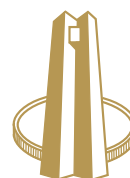


**Annual Oversight Report**  
**National Payment**  
**System Department**  
**2015/16**



**South African Reserve Bank**

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This issue of the *Annual Oversight Report, National Payment System Department* focuses mainly on the 12-month period ending March 2016. However, selected developments up to the date of publication are also reported on. Data may include own calculations made for the purposes of this publication.

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## Foreword

The national payment system (NPS) is a key pillar to the smooth functioning of a financial system. It is therefore crucial that the NPS is stable, safe and efficient and that potential risks are adequately addressed through appropriate and robust oversight arrangements.

Oversight over the payment processes and systems should cover all the tools, technical systems, mechanisms, institutions, agreements, procedures, rules and laws applied or utilised to effect payment. This process requires that all participants, systems and instruments be identified, monitored, regulated and supervised. Through the oversight function, issues of the payment system industry are evaluated against set objectives, and initiatives are facilitated to develop and implement outcomes that will assist in mitigating payment, clearing and settlement risk. As a catalyst for change within the payment environment, the South African Reserve Bank (the Bank) advocates for a transparent and accountable approach to oversight.

The Twin Peaks financial sector regulatory reforms continue to drive changes in the financial sector regulatory environment. The Financial Sector Regulation Bill, which is in the process of being tabled in Parliament, will establish the required structures and make the necessary arrangements for purposes of implementing the objectives set out in the Bill.

The Bank embraced the Principles for Financial Market Infrastructures released by the Committee on Payments and Market Infrastructures and the International Organization of Securities Commissions in 2012. These international standards provide universal guidelines and promote the design and operation of safe and efficient financial market infrastructures (FMIs). These also outline revised responsibilities for authorities that oversee FMIs. These responsibilities provided greater emphasis on transparency and accountability. In the Bank's effort to disclose its activities, with specific focus on its payment system oversight activities, it is embarking on the publication and sharing of various documents, of which this report is one. Other publications that will be released in the near future will include strategic documents such as the, The National Payment System Framework and Strategy: Vision 2025, and the National Payment System Department Oversight Framework.

As in previous years, this third edition of the annual *National Payment System Department Oversight* Report provides feedback on the execution of the Bank's mandate relating to the national payment system, and an overview of the main oversight activities and initiatives during the reporting period. As active collaboration with stakeholders and role players is vital in addressing issues in this industry, the Bank relies on these relationships for the successful implementation of these initiatives.

I am hopeful that our approach provides the required guidance, insight and perspective on important policy decisions to our payment industry stakeholders.

**F E Groepe**  
**Deputy Governor**  
**South African Reserve Bank**

## A. Introduction and overview

### 1. Background

The purpose of this *Annual Oversight Report* is to provide an overview of the key activities of the National Payment System Department (NPSD) of the South African Reserve Bank (the Bank), as the overseer of the South African national payment system (NPS), during the period April 2015 to March 2016.

### 2. Regulatory environment

The South African Reserve Bank Act<sup>1</sup> (SARB Act) authorises the Bank 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 payment, clearing or settlement systems”.<sup>2</sup>

Aligned to this mandate in the SARB Act is the enabling legislation, the National Payment System Act<sup>3</sup> (NPS Act), which aims to “provide for the management, administration, operation, regulation and supervision of the payment, clearing and settlement systems in the Republic of South Africa; and to provide for connected matters”.<sup>4</sup> The authority to perform these functions within the Bank has been assigned to the NPSD.

### 3. Oversight approach, scope and framework

According to the Bank for International Settlements (BIS), “oversight is a central bank function whereby the objectives of safety and efficiency are promoted by monitoring existing and planned payment, clearing, settlement and related arrangements, assessing them against these objectives and, where necessary, inducing change”.<sup>5</sup>

The Bank formally established its oversight function<sup>6</sup> in 2001 to cater for the domestic payment system, taking cognisance of international developments and best practices. The oversight of the NPS spans the entire process of effecting a payment, which entails all aspects, from enabling a payer to make a payment by means of issuing a payment instruction and utilising a payment instrument such as a debit or credit card, to the beneficiary who is the receiver of the funds.

Oversight arrangements have in the past primarily focused on the participation of registered banks and operators in the payment system. However, the Bank recognises the participation and importance of non-banks in the payment system and, as such, measures have been implemented to bring non-banks within the regulatory sphere.

During the period under review, the Bank developed an oversight framework outlining, among other things, the Bank’s objectives and approach to payment system oversight. The framework is based on the domestic legal and regulatory framework, and was benchmarked against international best practices, including oversight frameworks of other payment system overseers. It is envisaged that the oversight framework will be published before the end of 2016.

<sup>1</sup> 90 of 1989, as amended.

<sup>2</sup> Section 10 (1) (c) of the SARB Act. See [www.resbank.co.za/About Us/Legislation](http://www.resbank.co.za/About Us/Legislation).

<sup>3</sup> 78 of 1998.

<sup>4</sup> See the National Payment System Act at [www.resbank.co.za/Regulation and supervision/National Payment System \(NPS\)/NPS Legislation](http://www.resbank.co.za/Regulation and supervision/National Payment System (NPS)/NPS Legislation).

<sup>5</sup> Available at <http://www.bis.org/cpmi/publ/d68.pdf>.

