

Principles for Financial Market Infrastructures (PFMI)
Public Disclosure for the Southern African
Development Community
Real-Time Gross Settlement (SADC-RTGS) System
Self-Assessment 2025

31 March 2025



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Where to find further information	Telephone no.: +27 12 313 4622 Email address: SADC-RTGS-CSC@resbank.co.za

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

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2.0	31 March 2021	Submitted to the Oversight Division in the National Payment System Department of the SARB
3.0	31 March 2023	Third disclosure document for the FMI against the CPMI PFMI; submitted to the Oversight Division in the National Payment System Department of the SARB
4.0	31 March 2025	Forth disclosure document for the FMI against the CPMI PFMI; submitted to the Oversight Division in the National Payment System Department of the SARB



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Abbreviations

ACH	automated clearing house
AGM	annual general meeting
BA	Banking Association
BanservAfrica	BankservAfrica (Pty) Limited
BCM	business continuity management
BCP	business continuity plan
BIS	Bank for International Settlements
BOC	business operations centre
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 Unit
CMA	Common Monetary Area
COMFI	Committee of Ministers for Finance and Investment
CPL	continuous processing line
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payment and Settlement Systems
CSC	Customer Support Centre
CSD	central securities depository
DR	disaster recovery
DVP	delivery versus payment
EFT	electronic funds transfer
EOD	end-of-day
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



IATI	intra account transfer instruction
ICT	information and communication technology
IOSCO	International Organization of Securities Commissions
ISO	International Organization for Standardization
LSD	Legal Services Department
NACH	national automated clearing house
Nedcom	Non-executive Directors' Committee
NKP	national key point
NPS	national payment system
NPS Act	National Payment System Act 78 of 1998, as amended
NPSD	National Payment System Department
PASA	Payments Association of South Africa
PFMI	Principles for Financial Market Infrastructures
POC	proof of concept
PS	payment system
PSMB	payment system management body
PSOC	Payment System Oversight Committee
RCH	Regional Clearing House
RCS	regional clearing system
RCSO	regional clearing and settlement system operator
Remco	Remuneration Committee
RMC	Risk Management Committee
RMCD	Risk Management and Compliance Department
RnC	Risk and Compliance unit of the NPSD
RTGS	real-time gross settlement
RTL	real-time line
SA	South Africa
SADC	Southern African Development Community
SADC-RTGS	Southern African Development Community Real-Time Gross Settlement (system)
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
SFA	strategic focus area
SI	settlement instruction



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
TOM	target operating model
TR	trade repository
ZAR	South African rand



Glossary

Term	Definition
beneficiary participant	A SADC-RTGS participant whose account in the SADC-RTGS system 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 relates.
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. a 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 system) 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 system.
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.



Term	Definition
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.
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 system 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 system 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 system operator.
settlement instruction	An instruction given to the SADC-RTGS system 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	An automated interbank settlement system provided to SAMOS participants by the SARB, including all the technical infrastructure and business components thereof, operated by the SARB.
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 2024.

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) as well as 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 system as at 31 March 2025.

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 2026. 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 2025

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 to as the SADC-RTGS system or just SADC-RTGS). The SADC-RTGS system 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 system 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 fourth PFMI disclosure framework that the SARB has completed for the SADC-RTGS following the previous disclosure that was published on 31 March 2023.

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 system 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, meaning 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 in, 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 South African Reserve Bank Group (SARB Group) Risk Management Policy.

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

Assessment category	Assessment of Principle - 2022	Assessment of Principle - 2024
Observed	1, 2, 3, 7, 8, 9, 13, 15, 18, 22, 23	1, 2, 3, 7, 8, 9, 15, 18, 22, 23
Broadly observed	17, 21	17, 21
Partly observed		13
Not observed		
Not applicable	4, 5, 6, 10, 11, 12, 14, 16, 19, 20, 24	4, 5, 6, 10, 11, 12, 14, 16, 19, 20, 24

Figure 1: Assessment of Principle per category

ASSESSMENT OF PRINCIPLES 2024

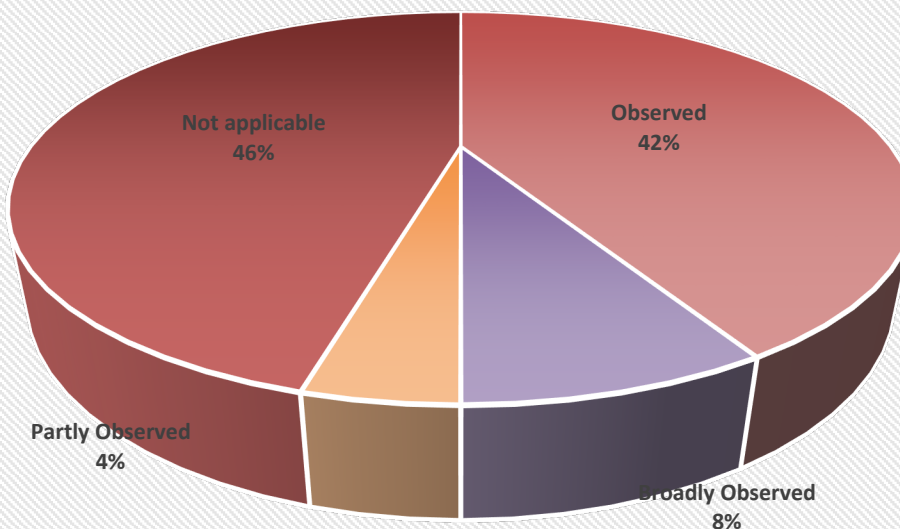


Table 2 - Summary per assessment category

Principle	Description	Applicable	Observed	Broadly observed	Partly Observed	Not Applicable
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.	Yes	✓			
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.	Yes	✓			
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.	Yes	✓			
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 central counterparty (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.	No				✓
Principle 5:	An FMI that requires collateral to manage its or its participants' credit	No				✓



Collateral	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 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.	No				✓
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.	Yes	✓			
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.	Yes	✓			
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.	Yes	✓			
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.	No				✓
Principle 11: Central securities depositories	A central securities depository (CSD) should have appropriate rules and procedures to help ensure the integrity of securities issues and 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.	No				✓
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.	No				✓
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.	Yes			✓	
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.	No				✓
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.	Yes	✓			
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.	No				✓
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 the timely recovery of operations and fulfilment of the FMI's obligations, including in the event of a wide-scale or major disruption.	Yes		✓		



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.	Yes	✓			
Principle 19: Tiered participation arrangements	An FMI should identify, monitor and manage the material risks to the FMI arising from tiered participation arrangements.	No				✓
Principle 20: FMI links	An FMI that establishes a link with one or more FMIs should identify, monitor and manage link-related risks.	No				✓
Principle 21: Efficiency and effectiveness	An FMI should be efficient and effective in meeting the requirements of its participants and the markets it serves.	Yes	✓			
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.	Yes		✓		
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.	Yes	✓			
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.	No				✓

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

- 2.1 Regarding the regulatory framework, the rules of participation that impact on the operation of the SADC-RTGS have been amended to include participation by non-banks as approved by the SADC PSOC.
- 2.2 The Governor of the SARB has approved the revocation of the old name of the system, being the 'Southern African Development Community (SADC) Integrated Regional Electronic Settlement System (SIRESS)', and the designation of the system to the '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 include the following:
 - a. the implementation of the SADC-RTGS migration to the ISO 20022 messaging standards in June 2024;
 - b. the implementation of the extension of its operating hours on weekdays from



00:01 to 16:25 CAT; and

- c. the implementation of version 4.2 business operational enhancements, covering:
 - (i) the suppression of insufficient funds notification.
 - (ii) an auto-pull and auto-sweep function for batch processing; and
 - (iii) an automated return of funds on SADC-RTGSWeb.

