Annual Regulatory and Oversight Report

National Payment System Department

2016/17

South African Reserve Bank

This issue of the *Annual Regulatory and Oversight Report, National Payment System Department 2016/17* focuses mainly on the 12-month period ending March 2017. 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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Contents

Foreword

In a technology-driven world a reliable, resilient and secure payment system is an essential prerequisite for achieving sustainable, inclusive growth and financial stability. The national payment system (NPS) is thus a key pillar to the smooth functioning of the 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 regulatory framework and oversight arrangements.

An efficient payment system not only brings down the cost of economic activities but also promotes confidence in the public to use all types of payment products that are on offer. As payment systems are always evolving, regulators and overseers must remain focused on their objectives and be informed of ongoing implementations in the market to ensure stability.

With a value of between R300 billion and R500 billion being processed through the NPS daily, it is also important for processes, structures and technologies to interface and interconnect to ensure seamless, safe and efficient payments. Increased consumer confidence and protection in the NPS is necessary as all South African citizens, whether paying by cash or by electronic means, are affected by payment arrangements.

Adherence to global standards and principles – particularly the Bank for International Settlements' (BIS) Committee on Payment and Settlement Systems (CPSS – now known as the Committee on Payments and Market Infrastructures (CPMI)) and the International Organization of Securities Commissions' (IOSCO) 'Principles for financial market infrastructures' (PFMIs) – is also vital to ensure the safety, efficiency and soundness of the NPS. However, global practices must be adapted with caution to serve local requirements.

Regulation and oversight over the payment service providers, operators and participants should cover all the tools, technical systems, standards, mechanisms, institutions, agreements, procedures, rules and laws applied or utilised to effect payment. Through the oversight function, payment systems are monitored and evaluated against set objectives, and initiatives are facilitated to develop and implement outcomes that will assist in mitigating payment, clearing and settlement risks. As a catalyst for change within the payment environment, the National Payment System Department (NPSD) of the South African Reserve Bank (SARB) advocates for a transparent, accountable and risk-based approach to regulation and oversight of the NPS.

This fourth edition of the NPSD *Annual Regulatory and Oversight Report* provides an update on the execution of the NPSD's mandate relating to the NPS as well as an overview of the regulatory and oversight activities and initiatives during the 2016/17 reporting period. Active collaboration with stakeholders and role players is vital in addressing issues in this payments industry. The NPSD relies on these relationships for the successful implementation of the initiatives.

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

Groepe

F E Groepe
Deputy Governor
South African Reserve Bank

A. Purpose and background

1. Purpose

The purpose of this *Annual Regulatory and Oversight Report* is to provide an overview of the key activities of the NPSD as the regulator and overseer of the South African NPS during the period April 2016 to March 2017.

2. Background

2.1 Overview of the NPS

The NPS broadly encompasses the total payment process within the Republic of South Africa, from payer to beneficiary. This includes all the systems, mechanisms, institutions, agreements, procedures, rules and laws that come into play from the moment an end-user, using a payment instrument, issues an instruction to pay another person or a business, through to the final interbank settlement of the transaction in the records of the SARB. Essentially, it enables the efficient exchange of value by transacting parties to conclude financial transactions, which is core to the smooth functioning and growth of the economy. It is therefore crucial for the NPS to remain stable, safe, efficient and transparent, and to ensure that potential risks are adequately addressed.

1. More information is available at https://www.bis.org/cpmi/publ/.

A payment system, as defined by the BIS, consists of a set of instruments, procedures and rules for the transfer of funds between or among participants, and includes the participants and the entity operating the arrangement.[1] Payment systems are usually categorised into large-value payment systems (handling large-value, low-volume and high-priority payments) or retail payment systems (handling large-volume or low-value transactions).

2.2 The history of the NPS

In the 1980s central banks and standard-setting bodies became increasingly concerned about the risks associated with the settlement of payment-related activities. Of particular concern was the level of credit and liquidity risks the participants in the payment system were exposed to. In addition, the regulatory and supervisory responsibiities of central banks were not clearly defined and prescibed.

As a result, there was an increasing need for specific attention to be given to payment systems. This led to the establishment of the CPSS in 1990 by the Group of Ten (G10) Governors, whose membership was later extended to include governors of other countries. The CPSS published reports and guiding principles on how to adress the risks, and regulatory and oversight responsibility of payment systems.

2. This document is available at www.resbank.co.za, under Regulation and supervision\National Payment System (NPS).

This, coupled with other local developments, prompted the initiation of the modernisation process by the SARB in April 1994, in collaboration with the banking industry. This process culminated in the development of the South African National Payment System Framework and Strategy Document[2] (the so-called 'Blue Book'), a long-term strategy which was published by the SARB in 1995. The Blue Book contained the vision and strategy for the NPS up to 2004. Key milestones included in the Blue Book, which have since been achieved, include the following:

a. The introduction of the South African Multiple Option Settlement (SAMOS) system, the real-time gross interbank settlement system, in 1998. The SAMOS sytem caters for the settlement of individual high-value transactions, batched retail obligations as well as financial market obligations emanating from the bond and equity markets.

b. The promulgation of the National Payment System Act 78 of 1998 (NPS Act), which took place in October 1998. The NPS Act provides for the regulation, supervision, monitoring and operation of the NPS.

c. A number of key developments followed the introduction of the SAMOS system and the promulgation of the NPS Act. These included:

i. the recognition of the Payments Association of South Africa (PASA) as a payment system management body (PSMB) in 1998, responsible for the regulation, management and organisation of its members in the clearing environment;

ii. the introduction of risk-reduction measures, particularly in the clearing and settlement environment such as payment clearing house (PCH) agreements, item limits, and the intraday monitoring of liquidity usage;

iii. official acceptance of the South African rand as a Continuous Linked Settlement (CLS)[3] currency, which was achieved in December 2004 – the main objective of a CLS is to reduce foreign exchange settlement risk; and