<sup>6</sup> A document titled *Oversight of the South African national payment system* is available at [www.resbank.co.za/Regulation and supervision/National Payment System \(NPS\)/Oversight](http://www.resbank.co.za/Regulation and supervision/National Payment System (NPS)/Oversight).

## B. 2015/16 oversight activities

### 4. The Vision 2025 document for the national payment system

In June 2015 the Bank initiated a project to develop a vision for the national payment system in a set future time horizon. This process culminated in The National Payment System Framework and Strategy: Vision 2025 document (Vision 2025) after several months of consultation between the Bank and all relevant stakeholders. During this consultation process, the commercial banks, non-bank participants, other regulatory bodies, government and other departments in the Bank presented their proposals, concerns and ideas for the future NPS to the Bank.

The fourth iteration of its kind, Vision 2025 maintains the long-standing principles of consultation and retains several structural elements of the previous versions. However, as necessitated by the slow advancement of innovation at a payments platform level and repeated requests during the consultation process, the Bank has taken the lead in setting strategies and goals for the next ten years. The execution and/or implementation of Vision 2025 will continue to be the joint responsibility of the Bank, the various structures in the Payment System Management Body (PSMB) and other relevant payment industry stakeholders.

The Bank will set the overall public interest objective, facilitate the process, keep track of progress and provide guidance where necessary. Consequently, Vision 2025 is more explicit in terms of the expectations of the industry and the Bank itself.

The Bank, in its role as overseer, acts in the interest of the NPS as a whole and used this premise in the assessment of all stakeholders' input to formulate Vision 2025. Additionally, the Bank chose to focus exclusively on payments platform-level innovations and strategic initiatives that require the collaborative efforts of the payment industry stakeholders.

Vision 2025 reflects ten themes covering areas to be pursued by the Bank and the South African payments industry. These themes are reflected below in Figure 1

Figure 1: Vision 2025 themes





The themes set out South Africa's path to a safe, efficient, modernised and accessible national payment system that meets both domestic and international requirements and benefits all South African citizens. The order of the themes does not signal the order of importance or prioritisation. Each theme sets out its own vision, principles, strategies and critical success factors.

The prioritisation, planning and execution of the individual strategies will be undertaken by the Bank and payment system participants. The National Payment System Strategy Body (NPSSB) will be used as a structure to prioritise and initiate the execution of the various strategies outlined in the document. It is envisaged that Vision 2025 will be published before the end of 2016.

## 5. The Twin Peaks model and its impact on the National Payment System Department

Considerable progress has been made in concluding Phase 1 (first phase) of the Twin Peaks regulatory reforms, particularly with regard to the tabling of the Financial Sector Regulation Bill (FSR Bill) in Parliament during the second half of 2015. The FSR Bill provides, among other things, for the regulation and supervision of 'payment service' provision by the Financial Sector Conduct Authority (FSCA)<sup>7</sup> in an attempt to address the conduct issues that have an impact on customers in the payment environment. However, the FSCA will be required to seek the concurrence of the Bank in respect of the issuance of conduct standards for the regulation and supervision of payment services providers.

The FSR Bill further assigns responsibility to the Bank for the assessment of compliance with international standards by market infrastructures (securities and derivatives financial market infrastructures (FMIs)). These will include assessments of market infrastructures against the Committee on Payments and Market Infrastructures (CPMI) and the International Organization of Securities Commissions' (IOSCO) Principles for Financial Market Infrastructures (PFMIs). This role was previously performed by the Financial Services Board (FSB).

The FSR Bill further provides that the Prudential Authority (PA) will assume the responsibility for the prudential regulation and supervision of securities and derivatives FMIs as well as securities services providers. In addition, the FSR Bill provides an explicit mandate for financial stability to the Bank. In particular, the FSR Bill designates the Bank as the institution responsible for maintaining and promoting financial stability in South Africa. For this purpose, clause 30 of the FSR Bill authorises the Bank, through the PA, to set macroprudential standards in respect of systemically important financial institutions (SIFIs).

On the effective date of the FSR Bill, and if no substantial changes are effected to the above-mentioned provisions, the Bank will remain the regulator, supervisor and overseer of the broader NPS and payment FMIs. The FSCA will be responsible for the conduct regulation of payment services providers which will include the setting of standards, albeit with the concurrence of the Bank.

During the reporting period, the Bank continually engaged National Treasury and the FSB on the FSR Bill and its implications on the broader NPS, the specific role that will be played by the FSCA in the NPS, and the necessity of a memorandum of understanding to be concluded between the Bank and the FSCA to ensure coordinated regulation of payment services providers. It is envisaged that the FSR Bill will be promulgated in 2016 or early in 2017.

<sup>7</sup> Currently called the Financial Services Board (FSB), but envisaged to become the Financial Sector Conduct Authority (FSCA).



The second phase of regulatory reforms will comprise the harmonisation of specific financial sector legislation, such as the NPS Act with the Financial Sector Regulation (FSR) Act. A process was also initiated to identify areas of alignment between the FSR Bill and the NPS Act for incorporation into the NPS Amendment Bill.

## 6. National Payment System Act review

During the year under review, the NPSD initiated a project to review the NPS Act. The key drivers of this review were, among other things, the consequential amendments arising from the FSR Bill, payments industry stakeholder proposals, recommendations from the 2014 South African Financial Sector Assessment Program (FSAP) report, the need for a firm legal foundation to support the adoption of PFMI, and other domestic and regional payment industry developments.

