk in the FMI is mitigated through the design and architecture of the system and processes, which provide for system integrity and security as well as the availability of FMI operations. The SADC-RTGS has a high degree of operational reliability due to the resilience of its technical architecture and infrastructure, which enables the FMI to render settlement services to participating institutions.

As set out in Principle 3, the SARB Group Risk Management Policy forms the basis for governing and integrating risk management in the SARB, as endorsed by the SARB Board. Since the inception of the SADC-RTGS, the SARB has put policies, processes, and controls in place to manage or mitigate any potential operational risks.

All the risks identified are recorded in risk matrices to allow the NPSD and RMCD to monitor the risks. The matrices are updated every quarter with follow-up actions or any new developments in managing the risks. The results of these processes are reported by the RMCD to the relevant risk oversight committees of the SARB and monitored through the risk management process of the SARB.

The FMI is accountable to the BREC and related structures to provide follow-up actions identified for implementation to manage residual risks. The FMI operating procedures are documented in the Settlement Operations Manual that outlines all procedures used by the NPSD operations in its daily, weekly, monthly, and annual tasks performed on and for the RTGS system.



The FMI also participates in various national and international initiatives, which allows for new standards and best practices to be adopted or implemented to enhance operational risk management. The FMI's human resources policies are embedded in the SARB Group's human resources policies.

A strict recruitment process is followed by the SARB's human resources function in processing the appointment of new recruits. The skill set, knowledge and human capacity of the FMI staff is designed in such a way that the risk of key-person dependencies is mitigated. The SADC-RTGS operator is governed by the ethical standards espoused through the SARB Ethics Policy.

All changes directly and indirectly impacting the FMI operations must follow change management processes as outlined in the change management procedures.

17.2. Roles, responsibilities and framework

The roles and responsibilities for operational risk management are clearly defined in the SARB Group Risk Management Policy. The SARB Board is ultimately responsible for directing and monitoring the total process of risk management as well as forming its own opinion on the adequacy and effectiveness of the process. The GEC approves any changes to this policy.

The RMCD coordinates the entire risk management process in the SARB and reports to the GEC and relevant risk oversight structures. Responsibility for day-to-day operational risk management lies with line departments. As per NPSD's Operational Risk Management Framework, the FMI operator provides the first line of defense, while system participants and system operators are responsible for managing operational risks that they introduce in their environment.

17.3. Review, audit and testing

The SARB Group follows a combined assurance approach to risk management and control. This approach aims to integrate, coordinate, and align the assurance processes within the SARB Group and to optimise the level of risk, governance, and control oversight.

The FMI's operations, policies, procedures, and controls are audited annually or as and when required by internal audit. This audit also covers arrangements that the FMI has with participants. All the FMI's critical business processes are tested on a quarterly basis with participants.

The service standard provides for an incident management procedure that is followed by the



FMI and the SARB's Business Solutions and Technology Department (BSTD) in managing an incident and ensuring that the agreed service levels and recovery time objectives are maintained. This procedure also allows for a multi-disciplinary approach in managing incidents that negatively impact on other processes or functions in the SARB that interface or are integrated with the FMI's operations.

17.4. Physical security

The SARB Group Security Policy and related framework provide a framework within which physical and information security risks are managed in the FMI. These allow for the management of physical security (i.e., at the facilities), which includes assets and processes, information security in any form (i.e., written, spoken and electronic) as well as security for staff, contractors, and visitors.

The SARB is an organ of state, which means that all its facilities are declared as national key points (NKPs) in respect of critical infrastructure protection legislation. As such, the SARB's security is subject to external oversight and review by official entities. In support of this, an annual NKP security assessment is conducted, and an information security audit is done.

The SARB Group Security Management Department establishes processes, structures, and technologies to provide continual situational awareness in terms of threats to all its assets and liaises closely with external stakeholders to identify and address new or emerging threats.

17.5. Information security

The SARB Group Security Policy is in place to ensure that assets belonging to the SARB Group are protected and secured. According to this policy, the definition of assets includes information, applications, networks, and systems. This policy is further supported by a detailed set of cyber and information security standards, procedures, and guidelines.

Regular audits are performed by external and internal auditors on these policies, processes, and procedures.

17.6. Objectives of a business continuity plan

The SARB has a BCP in place which aims to provide a framework for the effective management of a business continuity management programme. This policy allows each department, including the FMI, to establish a BCP which is specific and appropriate to its



own operations. In this context, business continuity management is supported by the NPSD Operational Risk Management Framework, and more specifically by the NPSD BCP, which applies to the SADC-RTGS and other NPSD operational services.