Table 3: Notable events for the SADC-RTGS system

SADC-RTGS notable events

Event number	Date	Description
1	May 2009	CCBG approves proceeding with a SADC regional settlement system.
2	October 2010	CCBG approves to undertake the Proof of Concept (POC) in the CMA region.
3	April 2013	CCBG approves the legal agreements. CMA Governors sign the agreements.
4	July 2013	SADC-RTGS goes live in Lesotho, Namibia, South Africa and Swaziland.
5	July 2013	The first SADC-RTGS customer payment is settled.
6	April 2014	SADC-RTGS Phase II goes live in Malawi, Tanzania and Zimbabwe.
7	September 2014	SADC-RTGS Phase III goes live in Mauritius and Zambia.
8	October 2014	The SADC-RTGS settlement schedule is extended to 16:00.
9	29 April 2015	R1 trillion is settled from inception.
10	September 2015	A peak of R99 billion is reached.
11	September 2015	Batch settlement functionality to process batched settlement instructions is implemented
12	October 2015	A peak of 25 000 transactions is reached.
13	November 2015	SADC-RTGS Version 3.0 is implemented.
14	November 2015	SADC-RTGSWeb is implemented.
15	6 April 2016	R2 trillion is settled from inception.
16	July 2016	The Seychelles goes live.
17	October 2016	Angola, Botswana and Mozambique go live.
18	November 2016	The Democratic Republic of Congo goes live.
19	November 2016	A peak of R104 billion is reached.
20	18 November 2016	SADC-RTGS Version 4.0 is implemented.
21	December 2016	A peak of R108 billion is reached.
22	March 2017	A peak of R109 billion is reached.
23	March 2017	A peak of 27 000 transactions is reached.
24	March 2017	R3 trillion is settled from inception.
25	August 2017	A peak of R120 billion is reached.
26	August 2017	A peak of 27 500 transactions is reached.
27	August 2017	SADC-RTGS Version 4.1 is implemented.
28	October 2017	A peak of 28 800 transactions is reached.
29	November 2017	A peak of 30 400 transactions is reached.
30	December 2017	R4 trillion is settled from inception.
31	February 2018	A total of 1 million transactions is settled,
32	July 2018	SADC-RTGS turns five years old.
33	October 2018	R5 trillion is settled from inception.
34	July 2019	R6 trillion is settled from inception.
35	October 2019	A monthly peak of 32 976 transactions is reached.



36	May 2020	R7 trillion is settled from inception
37	February 2021	R8 trillion is settled from inception
38	March 2021	A monthly peak of 33 079 transactions is reached.
39	March 2021	A peak of R132 billion transactions reached
40	November 2021	A monthly peak of 34 374 transactions is reached
41	December 2021	A monthly peak 35 472 transactions is reached
42	December 2021	A peak of R133 billion is settled
43	December 2021	R9 trillion is settled from inception
44	March 2022	A monthly peak of 38 564 transactions is reached
45	March 2022	A peak of R146 billion is reached.
46	August 2022	A monthly peak of 39 811 transactions is reached
47	November 2022	A peak of R160.93 billion is reached.
48	March 2023	A monthly peak of 41 691 transactions reached
49	March 2023	A peak of R199.43 billion is reached
50	August 2023	A monthly peak of 46 036 transactions reached
51	November 2023	A peak of R223 billion is reached
52	Jun 2024	Migrated to the ISO 20022 messaging standard
53	July 2024	A monthly peak of 53,601 transactions is reached
54	September 2024	CMA transactions went live

3. General background on the FMI

3.1 General description of the FMI and the market it serves

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

The SADC-RTGS settles single settlement instructions between participating banks and 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. an 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 December 2024:

Figure 2: Settlement values – January 2023 to December 2024

Total transactions amount

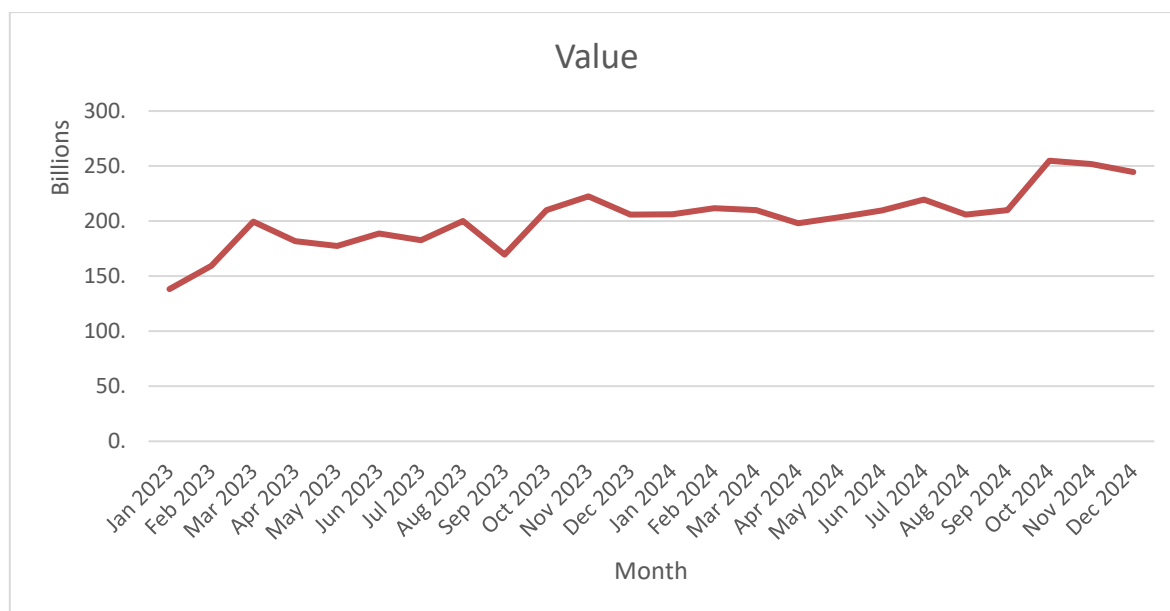


Figure 3: Settlement volumes – January 2023 to December 2024

Total number of transactions

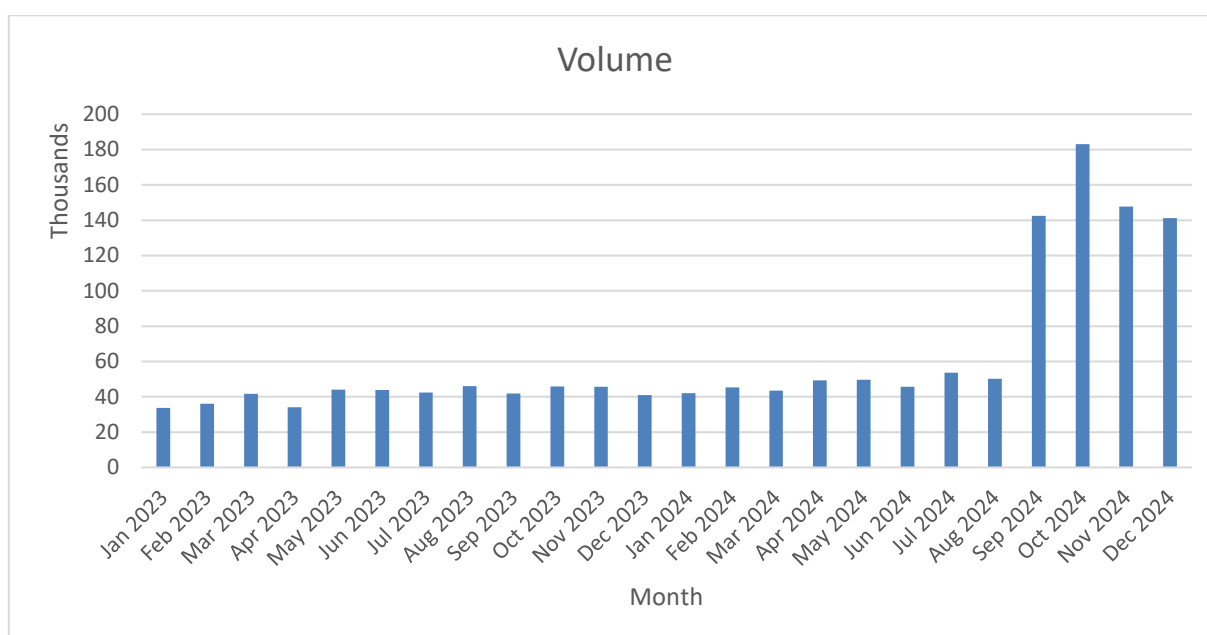


Figure 4: Combined volumes and values – January 2023 to December 2024

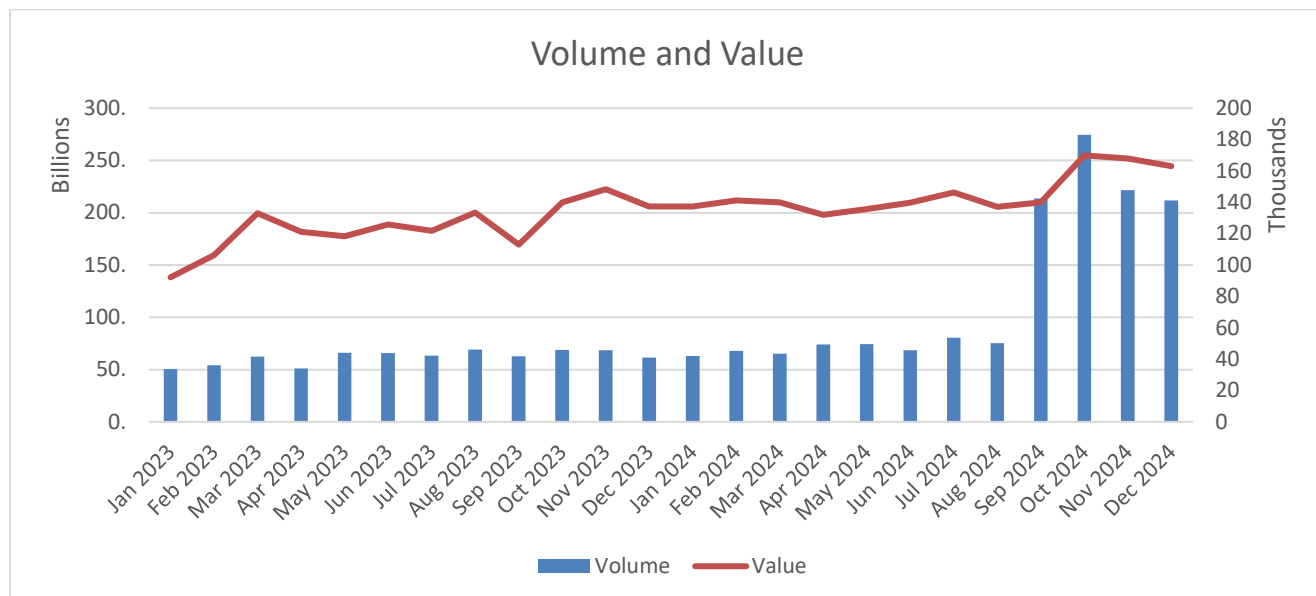


Table 4: Combined volumes and values – year on year

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	1,228,662,089,155.6
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
2023	496,115	2,236,100,698,252.93
2024	993,640	2,625,797,239,569.32
Grand Total	4,290,886	15,695,075,715,897.1

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 operations 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.
- 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, as amended (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, as amended (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

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



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 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.

A 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 system, is executed between the SADC-RTGS participants.

3.4 SADC-RTGS system design and operations

The SADC-RTGS has been designed to utilise a 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

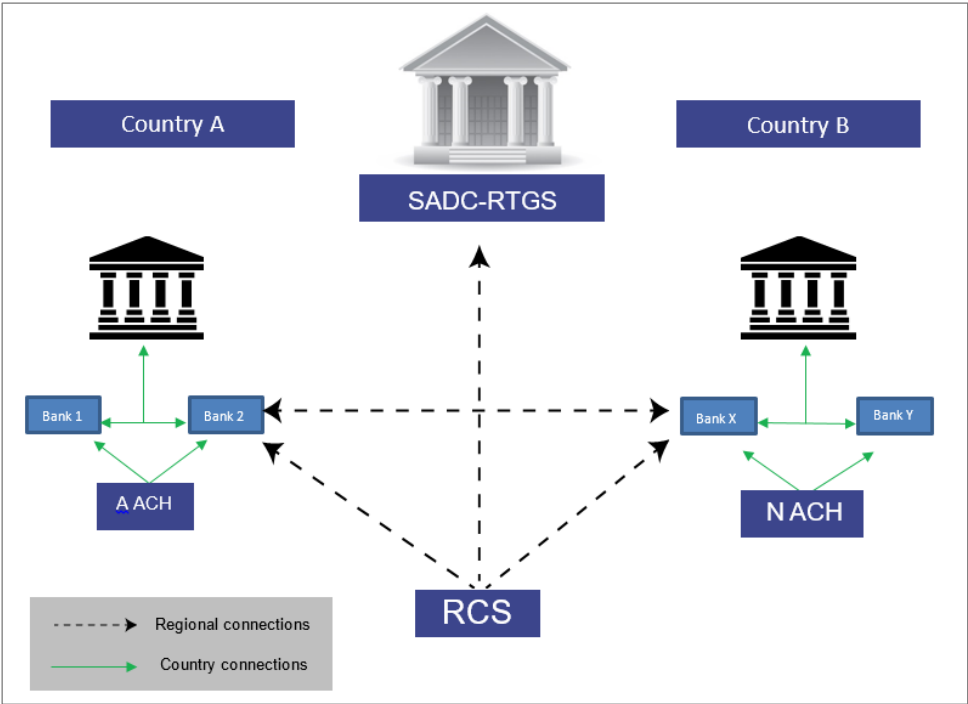


Figure 6: SADC-RTGS systems interfaces

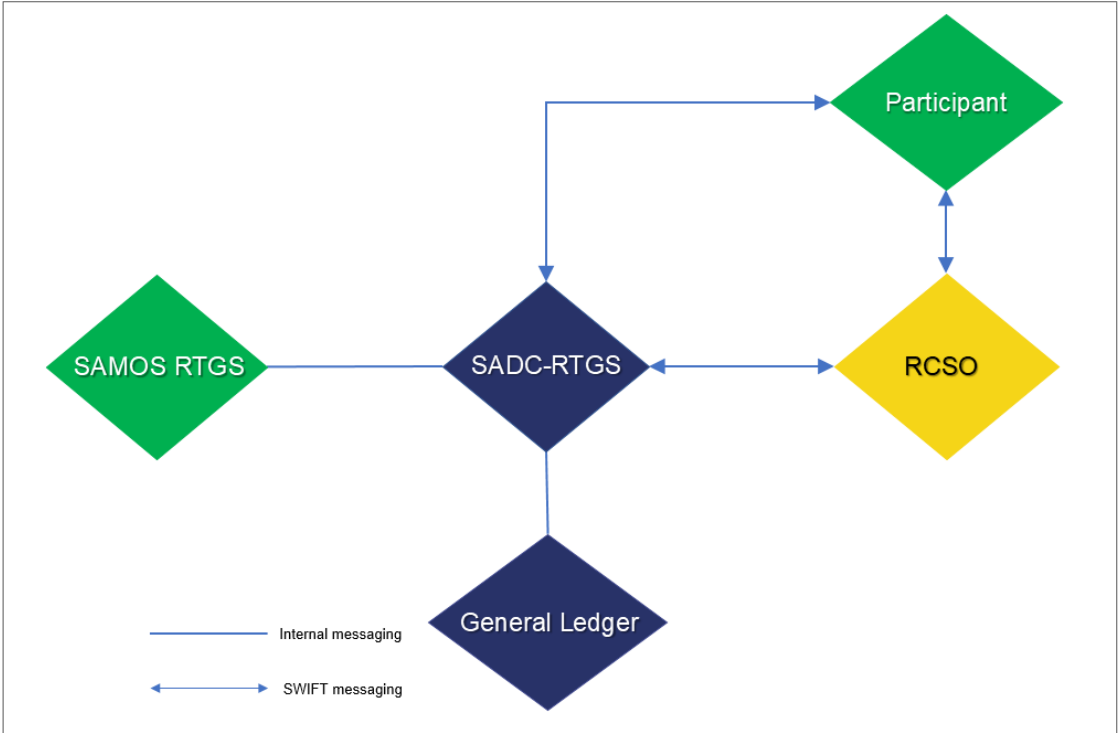


Figure 7: SADC-RTGS settlement model example with countries and participant banks