The review aims to ensure the relevance of the NPS Act, to align the NPS Act with international standards and best practices, and to provide an enabling environment for the achievement of public policy objectives. The governance structures for the review process were established during the reporting period. These include the Standing Committee for the review of the NPS Act, established in terms of section 15 of the NPS Act, as well as its supporting substructures. The inaugural meeting of the Standing Committee took place on 14 March 2016 and work relating to the review process is under way.

## 7. Financial Market Infrastructure Policy Framework

The Bank has developed a draft 'Financial Market Infrastructure Policy Framework' paper. The purpose of the paper is to review the current regulatory, supervisory and oversight framework for payment, securities and derivatives FMIs in South Africa, and to make policy recommendations on the most appropriate FMI regulatory framework.

The paper highlights the key drivers of the development of the FMI policy framework, namely provisions in the FSR Bill, the FSAP recommendations, adoption of international standards (i.e. incorporation of the relevant principles as contained in the PFMI) as well as the Bank's strategic objective of ensuring the implementation of measures for the effective supervision, regulation and oversight of FMIs. The paper was drafted through engagement by the NPSD with the PA and the Financial Stability Department of the Bank as the future regulators and/or stability overseers of the FMIs in accordance with the FSR Bill. It is envisaged that the paper will be finalised before the end of 2016.

## 8. Financial Action Task Force: directive in respect of the FATF Recommendations

The Bank published Directive 1 of 2015 titled 'Directive for conduct within the national payment system in respect of the Financial Action Task Force (FATF) recommendations for electronic funds transfers'<sup>8</sup> on 26 June 2015. The purpose of the directive is to provide a domestic legal framework for the implementation of FATF Recommendation 16 and to ensure compliance by participants with the directive in respect of electronic funds transfers (EFTs). The framework is therefore aimed at addressing the concern of the possible use of the NPS to facilitate money laundering and terrorist financing. During the year under review, the Bank worked closely with the payment industry stakeholders on the implementation of the directive and will continue to do so during the next financial year.

<sup>8</sup> Available at [www.resbank.co.za/RegulationAndSupervision/NationalPaymentSystem\(NPS\)/Legal/Documents/Directives](http://www.resbank.co.za/RegulationAndSupervision/NationalPaymentSystem(NPS)/Legal/Documents/Directives).

## 9. Payments Association of South Africa governance review

The Bank recognises the Payments Association of South Africa (PASA) as a PSMB established with the objective of organising, managing and regulating the participation of its members, who are clearing and settlement participants, in the NPS.

During 2015/16, the Bank initiated a project to review the effectiveness of PASA in fulfilling its role and, as part of the process, developed and consulted the payment industry stakeholders on the 'Review of the effectiveness of the Payments Association of South Africa' paper. The main purpose of the paper was to review PASA's effectiveness and to assess its adequacy and robustness in fulfilling its PSMB mandate as provided for in the NPS Act and to make recommendations for improvement where appropriate. Stakeholder input received through this process was taken on board and recommendations emanating from the review were finalised. The implementation process of these recommendations will commence during the second half of 2016.

## 10. Principles for Financial Market Infrastructures

### 10.1 PFMI implementation monitoring by CPMI-IOSCO

The CPMI and IOSCO set up an Implementation Monitoring Standing Group (IMSG) to design, organise and carry out implementation monitoring assessments of jurisdictions' efforts in implementing the PFMI. The IMSG is specifically responsible for reviewing the progress made by jurisdictions towards adopting the legislation and other policies that will enable them to implement the PFMI.<sup>9</sup> Importantly, the PFMI support the design and operation of resilient, safer and more efficient FMIs.<sup>10</sup> The IMSG publishes its assessment reports on the BIS website when these are completed. Regular updates of the assessments are also conducted and published to ensure that all the jurisdictions implement the PFMI in a full, timely and consistent or harmonised manner.

The monitoring process has three levels which assess whether:

Level 1: jurisdictions have completed the process of adopting the legislation and other policies to implement the PFMI within their regulatory framework;

Level 2: the adopted measures are complete and consistent with the PFMI; and

Level 3: there is consistency in the outcomes arising from the implementation of the PFMI.

South Africa was assessed as a jurisdiction in respect of Level 1, and the subsequent updates thereto were undertaken during the period 2014–2016. The initial report of the Level 1 assessment was published in August 2013, the first update of the Level 1 assessment report was published in May 2014, and the second update was published in June 2015. The third update to the Level 1 assessment is to be completed in 2016. The outcome of these assessments is favourable and may be found in the published BIS CPMI paper.<sup>11</sup>

South Africa has not yet been subjected to Level 2 assessments as the current focus of these assessments has been on jurisdictions with large global multicurrency central counterparties (CCPs) and trade repositories (TRs).

Finally, South Africa was assessed as a jurisdiction in respect of Level 3, with the initial report published in November 2015. The Level 3 assessment focuses on the implementation

<sup>9</sup> Available at [www.bis.org/cpmi/](http://www.bis.org/cpmi/).