The BCP in place defines the roles and responsibilities of the recovery team, including governance arrangements, to clarify the level of authority required to invoke the plan. Operational procedures are documented to support the recovery of the FMI's critical business processes. The operational reliability objectives are documented and agreed to with BSTD in the service standard and the BCP, which indicate that the critical business processes should be recovered within two hours after an operational disruption has occurred.

17.7. Design of a business continuity plan

The BCP is designed in such a way that the time for the recovery of vital information systems for the SADC-RTGS's important operations should be less than two hours. It also specifies the recovery procedures in the case of the risk events causing the suspension of the settlement operations. These procedures include those for the business operations and the switch to the disaster recovery (DR) site.

The failover mechanisms protect against hardware and telecommunications failures so that there are no possibilities for data losses. The operational capacity of the system is sufficient to allow for the completion of settlement by the end of the day, even during worst-case situations.

17.8. Secondary site

The SARB has a DR site as a secondary data center and as secondary business offices for FMI operations. The business continuity arrangements in place provide for the monitoring and support function for the FMI operations to take place at dual sites (i.e., primary, and secondary sites). Critical teams for FMI operations are located at each site daily to monitor RTGS operations and provide support to the participating institutions. This allows for the immediate availability of the SADC-RTGS operational staff and for access to the system within the agreed recovery time if the SADC-RTGS were to switch production to the ICT infrastructure at the secondary site. However, there is adequate remote support capability to switch these critical business processes within the agreed service levels. The SADC-RTGS operator has introduced a third site which provides physical presence for operations staff to connect to the primary or secondary site for monitoring and support capabilities.



17.9. Review and testing

The BCP arrangements are tested at least three times a year. Any anomalies, weaknesses and malfunctions encountered are viewed as an opportunity to review the business continuity arrangements. Based on the outcomes of these tests and the reports submitted to the executive management, the arrangements are deemed to be reviewed. The business continuity arrangements are also audited by the SARB's IAD. In line with the FMI's BCP, a walk-through exercise is conducted to identify gaps or risks and to provide solutions or alternatives to manage or mitigate the risks. As part of the resilience test, the SADC-RTGS operator can conduct an ICT systems failover to the secondary site and be fully operational for an extended period as part of the BCP.

17.10. Risks to the FMI's own operations

The BCP and the Contingency Plan provide for the recovery procedures in the case of the risk events causing the suspension of the SADC-RTGS's operations.

The risks arising from system support, skills and electricity are managed and monitored as part of the service standard agreement entered between the FMI and BSTD. Service level agreements (SLAs) with penalty clauses are in place with service providers to protect critical services. The SARB's BCP document is reviewed annually to ensure risks are mitigated with adequate processes and procedures.

17.11. Risks posed to other FMIs

The risks identified are managed through the service level agreement entered with each interdependent FMI. Changes to the FMI processes and systems are also discussed with interdependent FMIs. These changes are also tested with the interdependent FMIs before being implemented in the live environment.

Each interdependent FMI participates in the BCP/DR tests conducted by the FMI. Contingency arrangements are discussed and agreed upon with each interdependent FMI and documented in the service level agreements and the FMI's operating procedures. These arrangements are also tested on a regular basis for review and awareness.



Principle 18: Access and participation requirements

An FMI should have objective, risk-based and publicly disclosed criteria for participation, which permit fair and open access.

The SARB, as the SADC-RTGS operator, observes Principle 18.

18.1. Participation criteria and requirements

Participation in the SADC-RTGS is open to SADC central banks or any financial institutions that are participants in their domestic RTGS system and authorised by the central bank in the country of their origin to participate in the SADC-RTGS, as well as non-banks that are authorised by the central bank in the country of their origin to provide cross-border payment services and to be participants in the SADC-RTGS. Central banks that are participants in the SADC-RTGS must be a SADC member state central bank and the country in question should be in good standing in the SADC membership.

The SADC PSMB has been given powers by the SADC PSOC to draft access criteria requirements for clearing and settlement system operators that provide their clearing services for regional cross-border transactions to SADC-RTGS participant banks as well as the settlement of the resulting positions in the SADC-RTGS.

The reason there is participation criteria for the FMI is to ensure safe, secure, and continuous connectivity with the technological platform, which is an essential requirement to ensure safe and efficient operations.

In principle, all eligible participants are subject to the same access criteria. However, each domestic central bank is responsible for managing financial institutions under its jurisdiction's participation in the SADC-RTGS. The various central banks may have different/additional requirements that prospective participants must comply with in their country.