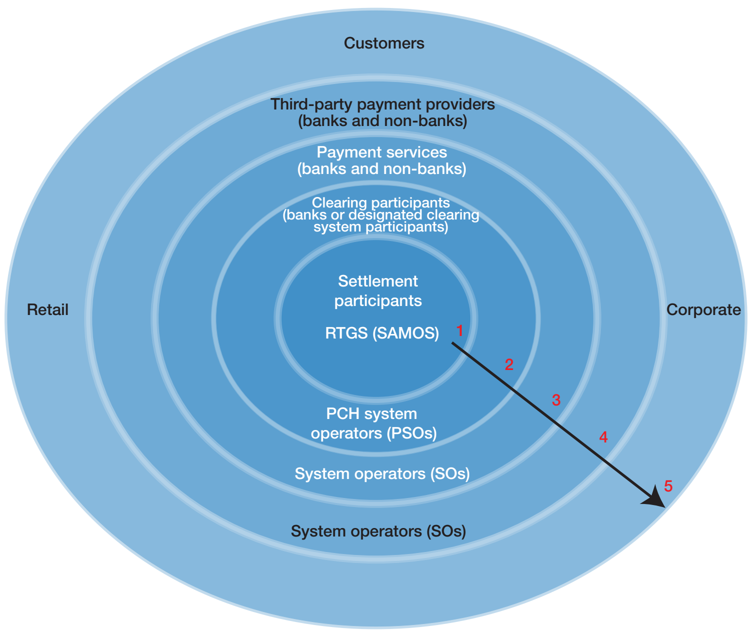
iv. the consequential amendment of the NPS Act to make provision for the designation of a CLS system as a settlement system, and to allow access and development of a regulatory and oversight framework for new players, for example, cooperative banks, designated clearing system participants, third-party payment providers and system operators (SOs).

3. CLS is a means of settling foreign exchange transactions finally and irrevocably. CLS eliminates settlement risk, improves liquidity management, reduces operational banking costs, and improves operational efficiency and effectiveness.

2.3 Overview of the NPS industry

The NPS comprises a series of layers of participants, systems, operators and providers as depicted by the diagram and narrative in Figure 1 below.

Figure 1: The South African payment system industry



Source: Payments Association of South Africa

The payment system industry diagram depicts the following:

1. Settlement participants are in the inner core of the NPS and their respective payment obligations are settled through the SAMOS system.

2. The second layer consists of clearing participants, that is, banks or designated clearing system participants (who may be non-banks). The clearing of payment instructions

between these participants happens through authorised PCH system operators (PSOs). There are currently four authorised PSOs: Strate Limited, BankservAfrica Limited, Visa and MasterCard.

3. The third layer consists of providers of payment services, either directly by a clearing participant or by using an SO. SOs may provide payment services to banks, mutual banks, registered branches of foreign banks, cooperative banks and designated clearing service providers; beneficiary service providers; payer service providers; and clients of banks. There are over 100 SOs currently authorised by PASA.

4. The fourth layer consists of third-party payment providers (TPPPs), that is, beneficiary service providers and payer service providers that accept money or the proceeds of payment instructions from, or effect payments on behalf of their clients to, two or more payers or beneficiaries. There are currently over 100 TPPPs registered with PASA.

5. The fifth layer consists of consumers, corporate customers and other providers of payment services.

In addition to the participants and systems depicted in Figure 1, the NPS also consists of the following:

a. **Payment streams:** The various payment streams that currently fall within the scope of the NPS and PASA include real-time line (RTL), code-line clearing (cheque), electronic funds transfer (EFT) credit, EFT debit, Saswitch (automated teller machines (ATMs)), debit card, credit card, immediate settlement (IMMS), cash, American Express, Diners Club, fleet card, authenticated early debit order (AEDO), non-authenticated early debit order (NAEDO), authenticated collections (AC), real-time clearing (RTC), derivatives, equities, money market, and bonds.

b. **Payment services and products:** South Africans use various payment instruments to initiate the transfer of claims between them, to make financial investments or to transfer funds from one party to another. These payment instruments include cash, cheques, debit and credit cards, and mechanisms to trigger EFTs. Non-cash payment instruments facilitate the movement of a claim on a financial institution such as a bank of the payer to the bank of the beneficiary, and the financial institutions involved need arrangements to transfer such claims, including bank-to-bank transfers.

B. Regulation and oversight of the NPS

3. Regulatory environment

The South African Reserve Bank Act[4] (SARB Act) authorises 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 payment, clearing or settlement systems”.[5]

Aligned to this mandate in the SARB Act is the enabling legislation, the 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”.[6] The authority to perform these functions within the SARB has been assigned to the NPSD.

The NPS Act provides the NPSD with the legislative authority to issue directives, after consultation with the PSMB, to any person regarding a payment system or the application of the provisions of the NPS Act. The directives are gazetted and have a binding effect on the persons to whom they are applicable. Directives also enable the NPSD to induce change and enforce corrective action for non-compliance with the NPS Act, decisions or orders of the NPSD, or policies in the NPS.

4. 90 of 1989, as amended.

5. See section 10(1)(c) of the SARB Act, available at www.resbank.co.za, under About us\Legislation.

6. See the National Payment System Act, available at www.resbank.co.za, under Regulation and supervision\National Payment System (NPS)\NPS Legislation.

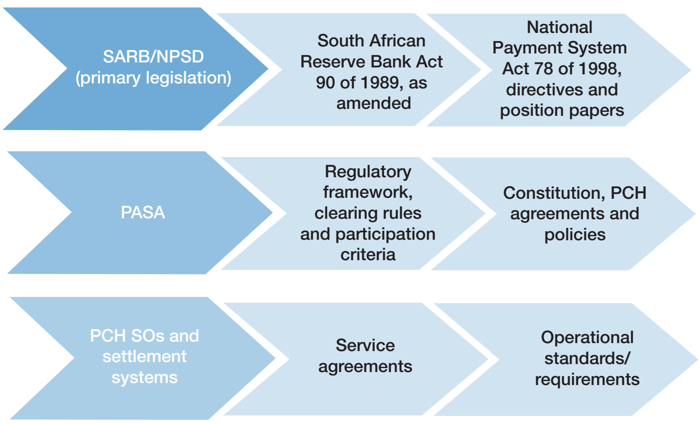
The NPSD also issues non-binding (yet morally persuasive) position and information papers (or 'soft standards') from time to time. Position papers are published by the NPSD in order to state the NPSD's position in respect of specific payment system issues. These documents contain approaches, procedures and policy matters that are applicable at a particular time.

In terms of the NPS Act, the NPSD 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 a PSMB by the NPSD. PASA sets the rules, regulatory framework, agreements and policies with which its members are required to comply. It also recommends criteria for approval by the NPSD in respect of clearing members, PCH SOs and SOs; and recommends criteria for the participation of its members in PASA. PASA also supports the NPSD in its role as overseer of the payment system by ensuring compliance and imposing penalties against, and sanctions for, its members.

At the SAMOS, SIRESS, PCH SO and the outer core level, participants enter into legally binding service level agreements for the provision of services or systems. These agreements also impose legally binding bilateral obligations on the part of the operators and the participants.

The current legal foundation of the NPS is outlined in Figure 2 below.