<sup>10</sup> The BIS defines an FMI as a multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, settling or recording payments, securities, derivatives or other financial transactions. In this definition, the five types of FMIs are (i) payment systems; (ii) central securities depositories; (iii) securities settlement systems; (iv) central counterparties; and (v) trade repositories.

<sup>11</sup> This paper is available at <https://www.bis.org/cpmi/publ/d145.htm>.



of the responsibilities for authorities in the PMFIs across all relevant FMIs within the assessed jurisdictions. The outcome of this assessment is favourable and may be found in the published BIS CPMI paper.<sup>12</sup>

## 10.2 Process followed by South Africa to monitor the implementation of PFMI

All the payment system FMIs within the South African jurisdiction were requested to complete and submit self-assessment reports to the Bank by July 2014. The assessment review process was an iterative process between the Bank and the relevant payment system FMIs.

The Bank reviewed and analysed these assessments for the year under review. This process included, but was not limited to, regular interaction with the payment system FMIs relating to their self-assessments and research relating to best practices in other jurisdictions with regard to how they undertake FMI assessments. The outcome of the assessments, as well as the proposed way forward with regard to the future assessment of the various payment system FMIs, will be communicated during the fourth quarter of 2016.

## 11. Interchange Determination Project

### 11.1 Phase 1

The Bank commenced with Phase 1 of the Interchange Determination Project<sup>13</sup> (IDP) in 2011. The objective of this phase was to assess the relevance of interchange for specific payment streams in the South African NPS.

Based on the findings of Phase 1, that interchange is a critical enabler of the payment infrastructure and the interoperability thereof, the Bank assumed responsibility for facilitating and overseeing a process for the review of interchange rates for the relevant payment streams in the NPS.

### 11.2 Phase 2

The Bank embarked on Phase 2 of the IDP in 2012 with the intended outcome being the facilitation of the determination of interchange rates for both the automated teller machine (ATM) and card payment streams. The revised interchange rates for ATMs were implemented in the NPS on 1 April 2014, and the revised card interchange structure and the revised card interchange rates were implemented in the NPS on 17 March 2015.

### 11.3 Phase 3

The primary objective of Phase 3, which commenced in 2014, was to provide stakeholders with a secure web browser that would allow them to submit interchange-related data to the Bank. Furthermore, the secure web browser would also be used by stakeholders to submit broader payment system-related data (i.e. NPS 100) that is used by the Bank for analysis. In August 2015, the Bank implemented the Payment Information Return (PAYIR) system for the specific purpose of collecting interchange and other payment system-related data securely. Data for 2014 were collected during September 2015 using PAYIR. Data for 2015 were collected during February/March 2016 and have been analysed. Revised interchange rates determined through this process for affected streams will be implemented before the end of 2016.

<sup>12</sup> This paper is available at <https://www.bis.org/cpmi/publ/d148.htm>.

<sup>13</sup> For more information relating to the IDP, see [www.resbank.co.za](http://www.resbank.co.za)>Regulation and supervision>National Payment System (NPS)>Interchange Determination Project.

## 12. Authenticated collections

### 12.1 Background and context

In 2006 South Africa developed and implemented an early debit order (EDO) collection system to ensure a fair collections environment for all stakeholders and to address undesirable market practices, such as inappropriate means of collecting debits (e.g. the retention of a customer's card and personal identification number (PIN)). The authenticated early debit order (AEDO) system provides an authentication mechanism using card and PIN technology, while the non-authenticated early debit order (NAEDO) system continues to utilise a paper-based or voice mandate.

The NAEDO system has grown at a steady rate since its implementation as it brings benefits to many markets and especially to customers from the lower living standards measure segment by ensuring that they have access to credit. While the benefits include better access to microcredit and other financial products, the disadvantages include an increased number of customer complaints relating to unauthorised debits and difficulty in identifying the collecting party that is debiting the customer's account. This has resulted in an increase in the number of disputes regarding these transactions compared to transactions that are processed using the traditional EFT debit order system. For NAEDO transactions, any questionable debit raised on a paying customer's account could result in a reversal of the transaction when a dispute is lodged with the paying bank by the customer. Customers have thus also contributed to the increase in these disputes by disputing genuine debit orders that they had granted authorisation for in order to manage their cash flow.

To protect both sides of the market (collectors and customers), the Bank issued terms of reference (ToR) for PASA and the relevant stakeholders to develop authentication options for EDOs. The options provided should give customers the opportunity to acknowledge upfront future-dated debits through an electronic authentication process. The main benefits of the enhancements of the new system include strengthening mandates and ensuring that a 'secure debit' is approved and undisputedly authenticated by the paying customer.

### 12.2 Development progress and the way forward

The payment industry engaged on the design of the Authenticated Collections (AC) system, with possible authentication options made available to users and customers that include electronic (non-card) and card-based options. Work is still under way and the initial implementation for the AC system is expected in the third quarter of 2017.

## 13. Biometrics

The development of a national biometric specification is considered an important first step towards achieving a national biometric customer verification method (CVM) standard, adopted and implemented on a voluntary basis within the Card Payments Clearing House. The payment industry has concluded the development and design of card specifications for an open, interoperable, national biometric authentication standard which will accommodate biometric as a CVM for card-present transactions in the South African market.