As at 31st March 2022, the system had one RCSO and a total of 84 direct participants comprising SADC central banks and commercial banks.

18.2. Disclosure of criteria

The SADC-RTGS has an open and transparent participation criterion which is publicly disclosed. The requirements and the processes to be followed to participate in the SADC-RTGS as well as the procedures to be followed to facilitate the suspension and termination of



membership are available on the SARB website, the CCBG website and from the SADC BA free of charge. The requirements and the processes to be followed to participate in the SADC-RTGS are available on the CCBG and SADC BA websites.

The SADC PSMB published a 'Getting Started Guide' which is a summarised handbook of the regulatory and business requirements of a new financial institution wanting to join the SADC-RTGS. The document describes certain procedural and business requirements as well as other information relating to participation in the SADC-RTGS.

18.3. Monitoring compliance

The specific participation requirements are defined in the SADC-RTGS service agreement. The rules, which are also publicly available, define the requirements for initial and continuing participation in the SADC-RTGS. Upon joining, participants are continuously monitored for compliance with the regulatory framework. Failure to abide by these regulations could result in suspension from the system.

Individual SADC central banks are also entitled to monitor compliance of the requirements they may have set for the actual participants that fall under their jurisdiction.

18.4. Suspension and orderly exit

The SADC-RTGS stakeholders' agreement also provides that a member country's central bank may terminate its agreement to appoint the SARB as the SADC-RTGS operator. The implication of a central bank terminating its participation in the SADC-RTGS would automatically impact the participation in the SADC-RTGS by institutions or commercial banks in the central bank's country of origin.

From an operational perspective, the SADC-RTGS has been designed with the functionality to immediately suspend a participant temporarily or permanently. The SADC-RTGS operator may suspend a participant from taking part in the payment settlement services.

Clear SADC-RTGS procedures exist for managing the suspension and orderly exit of a participant. The suspension and orderly exit of a participant is not publicly disclosed as communication is done to current participants via SADC-RTGS operational notices. The SADC BA is responsible for distributing a notification in this regard to all relevant stakeholders.



Principle 19: Tiered participation arrangements

An FMI should identify, monitor and manage the material risks to the FMI arising from tiered participation arrangements.

Principle 19 is not applicable to the SADC-RTGS as tiered participation is not allowed in the SADC-RTGS.

The SADC-RTGS does not have tiered participation arrangements. The SADC-RTGS system caters only for direct participation. Indirect participation is allowed; however, any exposures from such arrangements would not be directly visible in the SADC-RTGS. There are no material dependencies between direct and indirect participants in the SADC-RTGS, therefore the sponsoring bank must manage the risks borne by such arrangements.



Principle 20: FMI links

An FMI that establishes a link with one or more FMI should identify, monitor and manage link-related risks.

Principle 20 is not applicable to the SADC-RTGS as an FMI.



Principle 21: Efficiency and effectiveness

An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.

The SARB, as the SADC-RTGS operator, broadly observes Principle 21.

The SADC-RTGS was specifically designed to effectively and efficiently improve and address settlement risk in SADC regional cross-border payment system. The FMI meets the requirements of its participants and the industry it serves by providing a valuable settlement service. The SADC-RTGS operator regularly strives to improve the system's efficiency and practicality by seeking feedback from participating central banks, other participants and interested parties. The SADC-RTGS operator participates in numerous external user group forums to obtain information on best practices, innovations in the market, participating members' business needs and demand for new features as well as to drive the development of new practices.

The goals on effectiveness are stipulated in the SADC-RTGS service agreement and refer essentially to operational effectiveness. The SADC-RTGS operator interacts with the participants via the participants' representative body, namely the SADC PSMB. However, the body is an independent governance structure of the SADC BA, with specific powers to administer SADC payment schemes.


The SADC-RTGS operator also interacts with participants through business relationship management meetings which are conducted with attendance by the domestic central bank. These engagements are used for the collective sharing of information as well as visits to the participants individually.

The objective of the SADC-RTGS User Group conference is for the SADC-RTGS operator to meet with the participants annually to discuss the SADC-RTGS operator's performance, level of customer service, the efficiency of SADC-RTGS services, cost recovery policy matters, the effectiveness of system implementation and upgrades, offered products and services, and other relevant matters.

The outcomes of the SADC-RTGS User Group conferences are shared with the SADC PSOC, the SADC PSMB and other interested parties (where relevant). The information is considered when planning strategic initiatives.

To provide the industry with the best service, the SADC-RTGS system availability is paramount. The NPSD therefore has a service standard with BSTD which includes areas of minimum service levels, risk management expectations and business priorities.