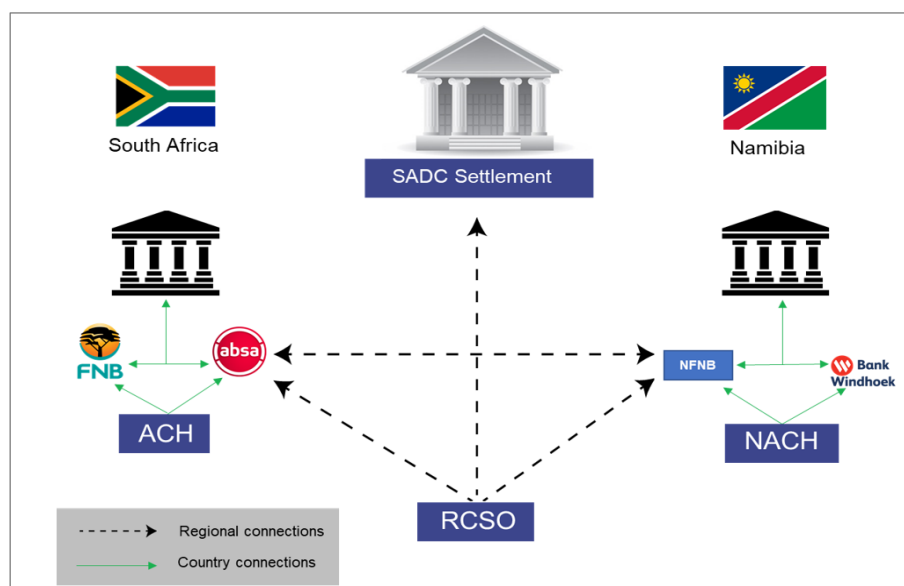
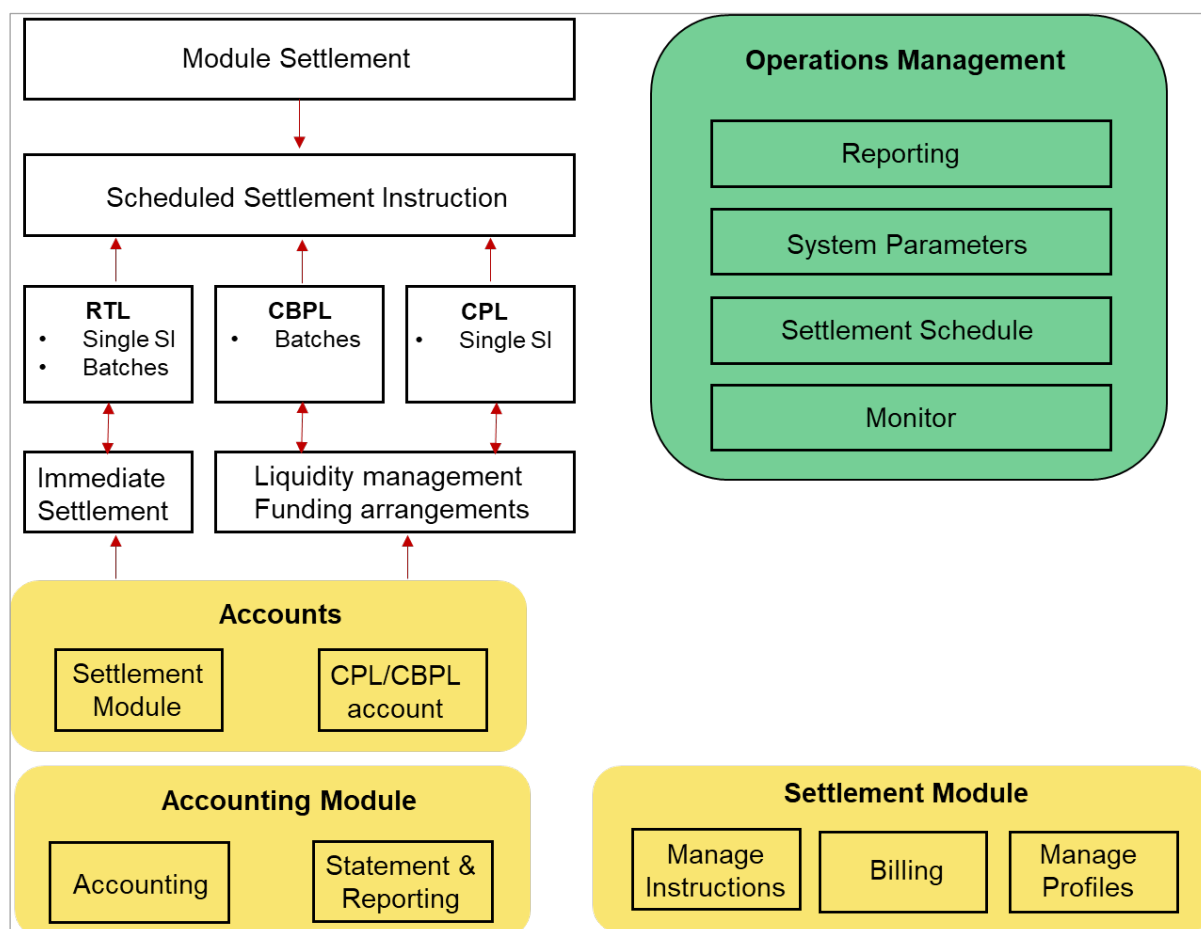


Figure 8: SADC-RTGS logical view



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 operational notice and an information notification message. The components of the SADC-RTGS system include the following:

- a. Settlement schedule
 - i. The SADC-RTGS settlement schedule is currently based on a five-days-a-week, sixteen-and-a-half-hours-a-day settlement system. It is divided into different windows that determine operational times.
 - ii. The settlement schedule for the SADC-RTGS is currently closed on weekends (i.e. Saturdays and Sundays) as well as on South African public holidays. However, the system is undergoing enhancements to open on Saturdays. The settlement schedule was recently updated for weekdays for Window 3 to be extended by 25 minutes, ending at 16h25.
 - iii. An example of a business day settlement schedule in a 24-hour cycle is as follows:

Table 5: SADC-RTGS system default settlement schedule

Window 1	Window 2	Window 3	Finalise Window	Position Window	Night Window	Start of new CSD
00:01 - 07:00	07:01 - 12:00	12:01 - 16:25	16:25 - 16:30	16:30 - 16:55	16:55 - 00:00	00:00 - 00:01
○ Funding ○ Normal settlement ○ Return of Funds ○ IATI – SA – CPL ○ SADC-RTGS charges + interest settled	○ Funding ○ Normal settlement ○ Return of Funds ○ IATI – SA – CPL	○ Funding ○ Normal settlement ○ Return of Funds	F I N A L I S E W I N D O W	○ End of day (EOD) ○ Settlement Instruction only ○ Return of Funds	○ No Settlement Activity ○ Enquires and Statements	○ GL update ○ Settlement cycle day roll over ○ SADC-RTGS charges and applicable interest calculated and posted to participant accounts



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 and 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 there is no sufficient liquidity, the instructions are queued until a predetermined time when the whole batch will be discarded if no liquidity is provided.

c. Collateral management

The SADC-RTGS does not offer collateral facilities as not credit is extended to participants. Participants' accounts must be prefunded for the settlement instructions to settle successfully.

d. Accounting

Each participant in the SADC-RTGS has one settlement account and a CPL account. The net movement of participants' 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 the participants.



- ii. All reports and enquiries are shown from the SARB's accounting perspective (e.g. credits and debits, statements, and interest paid). Central banks, as regulators, can draw reports from the SADC-RTGSWeb application to view the business operations and positions of the participants within their jurisdictions.
 - 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 recovers its operational costs 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 participants and central banks is provided by the SADC-RTGS Business Operations Centre (BOC) previously known as the Customer Support Centre (CSC). The BOC team is available to monitor the system during business hours to ensure an uninterrupted service is always delivered.

⁶ <https://www.resbank.co.za/en/home/what-we-do/payments-and-settlements/SADC-RTGS>



3.5 Steps taken to address the broadly observed Principles

Table 6: Steps taken to address the broadly observed Principles

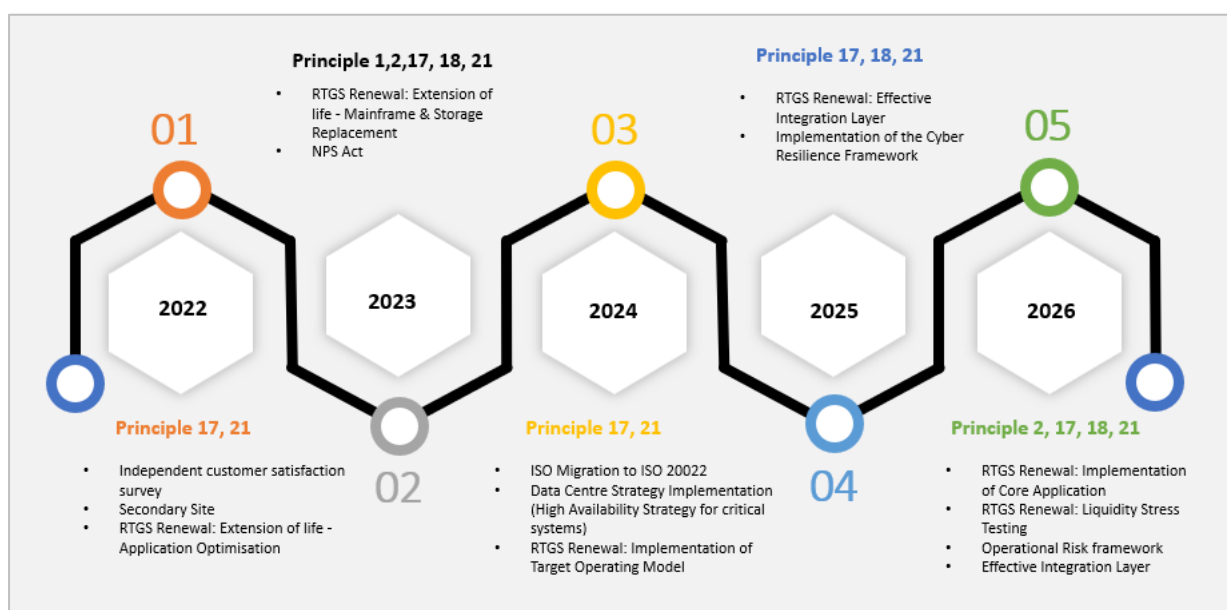
Principle	Category	Steps taken to address the broadly observed Principles
17	Broadly observed	The SADC-RTGS operator has taken the following steps: 1. The SADC-RTGS operator has taken the following steps: 2. Drafting of the Cyber resilience framework. 3. Implement and conduct assessment of the framework by an external party. 4. The drafting of the operational risk management framework. 5. Initiated implementing system stress testing. 6. Replaced the mainframe to prolong the lifespan of the current RTGS system. 7. Implemented an effective integration layer. 8. Initiated the process to implement Target Operating Model and architectures. 9. Embarked on the PEM Programme to replace the current RTGS system to ensure operational efficiency and to address any potential risks.
21	Broadly observed	1. The SADC-RTGS has implemented the ISO 20022 migration. This is part of the RTGS Renewal Programme which will provide the RTGS system with services that increase resilience and provide wider access, increased interoperability and improved user functionality. 2. The SADC-RTGS operator implemented the customer satisfaction survey and appointed an independent service provider to conduct the anonymous survey every 2 years. 3. The inclusion of the SADC countries' currencies for settlement on the system