The acceptance specification was a joint effort by MasterCard International and Visa Inc. with the goal of becoming a global standard similar to EMV,<sup>14</sup> while the card specification

<sup>14</sup> EMV chip technology is a global standard for credit card and debit card payments and is named after its original developers (Europay, MasterCard and Visa). This technology features payment instruments (cards, mobile phones, etc.) with embedded microprocessor chips that store and protect cardholder data.



will remain proprietary to any participant that selects to incorporate biometrics as a CVM on the cards that they issue.

## 14. Virtual currencies

The Bank continued its collaboration with National Treasury, the Financial Intelligence Centre (FIC), the FSB and the South African Revenue Service (SARS) to determine an appropriate regulatory approach for virtual currencies.

An investor and consumer alert that was jointly issued in 2014 by the above-mentioned regulatory authorities as well as a position paper issued by the Bank in 2014 is still in place, and the Bank reserves the right to change this position should the situation warrant regulatory intervention. Accordingly, the Bank continually monitors developments relating to virtual currencies and the potential impact on the NPS.

In March 2016 the Bank established a multi-disciplinary task team to continue researching and reviewing international and domestic regulatory, supervisory and technological opportunities offered by block chain and distributed ledger technologies as well as risks emanating therefrom that could be linked to financial stability and sustainable economic growth. This could result in the development of a policy response pertaining to virtual currencies and distributed ledger technology by the Bank.

## 15. Remittances

The exchange control authority within the Bank, namely the Financial Surveillance Department, amended the Exchange Control Rulings in its circular titled 'Amendment to the Exchange Control Rulings' dated 22 July 2013. The circular makes provision for cross-border money transfer operators (MTOs) to provide money transfers without having to partner with registered banks, which implies that MTOs shall be regulated independently.

The key driver of this policy amendment is to improve access for customers, foster greater competition relating to cross-border remittances, and contribute to improved financial inclusion. It should also effectively contribute towards the reduction of the cost of cross-border money transfers in the South African remittance market.

In the absence of an equivalent policy position and regulatory framework for domestic remittances, bank partnership remains a prerequisite for the provision of domestic money remittance business by non-banks. During the reporting period, the Bank had ongoing engagements with National Treasury as well as other relevant authorities and parties on the possible creation of an enabling regulatory framework for domestic remittances. Further analysis and engagement is currently in progress and it is envisaged that a draft regulatory framework will be completed by the end of 2016.

## 16. Stakeholder management

### 16.1 Domestic

The Bank regularly interacts with National Treasury on various regulatory issues relating to the safety and efficiency of the NPS. Officials of the Bank also participate on various committees and working groups in the domestic environment.

The Bank, National Treasury and FSB continue to be involved in regular discussions relating to the planned implementation of the Twin Peaks regulatory reforms and, specifically, the impact thereof on the oversight arrangements for FMI's and the broader NPS.

### 16.1.1 Payments Association of South Africa

As provided for in the NPS Act, the Bank may recognise a PSMB established with the objective of organising, managing and regulating the participation of its members in the payment system. PASA is recognised as such a PSMB by the Bank.

One of the main responsibilities of PASA is to support the Bank in its role as overseer of the NPS by managing the clearing arrangements and rules applied to its members. In order to fulfil its oversight objectives on PASA, staff members of the Bank participate in various committees and working groups established by PASA.

### 16.1.2 National Payment System Strategy Body

The National Payment System Strategy Body (NPSSB) is an advisory body that draws its membership from various stakeholder groups within the NPS, with the objective of providing input into payment system policy development by the Bank.

At its meeting held on 29 August 2015, the NPSSB discussed, among other issues, the implications of the FSR Bill on the NPS, the IDP and the review of the collections process, as well as developments in the Southern African Development Community (SADC) regional payment system. Other additional items included the review of the NPS Act, the use of biometrics in the NPS and the establishment of a biometric standard, domestic and cross-border remittances, and Vision 2025. As stated earlier, proposals received from this structure are considered by the Bank as input into its policy development initiatives.

## 16.2 Regional

### 16.2.1 SADC Payment System Oversight Committee

The mandate of the SADC Payment System Oversight Committee (PSOC) is to regulate, oversee and supervise the operations of the SADC Integrated Regional Electronic Settlement System (SIRESS) as a regional payment settlement system. This structure is chaired by the Bank as the lead overseer. The number of cooperating SADC PSOC member central banks in this arrangement is ten, and it is expected to increase to 14 during the current year. As part of its work programme, the PSOC engaged in addressing issues pertaining to the development and operations of SIRESS, including aspects relating to the ramp-up of participation in the system.

In anticipation of the integration of the retail payment streams in SIRESS, BankservAfrica Limited was authorised as a regional clearing and settlement system operator by the SADC Payment System Management Body in June 2015 and its licence is subject to annual review.

## 16.3 International

The Bank has formed close relationships with and, from time to time, participates in various projects and initiatives coordinated by other international financial institutions, such as the BIS and Continuous Linked Settlement (CLS) Bank.

### 16.3.1 Continuous Linked Settlement system cooperative oversight

South Africa has been a member of the cooperative oversight arrangement for CLS Bank since the inclusion of the South African rand as a settlement currency in the CLS system in December 2004.