Figure 2: NPS legal foundation



The regulatory environment is currently under review by the NPSD through the NPS Act review process, as the payments industry is becoming increasingly innovative and complex. The review is in keeping with the global trend relating to the regular review of perimeters of regulation to ensure that the payment system remains stable, safe, efficient and transparent, and that potential risks are adequately addressed.

4. Oversight approach, scope and framework

According to the BIS, oversight is "a central bank function whereby the objectives of efficiency, safety and soundness are promoted by monitoring existing and planned payment, clearing, settlement and related arrangements, assessing them against these objectives and, where necessary, inducing change."[7]

In July 2001 the SARB formally established its payment system oversight function, which is vested within the NPSD of the SARB. Since its inception, the South African oversight model has been developed and refined to cater for the needs of the domestic payment system, while at the same time adhering to international best practices. The main objective of oversight is the reduction of systemic risk, which could result from legal, liquidity, credit, operational, settlement and reputational risk in the payment system. Thus, oversight encompasses the regulatory role that the NPSD plays in the NPS, including monitoring of the financial market infrastructures (FMIs); and the regulation, organisation and management role that the PSMB performs on payment institutions and systems under its jurisdiction.

7. More information is available at http://www.bis.org/cpmi/publ.

8. The National Payment System Department Oversight Framework is available at www.resbank.co.za, under Regulation and supervision\National Payment System (NPS)\Oversight.

9. This authority is currently called the Financial Services Board (FSB), but is envisaged to become the Financial Sector Conduct Authority (FSCA).

The SARB published the National Payment System Department Oversight Framework[8] (Oversight Framework) in October 2016. This was in accordance with the PFMIs, which state the responsibilities of a central bank to publicly disclose the regulation, supervision and oversight of financial market infrastructures (FMIs). The Oversight Framework outlines the legal framework, objectives, scope and approach of the oversight function of the NPSD of the SARB. It defines the scope of oversight as encompassing the regulatory and monitoring role that the NPSD plays in the NPS, including oversight of the FMIs and the PSMB.

The public policy objectives of oversight as provided for in the Oversight Framework include the enhancement of safety and soundness, efficiency, reduced systemic risk, fostering of transparency, prevention of financial crime, financial inclusion, consumer protection, building confidence in the financial system, and competition.

The Oversight Framework is based on the current legislative and regulatory framework and structure of the payments industry. It is a living document that is subject to periodical review to ensure that it is reflective of any amendments or expansion to the scope, approach and framework of regulation and oversight.

In fulfilling its oversight mandate, the NPSD cooperates with National Treasury and other regulators such as the Financial Services Board (FSB), Competition Commission and National Credit Regulator (NCR).

C. 2016/17 Regulatory and oversight activities

5. The Twin Peaks model and its impact on the NPS

The Financial Sector Regulation Act 9 of 2017 (FSR Act) was promulgated into law in August 2017. The FSR Act provides, among other things, for the conduct, regulation and supervision of payment services providers by the Financial Sector Conduct Authority (FSCA), which is currently the FSB,[9] in an attempt to address the conduct issues impacting customers in the NPS. The FSCA is, however, required to seek the concurrence of the SARB when issuing the conduct standards for the regulation and supervision of payment services providers.

During the reporting period, the NPSD worked in close collaboration with relevant stakeholders within the SARB, FSB and National Treasury to define the scope of the FCSA in the NPS, including the licensing arrangements between the NPSD and the FSCA. The ‘agreed’ scope will be included in the relevant legislation, which may include the Conduct of Financial Institutions Bill (CoFI Bill), the NPS Amendment Act or the FSR Act through consequential amendments. A memorandum of understanding will also be concluded between the NPSD and FSCA for purposes of exchanging information and collaboration on relevant payment system-related matters.

6. NPS Act review

In recent times, regulatory authorities have been under tremendous pressure to regularly review and strengthen the regulatory and legislative frameworks and to align these with best international standards and practices. This is aimed at ensuring coordinated and consistent regulation across jurisdictions.

Additionally, as the payments industry becomes increasingly innovative and digital, and financial technology becomes more advanced and faster, the emergence of new payment methods, technologies, services, participants and ways of effecting or processing payments have become increasingly prominent and present a challenge to the traditional payments landscape. The regulatory and legislative framework thus needs to be flexible and adaptable to these changes, and provide an enabling environment for innovation to thrive. Further, the framework should remain robust and resilient to risks that may pose a threat to the safety and efficiency of the NPS.

A number of developments have necessitated a rethink of the adequacy and relevance of the existing payments regulatory framework. These include global policy developments relating to financial inclusion, access, financial stability, effectiveness, integrity and competition as well as international best standards, practices and recommendations from global policy and standard-setting bodies and assessment institutions such as the World Bank and the International Monetary Fund.

The NPSD initiated the NPS Act view process in 2015 by inviting key NPS stakeholders to make proposals for the required amendments to the NPS Act. The governance structures for the review process have been established and the review project plan has been developed. The structures include the following:

a. Standing Committee on the review of the NPS Act (Standing Committee), established in terms of section 15 of the NPS Act: The Standing Committee is composed of regulatory authorities within the SARB as well as external regulators responsible for the regulation of non-bank financial institutions and credit providers. National Treasury is also a member of the Standing Committee. The Standing Committee is a decision-making body responsible for recommending the required amendments to the Minister of Finance. The inaugural meeting of the Standing Committee took place in March 2016 and the Standing Committee is scheduled to meet on a quarterly basis.

b. Expert group: This structure is responsible for providing expert advice to the Standing Committee. It is composed of industry experts appointed in their individual capacity.

c. Working group: This structure is responsible for technical, research and drafting support to the Standing Committee. It is an internal SARB structure, although National Treasury and the FSB are included in the working group.

During the year under review, the working group had various meetings and engagements with selected key industry stakeholders to gather more insight into their respective roles and institutional frameworks. The working group further developed the NPS Act Review policy paper. The policy paper highlights the shortcomings of the NPS legislative framework and policy issues, and recommends the required changes to the NPS Act. The policy paper will be submitted to National Treasury during 2018, after being approved by the Standing Committee and the SARB's Governors' Executive Committee.

The NPS Amendment Bill will be drafted once the NPS Act policy paper has been submitted to National Treasury.