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.

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 of South Africa in the interest of balanced and



Therefore, the provision of settlement services is supported by a well-established legal 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, as amended, 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 several 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 endorsement 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.

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.

⁸ See the National Payment System Act 78 of 1998, as amended.

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



Section 5(2) of the NPS Act states that: “A settlement that has been effected in 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 system rules, procedures and contracts

The SADC-RTGS system 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 Payment System Management Body (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 system. The reviewing of rules, procedures and contracts is always subject to legal opinion and confirmation from the relevant legal bodies (e.g. the Legal Subcommittee of the CCBG and the Legal Services Department (LSD) of the SARB). Furthermore, the FMI operator also considers any comments or proposals 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.

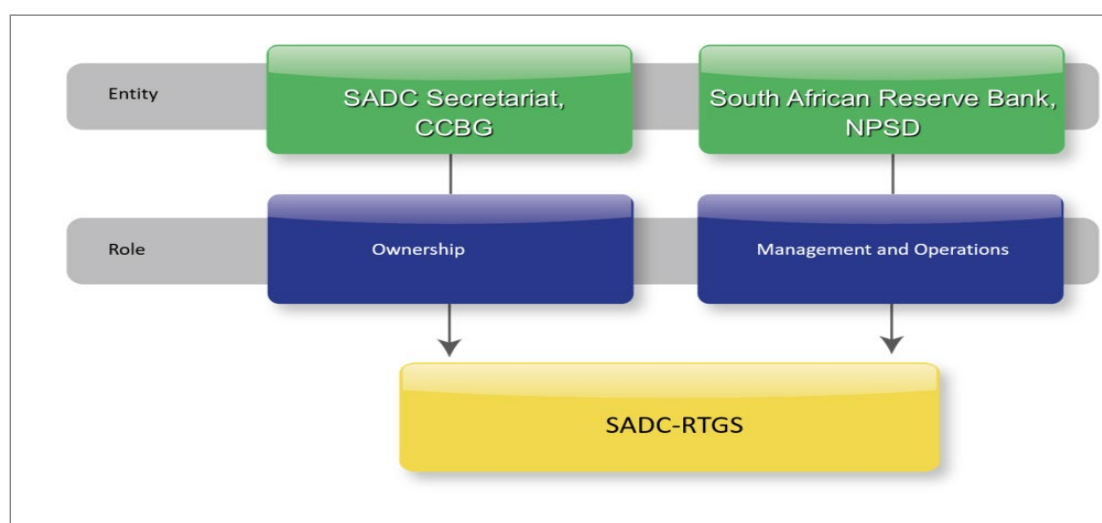
The SARB, as the SADC-RTGS operator, observes Principle 2.

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 to '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: Promote 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 NPSD is to ensure the safety and efficiency of the NPS in South Africa. The strategic intent of NPSD's 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.

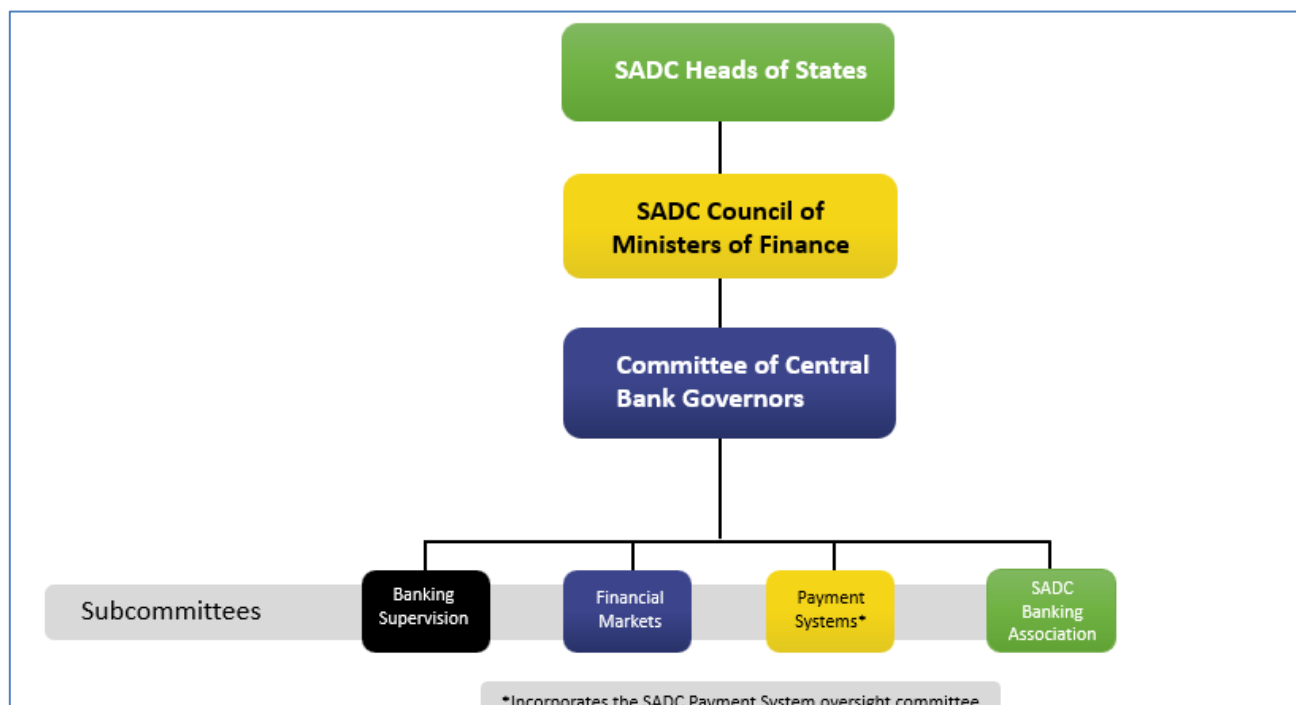
2.2. Governance arrangements

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). COMFI, the 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 (PSS) 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.