There are currently 18 eligible settlement currencies in the CLS system, with the Hungarian forint being the most recent currency that was on-boarded in November 2015. The central



banks whose currencies settle in the CLS system participate in a CLS Oversight Committee as part of a cooperative oversight arrangement of the CLS system, which is recognised as an FMI in South Africa. The Federal Reserve Bank of New York is the lead regulator of the CLS Bank and also the lead overseer of the CLS system. Under its chairpersonship, a cooperative central bank oversight arrangement has been set up and formalised through an oversight protocol and oversight guide.

On 9 November 2015, FirstRand Bank Limited, one of South Africa's clearing and settlement banks, became a CLS Bank settlement member, bringing the number of South African CLS Bank settlement members to two. This highlights the commitment by participants in the South African NPS to strengthen the safety and efficiency of the NPS through the participation in a system that optimises risk management for the global foreign exchange market.

### 16.3.2 Bank for International Settlements

Officials of the Bank are members of the CPMI of the BIS and regularly participate in various working groups of this structure.

The Bank participated in the task force created by the CPMI of the BIS and the World Bank Group (WBG) to analyse the role of payments and payment services in advancing financial inclusion.<sup>15</sup> The work of the task force culminated in the publishing of a final report after receiving input from the public consultation process. The report is premised on two key points: (i) efficient, accessible and safe retail payment systems and services are critical for greater financial inclusion; and (ii) a transaction account is an essential financial service in its own right and can also serve as a gateway to other financial services.

It is therefore envisaged that for financial inclusion to be realised, all individuals and businesses should be able to have access to, and use at least, one transaction account operated by a regulated payment service provider to:

- i. perform most, if not all, of their payment needs;
- ii. safely store some value; and
- iii. serve as a gateway to other financial services.

The report<sup>16</sup> identified key policy objectives for financial inclusion from a payment perspective and suggested a number of guiding principles and key actions that can be considered by central banks. These guiding principles will be further internalised within the South African perspective to form the basis for additional actions in the short term.

The *BIS Red Book*<sup>17</sup> is an annual publication of the BIS that provides statistics on payments as well as payment, clearing and settlement systems in CPMI countries. The Bank contributes statistics from the South African payment environment, which includes indicators of retail payment system developments, the usage of payment instruments, and wholesale systems used by participants.

The Bank also regularly provides input into, and reviews documents published by, the BIS to assist in shaping the regulatory framework in which it participates. The documents include publications on topics such as guidance on cyber resilience for FMIs, digital currencies, correspondent banking relationships, and so forth.

<sup>15</sup> The task force is known as the Payment Aspects of Financial Inclusion (PAFI).

<sup>16</sup> The final report is available at <http://www.bis.org/cpmi/publ/d144.htm>

<sup>17</sup> For the latest publication (2014 statistics), see <http://www.bis.org/publ/cpss116.htm>

## C. Domestic and regional settlement systems

### 17. Developments in the South African Multiple Option Settlement system

The Bank is in the process of evaluating a possible renewal of its existing real-time gross settlement (RTGS) solution for domestic settlements, namely the South African Multiple Option Settlement (SAMOS) system. This project is progressing well and according to plan. In order to formulate its strategy for the renewal of the current RTGS system deployed for SAMOS and SIRESS, the Bank needed to develop an understanding of the high-level capabilities of available RTGS options as well as the estimated implementation timelines and associated costs. The Bank, therefore, is currently engaging with solution providers with a proven track record in the supply and implementation of RTGS and related application software solutions.

Together with this project, the Bank is also considering a third-level contingency facility, and is working with industry stakeholders to get a clearer understanding on how the solution will work for SAMOS whereafter it will be in a position to conclude its proposals.

While these initiatives are under way, the Bank will not lose focus of the management and maintenance of the current system. As part of the maintenance process to ensure efficiency, a need was identified to review the billing process of the current system to increase efficiency, as the SAMOS Operator is mandated to bill participants with processing and other associated fees to ensure full operational cost recovery. These enhancements were implemented as part of release 7.4 of the system implemented on 4 October 2015. This release caters for the increased automation of billing to establish efficiencies in this process.

### 18. Developments in SIRESS

During the period under review, a number of operational projects to increase the efficiencies in the operations of SIRESS were completed. Among other things a reverse billing project was completed in April 2015 to allow SIRESS participants to be billed directly by SWIFT, as SWIFT messages are exchanged between SIRESS and its participants. In the previous arrangement, the billing was charged by SWIFT to the SIRESS Operator who then recovered these costs from the participants.

A new front-end system was developed and implemented in November 2015. The system provides participant banks with the functionality of submitting transactions to SIRESS, the management of their profiles, and enhanced reporting. The system also provides central banks with a regulatory function with the capability to draw reports on the transaction activities of banks in their jurisdiction.

About 12 participant banks were on-boarded to SIRESS during the Phase V on-boarding window in June 2015. The participation of two banks was terminated in SIRESS due to regulatory requirements in their domestic jurisdictions.

In line with the cooperative agreement between the regional central banks, four officials from the Bank of Tanzania and three from the Central Bank of Seychelles were attached to SIRESS operations in November 2015 and February 2016 respectively. These officials were assigned to SIRESS operations for the purpose of knowledge-sharing and acquainting them with the SIRESS operational systems and processes.



## D. Risk management

### 19. Risk management in the National Payment System Department

The Bank continues to monitor and manage risks that could impact on the NPS and the financial system in general, both from a strategic and operational perspective. Risk assessments are conducted formally on an annual basis to assess current risks and identify potential and emerging risks. During the year, action plans or risk mitigation strategies agreed to are assessed for implementation and reported to the relevant risk governance structures of the Bank.