7. FMI policy framework

7.1 PFMI implementation monitoring by CPMI-IOSCO

The Implementation Monitoring Standing Group (IMSG) was established by the CPMI and IOSCO to design, organise and carry out implementation monitoring assessments of the PFMIs. The IMSG reviews the progress made by jurisdictions towards adopting the legislation and other policies that will enable jurisdictions to implement the PFMIs. The review reports are published on the BIS website as and when concluded. Regular updates of the assessments are also conducted and published, ensuring that jurisdictions implement the PFMIs in a full, timely and consistent manner.

The monitoring process has three levels that assess whether:

a. jurisdictions have completed the process of adopting the legislation and other policies to implement the PFMIs within their regulatory framework (Level 1);

b. the adopted measures are complete and consistent with the PFMIs (Level 2); and

c. there is consistency in the outcomes arising from the implementation of the PFMIs (Level 3).

South Africa was assessed as a jurisdiction in respect of the fourth update to the Level 1 assessment during the period under review, and the report was published in 2017. 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, the second update was published in June 2015, and the third update was published in June 2016.

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 and trade repositories.

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 of the responsibilities for authorities, as provided in the PMFIs, across all relevant FMIs within the assessed jurisdictions.

7.2 Process followed by South Africa to monitor the implementation of PFMIs

In 2013 the SARB initiated a process whereby FMIs had to complete regular self-assessments against the PFMIs and publish these self-assessments on their websites. This process includes, but is not limited to, regular interaction with the FMIs relating to their self-assessments and research relating to best practices in other jurisdictions with regard to FMIs.

In 2016 the SARB reiterated the requirement for FMIs to conduct their self-assessments every two years, or when changes in the material aspects of their business are effected. The FMIs are also required to publish the self-assessments on the respective FMIs' websites. The SARB further clarified that the FMIs must ensure that cognisance is taken of all documents published by the CPMI and IOSCO relating to the PFMIs and/or FMIs, and that any recommendations made in such publications be incorporated into the FMIs' self-assessments.

The first self-assessments were completed by the FMIs and submitted to the SARB in July 2014, whereafter they were subjected to review and analysis by the SARB. The outcome of the review of the self-assessments as well as the proposed way forward with regard to the future assessment of the various FMIs was communicated to the relevant parties during the third quarter of 2016.

The SARB initiated the second round of self-assessments during the period under review. The second self-assessments for the SAMOS system and the Southern African Development Community (SADC) Integrated Regional Electronic Settlement System (SIRESS) will be finalised and published within the 2017/18 financial year.

7.3 Creation of a Computer Security Incident Response Team

The FMIs collaborated to create a Computer Security Incident Response Team (CSIRT) in South Africa to enable communication and collaboration between the FMIs with regard to cyberattacks or other related issues. The SARB endorsed this initiative in 2016. It is believed that the initiative will encourage active collaboration between FMIs and will be beneficial for South Africa in addressing cybercrime.

7.4 FMI policy and regulatory framework

The payment, securities and derivatives FMI policy and regulatory framework is currently fragmented between the NPSD, FSB and self-regulatory organisations responsible for the regulation and supervision of FMI participants. This, together with the Twin Peaks regulatory reform process, prompted deliberations within the SARB on the most appropriate policy and regulatory framework for FMIs.

The engagements continued during the period under review and culminated in the development of the FMI policy paper. The NPSD developed the FMI policy paper in collaboration with the SARB's Bank Supervision Department (BSD) and Financial Stability Department (FinStab), and went through various iterations of internal review and consultation.

The overarching purpose of the FMI policy paper is to guide the development of the FMI regulatory, supervisory and oversight policy and framework in terms of policy objectives, scope and responsibilities. It aims to achieve the development of the consolidated (or less fragmented) FMI policy framework as well as regulatory, supervisory and oversight responsibilities that are consistent with the FSR Act and with best international standards (i.e. the PFMIs) and practices.

The main recommendation of the FMI policy paper relates to the centralisation of the regulation, supervision and oversight of the systemically important FMIs (i.e. securities, derivatives and payments FMIs) in the SARB. During the period under review, internal discussions were held to agree on the specific FMI aspects for centralisation within the SARB. The SARB will engage with National Treasury and the FSB on the recommendations of the FMI policy paper. It is envisaged that these engagements will be concluded by the end of 2018, whereafter the agreed framework will be published for public comment.

8. Directive in respect of Financial Action Task Force Recommendation 16

In June 2015 the NPSD issued 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' (FATF EFT Directive). Following the issuance of the FATF EFT Directive, the payments industry approached the NPSD and raised specific interpretation and implementation concerns with regard to the directive. The concerns were further reiterated in the engagement sessions held with various industry participants where it was highlighted that further clarity was required from the SARB on the application and interpretation of the FATF EFT Directive.

A series of workshops with the payments industry were organised by the NPSD in collaboration with the Financial Intelligence Centre (FIC), BSD and the Financial Surveillance Department during 2016/17 to discuss the issues of concern. The NPSD took a decision to issue an Interpretation Note to provide clarity on the NPSD's interpretation of the FATF EFT Directive and the basis upon which compliance monitoring and supervision would be effected.

In addition, the NPSD undertook to amend the FATF EFT Directive to provide legal clarity on, among other things, the responsibilities of the originating, intermediary and beneficiary institution in respect of domestic and cross-border EFTs. The amendment is currently underway and is envisaged to clarify the potential impact of the risk-based approach and customer due diligence provisions on the FATF EFT Directive.

9. PASA effectiveness review

In 1998 the NPSD recognised PASA as a PSMB established with the objective of organising, managing and regulating the participation of its members. In 2015 the NPSD initiated a review of PASA to assess its effectiveness in fulfilling its delegated mandate. The review culminated in the development of a report titled 'Review of the effectiveness of the Payments Association of South Africa' (PASA Review Final Report). The report contains recommendations aimed at addressing the shortcomings identified in respect of PASA's governance, membership and mandate as well as institutional, regulatory, compliance and enforcement frameworks. It further provides for the timelines and clear allocation of responsibilities to address these shortcomings.

In September 2016, following the publication of the PASA Review Final Report, the NPSD initiated the PASA review implementation process to facilitate a well-coordinated implementation approach. This resulted in the establishment of the PASA Review Steering Committee, the co-design team, coordination group and working groups. The working groups comprise the regulatory, mandate and membership, governance, and operating and funding model working groups.

The Steering Committee met twice during the period under review, with frequent meetings being held at the co-design team level. In February 2017 the NPSD hosted a stakeholder workshop to provide an update on the progress made with regard to the project. This included an update on the implementation process, the governance structures established, the composition of the structures, and the announcement of the appointment of the project manager. Further, the NPSD commenced with a process of initiating proposals on how to implement the PASA review recommendations. It is envisaged that these proposals will be concluded by the end of November 2018.