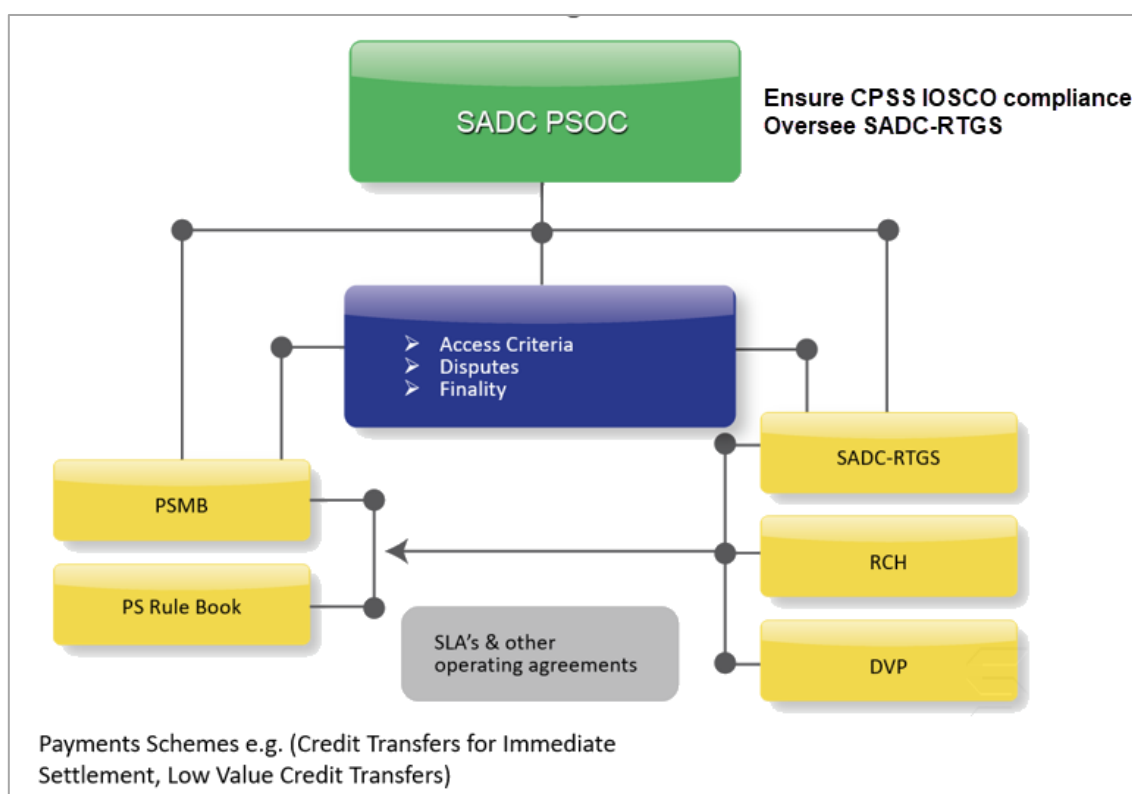


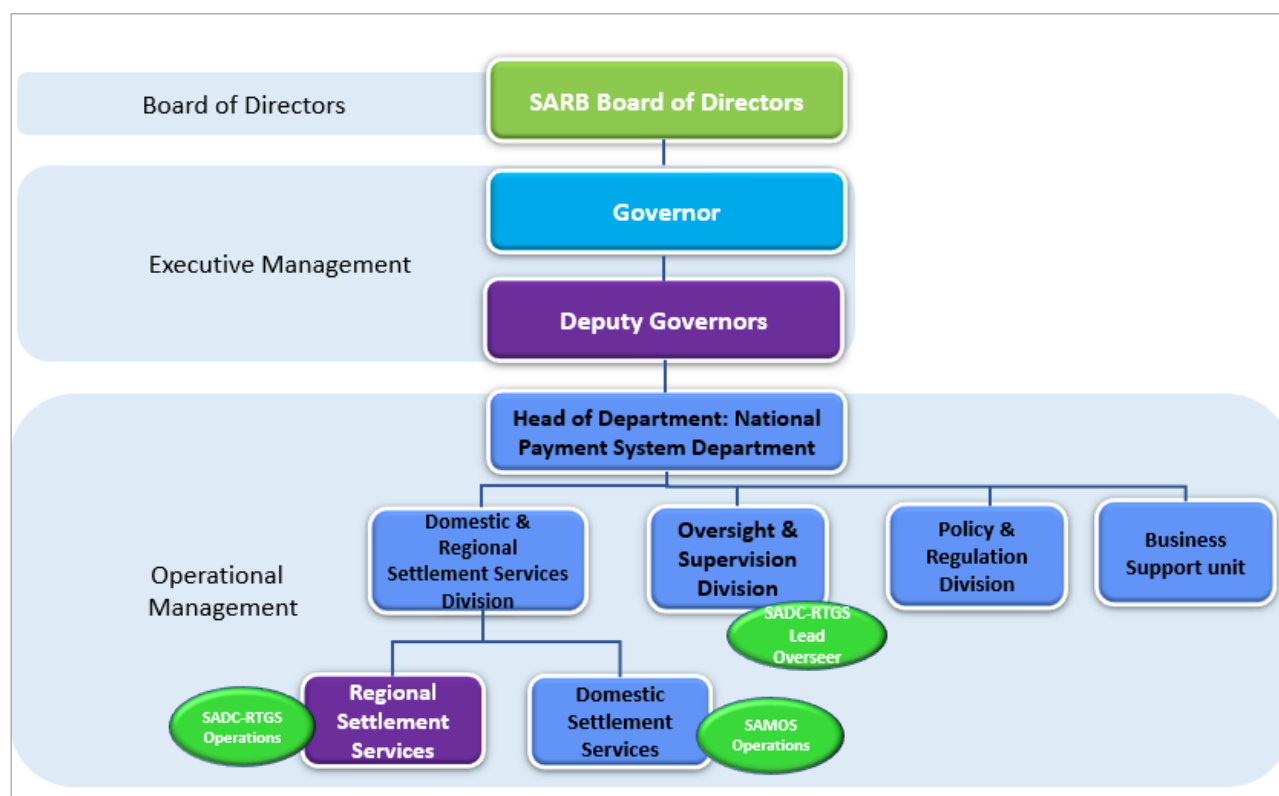
Figure 12: SADC PSOC governance arrangements

The top authority of the SARB is the SARB Board. The Governor is the Chairperson of the SARB Board. The operations and management of the SADC-RTGS delegated 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 NPSD is depicted in the diagram below:

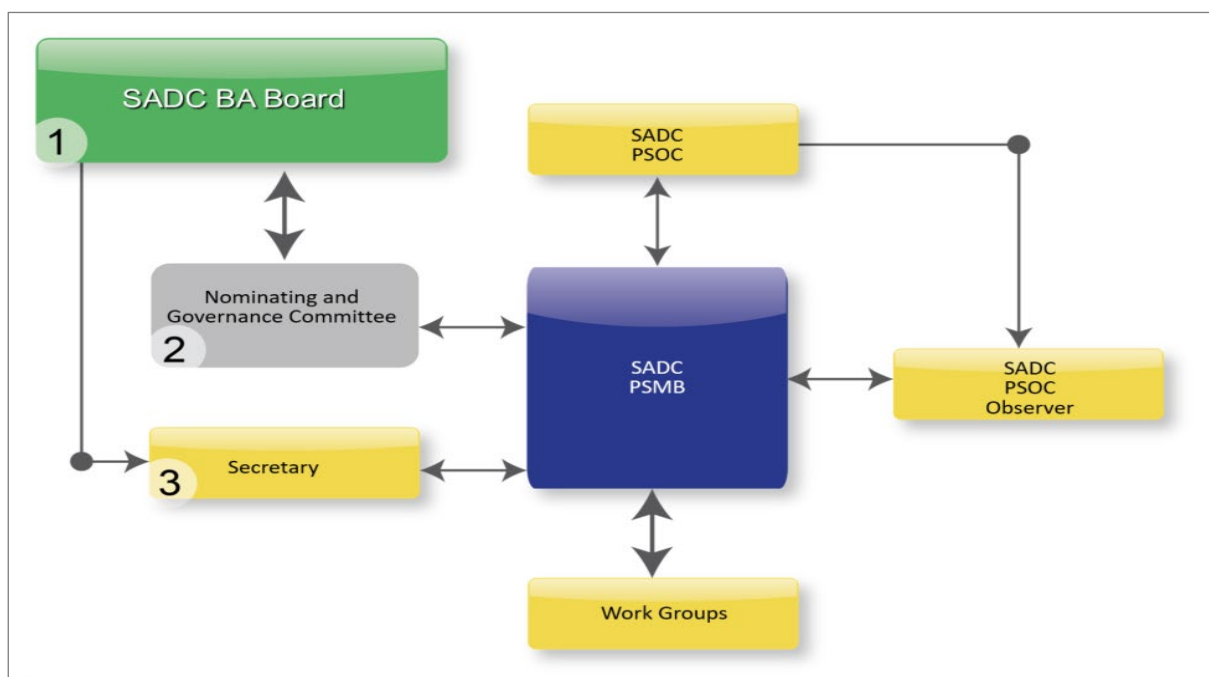
Figure 13: NPSD governance structure



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 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 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