The Bank also has processes in place to engage and interface with FMIs and participants in these entities in line with the management of their own strategic and operational risks.

Given the financial system's dependency on the RTGS system, the Bank continues to put significant focus on the management of operational risk in these systems.

## E. Statistical overview

### 20. Settlement in the SAMOS system

The following table depicts values settled in the SAMOS system for the different payment streams. In order to enable comparative analysis, the information is provided for the financial years 2009/10 to 2015/16. A positive growth is observed in all the payment streams except cheques, as clients migrate their payments to more convenient, lower cost and often more secure payment instruments.

Table 1: Settlement in SAMOS

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	Growth: 2009/10 to 2015/16	2015/16 monthly average
	R billions							Per cent	R billions
Real-time line (RTL) <sup>1</sup> .....	66 988,8	70 473,1	76 327,8	79 174,3	88 316,2	102 271,8	113 649,0	69,7	9 470,8
Electronic funds transfer (EFT) credits <sup>2</sup>	4 411,1	4 904,0	5 498,6	6 157,5	6 914,3	7 492,3	8 031,5	82,1	669,3
EFT debits <sup>3</sup> .....	498,6	538,1	610,3	687,2	695,1	650,2	675,7	35,5	56,3
Cards <sup>4</sup> .....	256,5	318,1	388,7	519,5	675,3	800,6	926,4	261,2	77,2
Cheques .....	944,3	810,5	685,7	399,1	258,0	199,0	151,1	-84,0	12,6
Automated teller machines (ATMs) .....	79,8	94,0	105,3	123,1	134,9	152,4	172,3	116,0	14,4
AEDO .....	4,5	5,2	5,5	5,3	7,3	9,2	10,8	141,6	0,9
NAEDO .....	32,4	46,1	60,9	75,5	84,8	95,8	99,3	207,0	8,2
Real-time clearing (RTC) <sup>5</sup> .....	27,5	43,9	75,4	121,6	146,1	178,2	209,6	661,5	17,5
<b>Total settlement amount .....</b>	<b>73 243,38</b>	<b>77 233,05</b>	<b>83 758,38</b>	<b>87 263,15</b>	<b>97 232,03</b>	<b>111 849,47</b>	<b>123 925,8</b>	<b>69,20</b>	<b>10 327,15</b>

1. RTL is the high-value, low-volume interbank settlement facility that is provided to the settlement banks in SAMOS to effect immediate, final and irrevocable payments.

2. EFT credit transactions are 'credit-push' in nature, that is, the payer initiates the payment with sufficient funds being available. EFT credits are mainly used by employers to pay salaries and facilitate Internet payments.

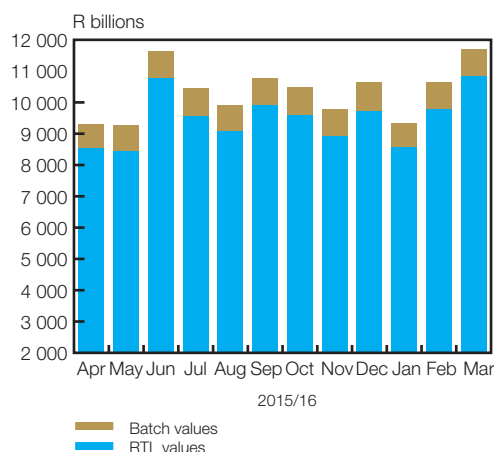
3. EFT debit is the payment stream where debit orders are processed to collect monthly premiums, such as insurance policies, mortgages and hire-purchase payments.

4. 'Cards' include the debit card, credit card, Visa, MasterCard, Amex, Diners Club and Fleet payment streams. Cards are the primary alternative to cash and cheques, offering convenience for consumers and merchants alike, making the payment system more efficient.

5. The RTC payment option was introduced in 2007 to provide increased transaction processing speed and convenience to customers. Once payment is effected, the payee's account is credited within 60 seconds.

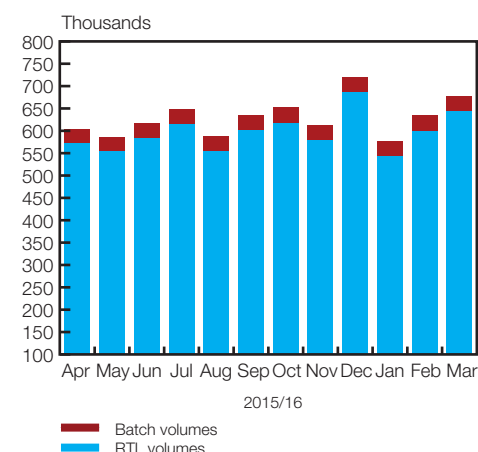
#### 20.1 RTL (high value) and retail (low value) batch settlement values, April 2015 to March 2016

Figure 2: RTL and batch settlement values



#### 20.2 RTL and retail batch settlement volumes, April 2015 to March 2016

Figure 3: RTL and retail settlement volumes





## 20.3 Infrastructure access points and number of payment instruments

The table below outlines payment system-related information collected from SAMOS participants through an NPS 100 information return. These figures show a positive trend for both point-of-sale devices and the number of ATMs, but a decline for the other access points, which indicate the withdrawal of non-performing devices. The number of devices per capita (100 000) also gives a good indication of the availability of the infrastructure to the broader population in South Africa.