10. Payroll deductions

In July 2016 the NPSD published a 'Notice to stakeholders in the NPS, financial institutions and other non-bank institutions on payroll deductions in South Africa' (Payroll Deductions Notice).[10] The Payroll Deductions Notice served to inform stakeholders, financial institutions and other non-bank institutions that the NPSD regards payroll deductions as a closed-loop payment system. It also highlighted the potential negative impact of non-statutory payroll deductions on the safety and efficiency of the NPS. Examples cited to substantiate this negative impact included where one participant's transactions (e.g. the employer or another third party) is always preferred over those of the other participants, and where a payroll payment system becomes well accepted as a parallel payment system to the payment systems regulated by the NPSD.

10. The notice on payroll deductions is available at www.resbank.co.za, under Regulation and supervision\National Payment System (NPS)\Legal\Information papers and notices.

In addition, concerns had been raised with regard to other socio-economic issues associated with payroll deduction systems where the employees' take-home salaries are significantly reduced or completely depleted by the non-statutory deductions. As a result, stakeholders and participants in the NPS were advised to refrain from entering into or executing non-statutory commercial arrangements for payroll deduction services.

During the period under review, the NPSD established the Payroll Deductions Steering Committee to discuss the various issues associated with the non-statutory payroll deductions and various policy options for such deductions. The Steering Committee comprises representatives from National Treasury (including the Office of the Accountant-General), FSB, NCR, the Department of Trade and Industry, the Department of Public Services and Administration, and the Department of Labour.

A working group was also established to assist the Steering Committee in formulating the possible policy options. The NPSD, in consultation with the Steering Committee and working group, developed a draft Payroll Deductions Policy engagement paper with policy options. A process is currently underway to engage the Steering Committee and the working group on the engagement paper. In 2016/17 the NPSD also met with key role players in the payroll deductions environment to clarify its position on payroll deductions. It is envisaged that the Payroll Deductions Policy engagement paper will be finalised by the end of 2018.

11. Sort-at-source

On 31 March 2017 the NPSD issued a 'Notice to all stakeholders in the NPS on sort-at-source'[11] (Sort-at-Source Notice). The Sort-at-Source Notice addresses the practice of users bypassing the central clearing system and submitting files of transactions directly to the paying bank, which then processes such transactions as on-us transactions. This practice negatively affects the integrity, efficiency, interoperability, transparency, effectiveness and level of innovation in the NPS.

11. The notice on sort-at-source is available at www.resbank.co.za\Regulation and supervision\National Payment System (NPS)\Legal\Information papers and notices.

Essentially, on-us transactions sorted-at-source are not visible to regulators. They also impede the development of two-sided markets and may discourage innovation at platform level. In addition, the receiver of funds may hold multiple accounts for similar payments, resulting in multiple acquiring.

The NPSD, however, acknowledges that there are instances where sort-at-source would not amount to the bypassing of the regulated clearing system (i.e. where multiple acquiring is normally used for purposes of business continuity). The Sort-at-Source Notice also advised stakeholders to refrain from the practice of sort-at-source specifically aimed at bypassing the regulated clearing system. The NPSD announced that it was in the process of reviewing and developing a comprehensive policy position, which would provide clear scope and guidance.

12. Interchange Determination Project

Interchange is a critical enabler of the payment infrastructure and the interoperability within an NPS. South African banks have been charging one another interchange fees for several years, but there was uncertainty on how these rates were determined.

In 2006 the Competition Commission of South Africa established a Banking Enquiry to review the conduct of retail banking in South Africa. One of the recommendations of this enquiry was to provide an independent, objective and transparent regulatory process for determining interchange in the payment streams in the NPS. As a neutral and trusted party, the NPSD assumed the responsibility to facilitate the determination of interchange rates for the various payment streams in the NPS.

The SARB launched the Interchange Determination Project (IDP) in 2011 to assess the relevance of interchange for specific payment streams in the South African NPS. Since then, three IDP phases have been completed to determine the interchange rates for ATM and card transactions as well as to develop and implement a secure web browser, known as the Payment Information Return (PAYIR) system. Every year, the NPSD collects interchange and other payment system-related data from the participating banks via the PAYIR system. The data is used, among other things, to calculate the interchange rates.

The interchange rates for ATMs were implemented in the NPS on 1 April 2014, while the card interchange rates were implemented on 17 March 2015. For the period 2013 to 2015 there were no changes in the rates as the implemented rates remained relevant. The rates for ATMs and cashback at point-of-sale devices remained unchanged in 2016. However, in the card payment stream, rates for card-present transactions remained unchanged while that of the card-not-present transactions were changed and implemented on 14 November 2016 to encourage secure online payment activities.

Future activities of the IDP include the review and determination of interchange rates for other retail payment streams, which include RTC, EFT credits and EFT debits.

13. Authenticated collections

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 AEDO system provides an authentication mechanism using card and PIN technology, while the NAEDO system continues to utilise a paper-based or voice mandate.

The NAEDO system has grown at a steady rate since its implementation. It brings benefits to many markets, 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 by the customer with the paying bank. However, customers have also contributed to the increase in these disputes by disputing genuine debit orders for which they had granted authorisation in order to manage their cash flow.

To protect both sides of the market (collectors and customers), the NPSD issued terms of reference 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 a safe and efficient mechanism for collecting debit orders through strengthened debit order mandates that are authenticated by the paying customer.

During the period under review, the payments industry engaged on the design of the AC system, with possible authentication options made available to users and customers that include electronic (non-card) and card-based options. Industry testing is also underway and the initial pilot phase for the AC system is expected to commence in the second half of 2018.

Further, the NPSD developed and consulted the payments industry on the draft directive in respect of the establishment of an authenticated collections mechanism to address the associated risks and to maintain a safe and efficient NPS. The directive provides for the conduct of participants involved in the collection of payment instructions in the EDO environment. The directive will require all participants involved in the collection of payment instructions in the EDO environment to design, develop and fully implement AC through a phased approach by 31 October 2019.

PASA will be required to monitor compliance by the participants with the NPSD approved implementation plan, and apply an appropriate enforcement action through a newly developed compliance and enforcement framework.

14. Biometrics

A need for biometric verification technology for social grant payments has been identified. To accommodate biometrics as a customer verification method (CVM), in 2014 the NPSD requested PASA to actively pursue the specification of a national biometric standard. The development of a national biometric specification is an important first step towards an approved national biometric CVM standard adopted and implemented on a voluntary basis within the card PCH.