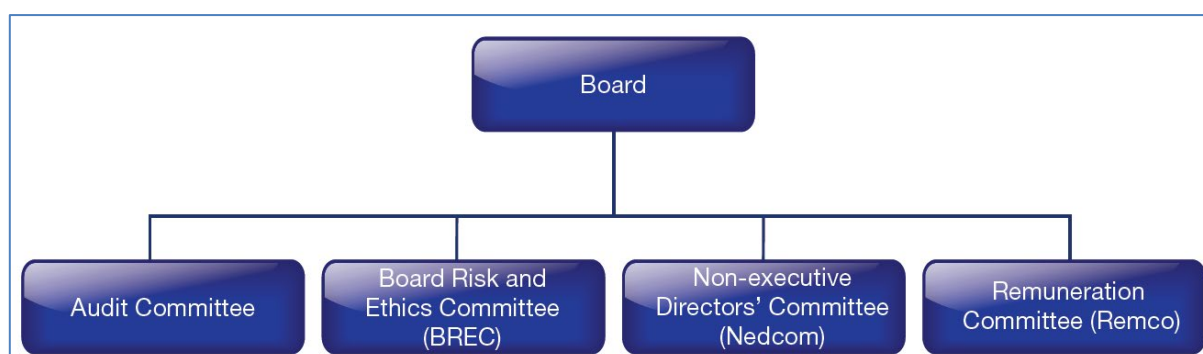
The SARB Board is a unitary body that functions in terms of the SARB Act and a Board Charter. The terms of reference of the Board Charter and of all the committees are reviewed every three years, unless otherwise required. The SARB's internal governance arrangements are deemed applicable for every aspect of the daily operation of the SADC-RTGS. Section 4A of the SARB Act, as amended, 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, the Secretary of the SARB and the Assistant Secretary of the SARB. All non-executive directors are members of this committee.

The Remuneration Committee (Remco) reviews the SARB-wide framework for human resources, the remuneration policies and practices for the Governor and Deputy Governors, as well as 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

¹¹ See the SARB's *Annual Report 2023/2024*, available at www.resbank.co.za under Publications\Reports\Annual Reports.



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

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

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 the NPS delegates to the Head of NPSPD and the management team concerning the SADC-RTGS system. 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 Resources 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 at least every five years by the Risk Management and Compliance Department (RMCD) and presented for consideration to the Risk Management Committee (RMC), GEC and to BREC. This policy sets out the non-financial risk tolerance of the SARB Group.

The FMI's 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 is developing an operational risk management framework which will allow for the proactive management of operational risks in the FMI environment.

2.9. Authority and independence of the 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 BREC. The SADC-RTGS operator is responsible for the 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, conduct audits on the controls, systems and processes of the SADC-RTGS system.

2.10. Identification and consideration of stakeholder interests

The SADC-RTGS operator 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 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 management meetings with the in-country participants throughout the year. The aim is to meet with the central bank and participants in a joint meeting. The operator also holds one-on-one meetings with participant institutions to obtain their feedback, and assist them with business and technical issues they may be experiencing. A report of these meetings is prepared and sent to the respective country leaders within the SADC structures, and the SADC PSOC. 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/she 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 through the Operational Notices issued by the operator, and 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 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, and all 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.

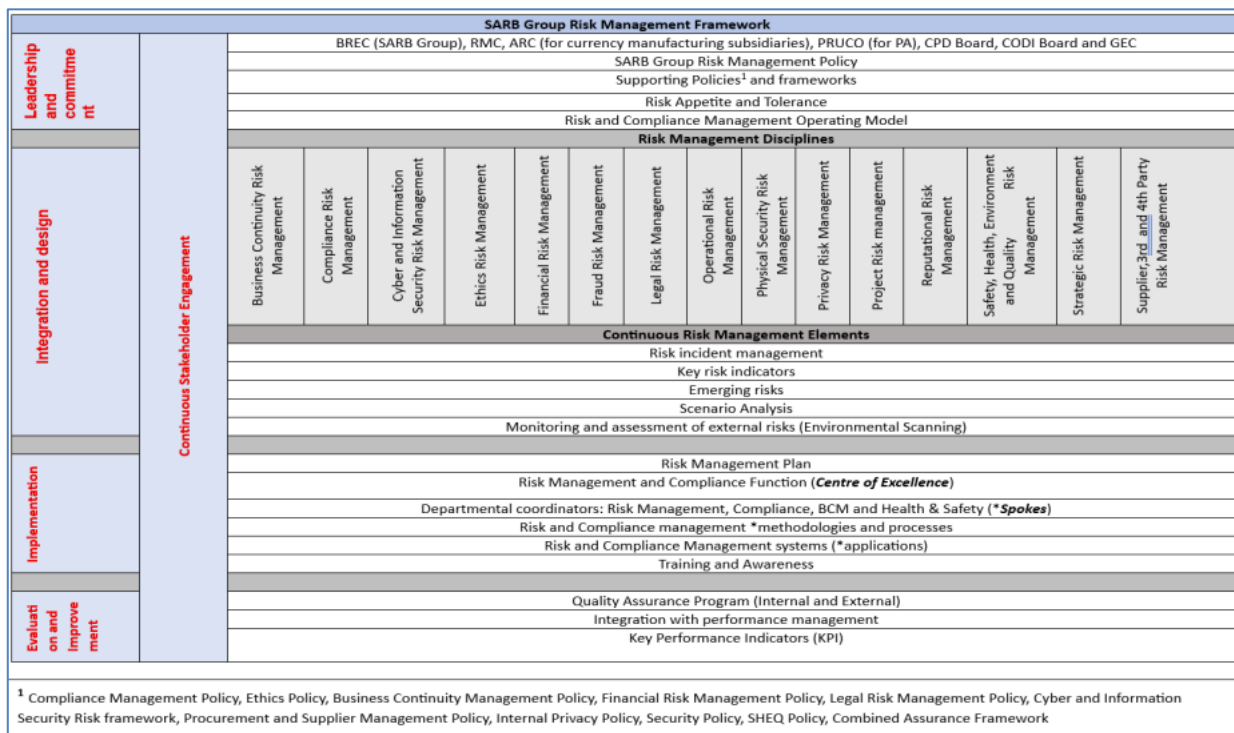
3.1. Risks that arise in, or are borne by, the FMI

The types of risks 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



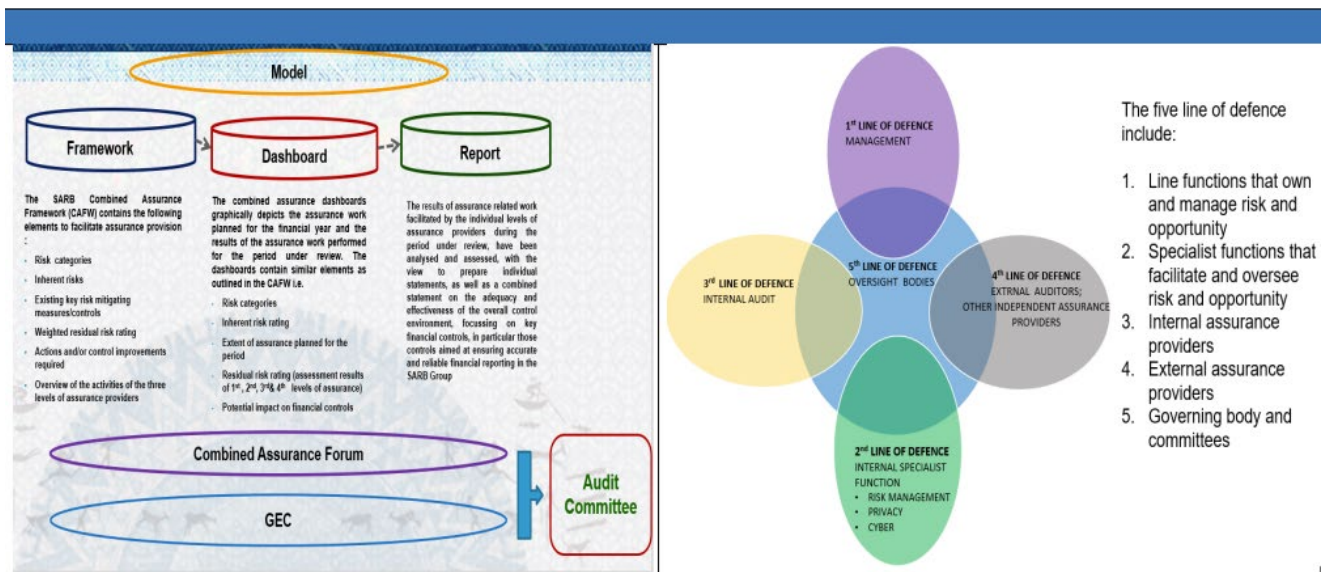
¹² See the SARB's *Annual Report 2023/2024*, available at www.resbank.co.za under Publications\Reports\Annual Reports.



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.

Figure 17 - SARB Combined Assurance Model



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 (SLAs) and memorandums of understanding are completed with relevant stakeholders to manage the risks emanating in their environment and in the FMI's operations.