Table 2: Infrastructure access points and payment instruments

Figures as at 31 December for each period (only available from 2010)

	2010	2011	2012	2013	2014	2015	Growth 2010 to 2015	Number of devices per capita (100 000) in 2015
	Number						Per cent	Number
No. of ATMs .....	23 259	24 063	22 901	26 133	27 774	28 906	24	52,55
No. of mini-ATMs <sup>1</sup> .....	3 385	2 335	2 475	2 706	2 672	2 004	-41	3,64
No. of self-service device terminals (SSTs) <sup>2</sup> .....	1 562	1 645	1 722	1 720	1 386	1 022	-35	1,86
No. of point-of-sale devices <sup>3</sup> ...	273 798	277 478	254 368	308 824	393 883	394 309	44	716,88
No. of cards .....	57 827 824	62 211 297	44 796 838	45 010 160	61 303 189	50 236 849	-13	91 334,45

1. A mini-ATM issues a paper voucher that may be encashed or used for the purchase of goods at a specific merchant.

2. SSTs have the same electronic features and functions as ATMs, except that they do not dispense cash.

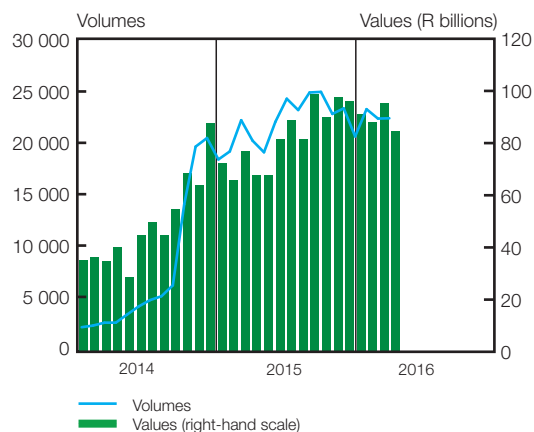
3. These are only bank-owned devices.

## 21. Settlement in SIRESS

The number of transactions/volume was stable during the period under review. A milestone of R1 trillion settled on the system was reached on 29 April 2015 and increased to R2 trillion by early April 2016. The average number of transactions processed per day is 1 120, representing the average settlement value of R4,22 billion. The peak volume of 24 960 transactions was reached during the month of October 2015, with a peak settlement value of R98,85 billion during the month of September 2015.

### 21.1 SIRESS: transaction volumes and values of transactions settled – CPL and RTL (excluding funding) since inception to March 2016

Figure 4: SIRESS volumes and values of transactions



## 21.2 SIRESS: participation as at March 2016

In SIRESS, the total number of participating countries grew to nine, with the participant banks (including central banks) growing to 73.

Table 3: SIRESS participation

SIRESS participation: countries	Numbers
Participating countries	9
SIRESS participation: banks	Numbers
Participating central banks (as participant banks)	6
Participating commercial banks	67
Total number of participants	73
SIRESS participation: regional clearing and settlement operators	Numbers
Retail clearing operators	1
Retail streams	Numbers
None	0

## 22. Conclusion

The regulatory framework for the payments and market infrastructure is being reformed in line with rapid changes in the payment system environment as well as technological advancements and developments. The role of the Bank is to ensure that safe and efficient systems are maintained, while keeping abreast with the evolving landscape. Through the strengthening of its oversight and regulatory capacity and tools, the Bank will ensure that the effective oversight of the NPS, including FMIs, is maintained.



## Abbreviations

AC	Authenticated Collections
AEDO	authenticated early debit order
ATM	automated teller machine
BIS	Bank for International Settlements
CLS	Continuous Linked Settlement
CPL	continuous processing line
CPMI	Committee on Payments and Market Infrastructures
CVM	customer verification method
EDO	early debit order
EFT	electronic funds transfer
EMV	Europay, MasterCard and Visa
FMI	financial market infrastructure
FSB	Financial Services Board
FSAP	Financial Sector Assessment Program
FSCA	Financial Sector Conduct Authority
FSR Bill	Financial Sector Regulation Bill
IDP	Interchange Determination Project
IMSG	Implementation Monitoring Standing Group
IOSCO	International Organization of Securities Commissions
MTO	money transfer operator
NAEDO	non-authenticated early debit order
NPS	national payment system
NPS Act	National Payment System Act 78 of 1998
NPSD	National Payment System Department
NPSSB	National Payment System Strategy Body
PA	Prudential Authority
PASA	Payments Association of South Africa
PAYIR	Payment Information Return
PFMIs	Principles for Financial Market Infrastructures
PIN	personal identification number
PSMB	Payment System Management Body
PSOC	Payment System Oversight Committee
RTC	real-time clearing
RTGS	real-time gross settlement
RTL	real-time line
SADC	Southern African Development Community
SAMOS	South African Multiple Option Settlement
SARB Act	South African Reserve Bank Act 90 of 1989, as amended
SIRESS	(SADC) Integrated Regional Electronic Settlement System
SST	self-service terminal
SWIFT	Society for Worldwide Interbank Financial Telecommunication
the Bank	South African Reserve Bank