In July 2016 the payments industry concluded the development and design of card specifications for an open, interoperable, national biometric authentication standard that will accommodate biometrics as a CVM for card-present transactions in the South African market. The specification enables a range of biometric solutions, including fingerprint, palm, voice, iris and facial verification.

The acceptance specification was a joint effort by MasterCard International and Visa Inc., with the goal of becoming a global standard similar to EMV.[12] The card specification will remain proprietary to any participant that selects to incorporate biometrics as a CVM on the cards that it issues.

15. Virtual currencies and distributed ledger technology

The SARB issued a position paper on virtual currencies[13] in December 2014. This position paper highlights several risks associated with the virtual currencies landscape, particularly digital currencies, and provides a cautionary note to users. The position paper further highlights that, given the market size of virtual currencies at that time, virtual currencies pose no significant risks to financial stability, price stability or the NPS. The position paper still stands.

12. 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.

13. For more information the position paper on virtual currencies (No. 2/2014) is available at www.resbank.co.za, under Regulation and supervision\National Payment System (NPS)\NPS Legislation\Position papers.

In March 2016 the SARB approved the establishment of an internal Virtual Currencies (VCs) and Distributed Ledger Technologies (DLTs) Working Group (VC/DLT Working Group). The main purpose of the VC/DLT Working Group is to research and review international and domestic regulatory, supervisory and technological opportunities as well as risks linked to financial stability. It is aimed at positioning a policy response pertaining to VCs and DLTs from a central banking perspective. The NPSD is a member of the VC/DLT Working Group and participated in various activities of the working group during 2016/17.

The SARB VC/DLT Steering Committee (VC/DLT Steerco) was established in April 2016 to monitor and provide guidance and thought leadership to the VC/DTL Working Group in the development of policy proposals, advancing research, and assessing the technological and market opportunities offered by blockchain and DLT. The VC/DLT Steerco is chaired by the Head of the NPSD, and comprises other affected departments within the SARB, including BSD, FinStab, and the Financial Surveillance, Currency Management and Group Security Management departments.

The VC/DLT Steerco meets quarterly and met three times during the period under review. Representatives from the NPSD also participate in the VC/DLT Steerco meetings, which are mainly focused on the Steerco's scope, objectives, action plans, receiving and reviewing feedback from the VC/DLT Working Group as well as exploring the possibility of establishing a stand-alone Financial Technology (FinTech) Unit within the SARB.

In addition, during 2016/17 the NPSD also participated as an observer in an industry working group consisting of commercial banks, FMIs, regulators and other stakeholders involved in the South African financial services space. The aim of this group is to explore and understand the potential benefits of DLT and the risks it poses.

No policy position has been taken by the SARB in respect of VCs and DLTs at this stage. The SARB is continually monitoring developments in the VC and DLT environment as well as exploring the environment for any possible opportunities or regulatory interventions.

16. FinTech

The FinTech Intergovernmental Working Group consisting of the SARB, National Treasury, FIC, FSB and South African Revenue Service was formally established in December 2016. Its main purpose is to assess different FinTech innovations and their impact on the South African regulatory landscape. This is aimed at fostering safe FinTech innovation in South Africa.

The working group is chaired by the NPSD and met three times between 1 April 2016 and 31 March 2017. Representatives from the NPSD also participated in the meetings of the working group. In addition, due to the proliferation of FinTech, the SARB established an informal FinTech working group in 2016 to monitor developments and explore possible policy options.

17. Remittances

In 2011 the Minister of Finance announced that measures would be taken to reduce the costs of cross-border remittances. Following the announcement, the SARB's Financial Surveillance Department amended the Exchange Control Rulings and developed a new framework, which was communicated in a circular titled 'Amendment to the Exchange Control Rulings' dated 22 July 2013. The Exchange Control Rulings were amended by eliminating the requirement for money transfer operators (MTOs) to partner with existing authorised dealers. This permitted MTOs to operate independently and encouraged greater competition relating to cross-border remittances.

For domestic remittances (i.e. remittances within South Africa), the current policy is such that domestic MTOs are required to partner with registered banks to be able to provide such services. The activity of domestic remittances is deemed as a deposit-taking activity as it involves the pooling of funds from the public, which element falls within the realm of the Registrar of Banks.

In terms of section 7 of the NPS Act, a person may, as a regular feature of that person's business, accept money or payment instructions from any other person for the purpose of making payments on behalf of that person to a third person to whom that payment is due. This does not provide a sufficient regulatory mandate to address domestic remittances or money transfers provided by MTOs, as most remittance payments to third parties are not always classified as 'payments due'.

In this regard, the NPSD has taken a decision to review the regulatory policy framework for domestic remittances. This is aimed at deepening financial inclusion, competition, cost-reduction, improving access to the NPS for non-banks as well as aligning the cross-border and remittance policies within the SARB.

During the period under review, the NPSD explored various options with regard to the regulatory approach and engaged various stakeholders within the SARB, including the Registrar of Banks, on the possible options. A policy paper is also being developed to clarify the key regulatory options. It is envisaged that the policy paper will be published for public comment by the end of 2018.

18. Stakeholder management

18.1 Domestic

The NPSD regularly interacts with National Treasury on various regulatory issues relating to the safety and efficiency of the NPS. Officials of the NPSD also participate in various committees and working groups in the domestic environment and cooperate with other regulatory agencies (financial regulators and supervisors) in exchanging information and on matters of common interest.

Accordingly, the NPSD has established relationships with bodies such as the FSB, Department of Social Development, South African Social Security Agency (SASSA), NCR, Competition Commission and FIC. Issues of national interest, such as financial inclusion, the regulation of FMIs, payment solutions for social grants, market conduct, consumer protection, competition and financial crime (e.g. anti-money laundering) are given specific focus.

Within the SARB, relationships are cultivated with other departments, such as BSD and the Financial Surveillance, Currency Management and Financial Services departments, to exchange information, set the scope and parameters for cooperation, clarify responsibilities and address issues of common interest.

The National Payment System Strategy Body (NPSSB), a body established by the SARB to foster the cooperation and exchange of information relating to the NPS strategy between the SARB and the payments industry, met in November 2016. The aim of the meeting was to provide an update on the NPS Act Review and the PASA Review projects.

18.2 Regional

18.2.1 SADC Payment System Oversight Committee

The SADC Payment System Oversight Committee (PSOC) consists of country leaders representing 14 of the 15 SADC member states that participate in SIRESS. The main objective is to regulate, oversee and supervise the operations of SIRESS to ensure the safety and efficiency of the payment system within the region. The SADC PSOC interacts with the SADC PSMB and SADC Banking Association to provide guidance and support in the uptake of retail payment streams in the region.