A risk management system is used to record incidents, risks and controls, including those of the FMI. NPSD also uses a 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 RMCD to develop and maintain risk management systems and processes. Procedures are developed by 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 channelled 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 on the SADC-RTGS liquidity. Reliance on SWIFT as the only message network carrier might pose a material risk to the FMI's operations. NPSD participates in the review of strategic and operational risks facilitated by RMCD and the RnC on an annual basis.

3.5. Risk management tools

The risk management system and the NPS call-logging system are used to log 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 SLAs



established between the operator and interconnected stakeholders. The IAD conducts audits on the tools used by NPSD for effectiveness and adequacy.

3.6. Scenarios that may prevent the 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 RMCD. Among other things, the scenarios identified include the loss of the primary information and communication technology (ICT) infrastructure, the 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 system as it is operated by a 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 system as an FMI.

Regarding credit extensions to participants, the SADC-RTGS does not offer any credit extensions to participants and therefore does not offer any collateral facilities to participants. 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 system as an FMI.

Regarding collateral arrangements, the SADC-RTGS does not offer any collateral facilities as no credit facilities are offered to participants. 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 system 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 RSCO 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. If there is insufficient liquidity in the participant's account, the instructions are queued until a predetermined time when the instruction will be discarded if no liquidity is provided.

The SADC-RTGS system as an FMI does not act as a liquidity provider, nor does it hold liquidity in its own name, and therefore does not bear liquidity risk. Liquidity is held in each participant's own account in the system, which makes it the responsibility of the participant to ensure that 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 SADC-RTGSWeb front-end application. The FMI does not offer any collateral or additional liquidity, 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 2025, the SADC-RTGS did not have any links to a central counterparty (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 participants' 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 settlement cycle 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 SADC through 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 and SADC-RTGS participants.

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 settlement participant. Settlement in SADC-RTGS occurs in central bank money. Although the SADC-RTGS has been enhanced to be a multi-currency settlement system, it currently settles only in the South African domestic currency, the rand (ZAR).

The SADC-RTGS system does not settle in commercial bank money. Settlement instructions are settled across prefunded SADC-RTGS accounts, and the FMI is therefore 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 being 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 settlement. The FMI is a prefunded system; 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 system 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 system 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 system 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 system 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 system has been designed with the functionality that does not provide 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 for the SADC-RTGS operator, the RCSO and the participants to follow in the relevant SADC payment scheme when one or more participants fail to ensure that their accounts in SADC-RTGS have sufficient funds to meet their interbank settlement obligations 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 SADC-RTGS system 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 system as an FMI. The requirement to hold ring-fenced liquid net assets funded by equity to cover business risk and support a recovery or 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 that service fees are appropriate to cover all operational costs (i.e. direct costs, including capital expenditure, and some of the indirect costs). The costs 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 in place 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 system 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 system operator, broadly 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 NPSD which provides for a systematic, structured and transparent approach to managing operational risks in the FMI. Operational risks in the FMI are 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 system 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 a risk tracker to allow 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 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 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 within the NPSD operations in their 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 practice 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 skills set, knowledge and human capacity of the FMI staff are 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.

Any changes impacting on the FMI's operations, whether directly and indirectly, must follow the 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.

RMCD coordinates the entire risk management process in the SARB and reports to the GEC and other relevant risk oversight structures. Responsibility for day-to-day operational risk management lies with the line departments. The FMI operator provides the first line of defence, 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 the IAD. This audit also covers the arrangements that the FMI has with participants. All of 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 BSTD in managing incidents and ensuring that the agreed service levels



and recovery time objectives are maintained. This procedure also allows for a multidisciplinary approach in managing incidents that negatively impact on other processes and/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 security, 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's Group Security Management Department establishes processes, structures and technologies to provide continuous situational awareness in terms of any 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.

Internal and external auditors perform regular audits 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 (BCM) 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, BCM is supported by NPSP's Operational Risk Management Framework, and more specifically by NPSP's 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 important SADC-RTGS operations should be less than two hours. It also specifies the recovery procedures in case of 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 centre and a secondary business office for the FMI's operations. The business continuity arrangements in place provide for the monitoring and support function for the FMI's operations to take place at dual sites (i.e. primary and secondary sites). Critical teams for the FMI's 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 system operator also has 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/or 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 case of 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. SLAs with penalty clauses are in place with service providers to protect critical services. The SARB's BCP document is reviewed annually to ensure that risks are mitigated with adequate processes and procedures.

17.11. Risks posed to other FMIs

The risks identified are managed through an SLA entered into with each interdependent FMI. Any changes to the FMI processes and systems are discussed with the 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 SLAs 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 system operator, observes Principle 18.

18.1. Participation criteria and requirements

Participation in the SADC-RTGS system is open to SADC central banks, any financial institutions that are participants in their domestic RTGS system and endorsed 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 PSOC has given powers to the SADC PSMB to draft access criteria requirements for clearing and settlement system operators that provide their clearing services for regional cross-border transactions to SADC-RTGS participants as well as the settlement of the resulting positions in the SADC-RTGS.

There are participation criteria for the FMI 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 the participation of financial institutions under its jurisdiction in the SADC-RTGS.

As at 31 December 2024, the SADC-RTGS system had one RCSO and a total of 87 direct participants comprising SADC central banks and commercial banks.

18.2. Disclosure of participation criteria

The SADC-RTGS system has open and transparent participation criteria which are 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 SADC-RTGS system operator has published the 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

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 with the participation requirements for the participants that fall under their jurisdiction.

18.4. Suspension and orderly exit

The SADC-RTGS stakeholders' agreement provides that a member country's central bank may terminate its agreement to appoint the SARB as the SADC-RTGS operator. A central bank terminating its participation in the SADC-RTGS would automatically impact on the participation in the SADC-RTGS by institution in the central bank's country of origin.

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

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-RTGS operator 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 system as tiered participation is not allowed in the SADC-RTGS.

The SADC-RTGS system does not have tiered participation arrangements. The SADC-RTGS 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 the direct and indirect participants in the SADC-RTGS; the sponsoring bank must therefore manage the risks borne by such arrangements.

Principle 20: FMI links

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

Principle 20 is not applicable to the SADC-RTGS system 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 system operator, broadly observes Principle 21.

The SADC-RTGS was specifically designed to effectively and efficiently improve and address settlement risk in the 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 system 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 practice, innovations in the market, participating members' business needs and demand for new features, and 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 the 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 providing technical and business support to participants.

The objective of the SADC-RTGS User Group conferences is for the SADC-RTGS operator to meet with the participants and the rest of the stakeholders annually to discuss the SADC-RTGS operator's performance, the 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's availability is paramount. NPSD therefore has a service standard with BSTD which includes areas of minimum service levels, risk management expectations and business priorities.



Monthly operational and statistical reports are provided to the NPSD management team as well as the SADC PSOC country leaders and designees. These reports are 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, which covers functionality and technology, occurs every five years. In February 2020, SARB executives approved the RTGS Renewal Programme to examine the core systems, as well as the Target Operating Model and relevant architectures of the SADC-RTGS system. This project will be conducted over several years and will align with the strategic objectives of NPSD. The Target Operating Models have been completed, and the SADC-RTGS system will be replaced within the SARB's Payment Ecosystem Modernisation Programme.



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 system operator, observes Principle 22.

The SADC-RTGS system uses internationally accepted message standards and communication protocols with participants and system operators. The SADC-RTGS migrated to the new ISO 20022 messaging standard in June 2024. While the SADC-RTGS continues to use MT messages, a translator is used to convert MX messages (ISO 20022) received from the participants into MT, to enable settlement. Similarly, messages sent from the SADC-RTGS to the participants are converted from MT to MX. The SADC-RTGS supports 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 system operator, observes Principle 23.

With special reference to key consideration 5, the SADC-RTGS as an FMI has now completed the fourth 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 participants 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. the schedules to the SADC-RTGS settlement agreement;
- d. BCP documents; and
- e. the SADC Payment System Business Processes and Related Document Manual (SADC BA Beige Book).

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

Any changes to the rules or procedures must be approved by the CCBG or the SADC PSOC. In practice, as mentioned earlier, changes to the rules or procedures are consulted with the participants via the SADC PSMB, the SSPG or the User Group conferences. In addition, the SADC-RTGS system operator regularly undertakes business relationship management meetings (formerly known as 'country visits') and holds meetings with regional operators and participants' formations.



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

The SARB, as the SADC-RTGS operator, provides monthly data on the volumes, values, incident reports (where relevant), 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) as well as 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 practice 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.

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 system as an FMI.