Monthly operational statistical reports are provided to the NPSD management team and the SADC PSOC country leaders and designees and used as a mechanism to determine the use of the infrastructure by the participating members and to assess incidents, system downtime/availability and the resolutions thereof.

The review of the SADC-RTGS system includes functionality and technology and is conducted every five years. In February 2020 the SARB executives approved the RTGS Renewal Programme to review the core systems but also to review the Target Operating Model and relevant architectures of the SADC-RTGS system. The project will run over multiple years and form part of the strategic objectives of the NPSD.



Principle 22: Communication procedures and standards

An FMI should use, or at a minimum accommodate, relevant internationally accepted communication procedures and standards in order to facilitate efficient payment, clearing, settlement and recording.

The SARB, as the SADC-RTGS operator, observes Principle 22.

The SADC-RTGS uses internationally accepted message standards and communication protocols with participants and system operators. The SWIFT FIN service, which is compliant with ISO 15022 standards, is utilised for the messaging. The SADC-RTGS will migrate to the new ISO 2002 messaging standard in October 2023. While the SADC-RTGS will continue to use MT messages (ISO 15022), a translator will be used to convert MX (ISO20022) messages received from the participants to MT to enable settlement. Similarly, messages sent from the SADC-RTGS to the participants will be converted from MT to MX. The SADC-RTGS supports the appropriate internationally accepted standards for the communication of financial instructions. All message formats comply with the SWIFT and ISO messaging standards.



Principle 23: Disclosure of rules, key procedures and market data

An FMI should have clear and comprehensive rules and procedures, and should provide sufficient information to enable participants to have an accurate understanding of the risks, fees and other material costs they incur by participating in the FMI. All relevant rules and key procedures should be publicly disclosed.

The SARB, as the SADC-RTGS operator, observes Principle 23. With special reference to key consideration 5, the SADC-RTGS as an FMI has now completed a third CPMI–IOSCO disclosure framework.

The SARB recognises the need for transparency and appreciates the need for participants to fully comprehend the risks of participating in the settlement service. To facilitate this, the SARB as the SADC-RTGS operator maintains comprehensive rules and procedures which are made available to the members and, where appropriate, to the public.

The documents that contain the system rules and procedures include the following:

- a. the SADC-RTGS service agreement, including the SADC-RTGS Operational Procedures and Service Level Manual as an addendum.
- b. the SADC-RTGS settlement agreement.
- c. BCP documents; and
- d. the SADC Payment System Business Processes and Related Document Manual (SADC BA Beige Book).

The procedures and rules can be discussed at industry meetings (e.g., of the SADC PSMB, SSPG and/or the User Group conference) and participants can raise issues for clarification. Compliance checks are done on an ad hoc basis. In cases where the documents are being reviewed, feedback received is considered during decision-making before a final document is adopted and published.

There is no defined process for changing the rules and procedures of the system, other than any changes to the rules must be approved by the CCBG or the SADC PSOC. In practice, as mentioned earlier, changes to the rules and procedures are consulted with the participants via the SADC PSMB, SSPG or the User Group conference. In addition, the SADC-RTGS operator regularly undertakes business relationship management meetings (formerly known as country visits) and holds meetings with regional operators and participating banks' formations.



Communication to participants is done through the CCBG and SADC BA websites. However, except for some high-level documents, the key documents that comprise SADC-RTGS rules and procedures are not disclosed to the public.

The SARB, as the SADC-RTGS operator, provides monthly data on the volumes, the values, the incident reports (where relevant), the number of participants and the list of participants to the SADC PSOC country leaders, the SADC PSMB, and the SADC Secretariat. Some of the information on participation is published on the CCBG website.

On its website, the SARB makes public (in English) a significant amount of information about itself and its subsidiaries, bank supervision services and regulations, certain market data, regulatory and oversight information (including details on the NPS oversight framework), and speeches delivered by the Governor of the SARB and other counterparties to the South African NPS. The SARB also publishes all relevant regulatory consultation documents, governance information, annual reports, risk frameworks, best practices, and press releases.

The SADC Secretariat publishes information about the FIP performance matrix in the SADC FIP Monitoring and Evaluation Report. The information is also shared with the SADC member states, the European Union and FinMark Trust.

The SADC payment system project maintains a payment system statistical database which gathers and provides information about the status of the payment system in the SADC member states. The information is provided by the central banks and is then made available to the general public and other interested parties.



Principle 24: Disclosure of market data by trade repositories

A trade repository (TR) should provide timely and accurate data to relevant authorities and the public in line with their respective needs.

Principle 24 is not applicable to the SADC-RTGS as an FMI.