In terms of the memorandum of understanding for the cooperative oversight of SIRESS, the NPSD is the lead overseer of SIRESS and provides a secretariat function to the SADC PSOC. In this regard, the NPSD arranged and attended SADC PSOC meetings as Lead Overseer during the period under review.

Among other activities, the NPSD reviewed the self-assessment report against PFMIs submitted by SIRESS as a payment system FMI for the SADC region. This self-assessment report was subsequently published on the SARB and SADC websites. To encourage the usage of SIRESS, the SARB supported the addition of other SADC currencies and the US dollar as settlement currencies. For capacity-building and training activities, the NPSD provided training to SIRESS participants on its oversight processes.

As the domestic regulator for BankservAfrica Limited (BankservAfrica), the NPSD granted the SADC PSOC consent to authorise BankservAfrica as a regional clearing and settlement SO. The licence will be renewed every two years. Furthermore, the NPSD participated in the SADC retail working groups responsible for the implementation of the low-value EFT credits and mobile money payment for cross-border transactions.

18.3 International

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

18.3.1 CLS 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 (New York Fed) is the lead regulator of the CLS Bank and the lead overseer of the CLS system. Under the New York Fed's chairpersonship, a cooperative central bank oversight arrangement has been set up and formalised through an oversight protocol and oversight guide.

The SARB continues to participate in the CLS Oversight Committee which is chaired by the New York Fed. The are two Designee Oversight Committee meetings (March and November) and one Responsible Senior Office Committee meeting (May) per annum. The meetings provide the attendees the opportunity to engage with the New York Fed supervisors on CLS-related activities. Furthermore, the attendees also meet with the senior management of the CLS Bank to discuss issues relating to CLS, for example, CLS Bank's strategic initiatives. Attendees are also expected to provide feedback with regard to important payment system developments in their own jurisdictions.

18.3.2 Bank for International Settlements

Officials of the NPSD are members of the CPMI of the BIS and regularly participate in various working groups of this structure. The SARB participated in the task force[14] created by the CPMI of the BIS and the World Bank Group to analyse the role of payments and payment services in advancing financial inclusion. The work of the task force culminated in the publishing of a final report after receiving input from the public consultation process in April 2016. 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 serve as a gateway to other financial services.

14. The task force is known as the Payment Aspects of Financial Inclusion (PAFI).

The NPSD also participated in the meetings of the CPMI Retail Payments Working Group. The main purpose of this working group is to examine innovations related to speed as well as operating hours for retail payment systems along with related issues for end users, payment services providers and central banks and, more broadly, their importance for demand and supply in the retail payment environment. The activities of the working group culminated in the publication of the report titled 'Fast payments: enhancing the speed and availability of payments' in November 2016.

15. For the latest publication (2014 statistics), see http://www.bis.org/publ/cpss116.

The BIS publishes the BIS Red Book[15] that provides statistics on payments as well as payment, clearing and settlement systems in CPMI countries on an annual basis. During the period under review, the NPSD contributed 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 NPSD 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 and correspondent banking relationships.

D. Domestic and regional settlement system activities

19. Domestic

19.1 SAMOS replacement project

The SAMOS system was implemented in March 1998 and is a critical pillar of the NPS. The SARB, through the NPSD, is the operator of the SAMOS system and is therefore responsible for the SAMOS business operations.

A review of the SAMOS system is conducted every five years to ensure that the system still meets the business requirements of the South African payments landscape, and that it is still aligned with best practices from a business and technology perspective. The SAMOS replacement project that was initiated in 2015 continued in 2016.

A request for proposal (RFP) was issued by the NPSD inviting solution providers to submit proposals relating to the SAMOS replacement project. Four solution providers with a proven record of accomplishment in the supply and implementation of RTGSs and related application software solutions responded to the RFP. These responses were evaluated against the requirements stipulated in the RFP.

'Show and tell' sessions with the bidding solution providers were completed in February 2017 and it is envisaged that the project with the selected solution provider will be initiated by the first quarter of 2018, after which a final project plan will be agreed with the industry.

SAMOS was added to the PASA Modernisation of Payments project, and the industry committed to adopt and implement the ISO20022 messages standard.

While the SAMOS replacement project is underway, the NPSD is still responsible for managing and maintaining the current system. No changes were implemented in 2016 as part of a version or release of the SAMOS system.

19.2 Non-similar contingency arrangements

In response to the CPMI-IOSCO report titled 'Guidance on cyber resilience for financial market infrastructures' published in June 2016, the NPSD launched an investigation of a non-similar contingency arrangement for SAMOS. The SWIFT Market Infrastructure Resiliency Service (MIRS) was identified as a possible solution that would meet the requirements laid out in the CPMI guidance report. In this regard, SWIFT was requested to provide a proposal for implementation of a MIRS solution. The MIRS solution should be based on the current SAMOS system with envisaged alignment to the new SAMOS system when the new system is implemented. A decision in this regard was taken in the second quarter of 2017. The implementation date for the SAMOS replacement is envisaged for the middle of 2019.

19.3 SAMOS system PFMI self-assessment

The NPSD, in its role as the operator of the SAMOS system, published the first self-assessment report that was conducted in 2014 on 3 February 2017. The self-assessment was conducted in terms of the PFMIs issued by the BIS CPMI and IOSCO in April 2012.

The self-assessment report was compiled in accordance with the disclosure framework outlined in Principle 23 of the PFMIs and outlines the observance of the principles based on the status of operations of the SAMOS system as at April 2014. All actions undertaken by the SAMOS operator to ensure continued or full observance of the principles subsequent to the report will be disclosed in the self-assessment report that will be undertaken in 2018.

20. Regional

20.1 Developments in SIRESS

During the period under review, the SIRESS operator implemented a number of projects, including the integration of SIRESS and the SARB's financial reporting system as well as the automation of the billing process.

Five additional SADC member states were on-boarded: Seychelles was on-boarded in July 2016; Angola, Botswana and Mozambique were on-boarded in October 2016; and the Democratic Republic of Congo was on-boarded in November 2016. About 11 banks were on-boarded from the above countries during this phase. One additional bank was on-boarded from the participating countries. Two participant banks terminated their participation in SIRESS due to mergers and buy-outs in their respective countries.

Three staff members from the SADC central banks were attached to the SIRESS operations. Two staff members from the Bank of Angola were attached from October 2016 to January 2017, and the staff member from the Bank of Mozambique was attached from March to May 2017. As stated in earlier reports, the attachment initiative is in line with the cooperative and collaborative agreement between the regional central banks to share knowledge and acquaint regional central bank staff with the SIRESS operations, including systems and processes.

E. Statistical overview

21. Settlement in the SAMOS system

Table 1 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 2016/17.

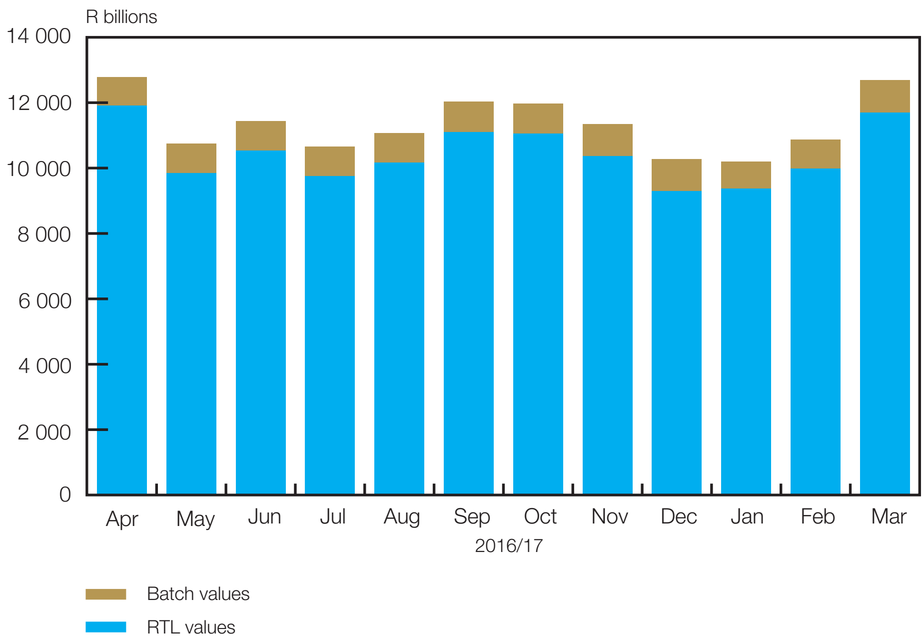
Table 1: Values settled in SAMOS

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Growth: 2009/10 to 2016/17	2016/17 monthly average
	R billions								Per cent	R billions
Real-time line (RTL)[1]	66 988.81	70 473.10	76 327.81	79 174.30	88 316.18	102 271.77	113 649.00	125 050.63	86.67	10 420.89
Electronic funds transfer (EFT) credits[2]	4 411.06	4 903.98	5 498.64	6 157.46	6 914.33	7 492.33	8 031.54	8 537.44	93.55	711.45
EFT debits[3]	498.58	538.09	610.35	687.23	695.13	650.22	675.69	705.66	41.53	58.80
Cards[4]	256.46	318.13	388.71	519.49	675.35	800.58	926.41	1 066.07	315.69	88.84
Cheques	944.33	810.53	685.73	399.10	258.02	199.02	151.09	115.91	-87.73	9.66
Automated teller machines (ATMs)	79.76	94.01	105.32	123.10	134.88	152.36	172.26	186.40	133.69	15.53
AEDO	4.49	5.15	5.54	5.35	7.25	9.16	10.84	13.33	196.91	1.11
NAEDO	32.36	46.14	60.86	75.52	84.84	95.84	99.34	110.84	242.50	9.24
Real-time clearing (RTC)[5]	27.53	43.91	75.42	121.61	146.05	178.17	209.64	271.55	886.36	22.63
Total settlement amount	73 243.38	77 233.05	83 758.38	87 263.15	97 232.03	111 849.47	123 925.81	136 057.84	85.76	1 259.79

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.

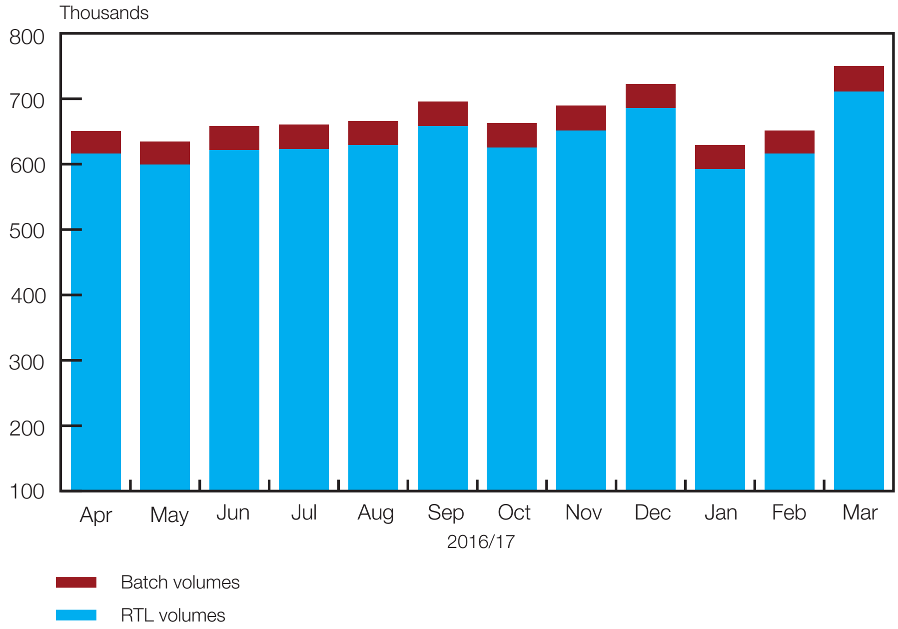
21.1 RTL (high value) and retail (low value) batch settlement values, April 2016 to March 2017

Figure 3: RTL and batch settlement values



21.2 RTL and retail batch settlement volumes, April 2016 to March 2017

Figure 4: RTL and retail settlement volumes



21.3 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.

Table 2: Infrastructure access points and payment instruments

	2010	2011	2012	2013	2014	2015	2016	Growth 2009 to 2016
	Number							Per cent
No. of ATMs	23 259	24 063	22 901	26 133	27 774	28 906	29 643	27
No. of mini-ATMs[1]	3 385	2 335	2 475	2 706	2 672	2 004	2 000	-41
No. of self-service device terminals (SSTs)[2]	1 562	1 645	1 722	1 720	1 386	1 022	1 065	-32
No. of point-of-sale devices[3]	273 798	277 478	254 368	308 824	393 883	394 309	402 670	47
No. of cards	57 827 824	62 211 297	44 796 838	45 010 160	61 303 189	50 236 849	50 935 160	-12

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.

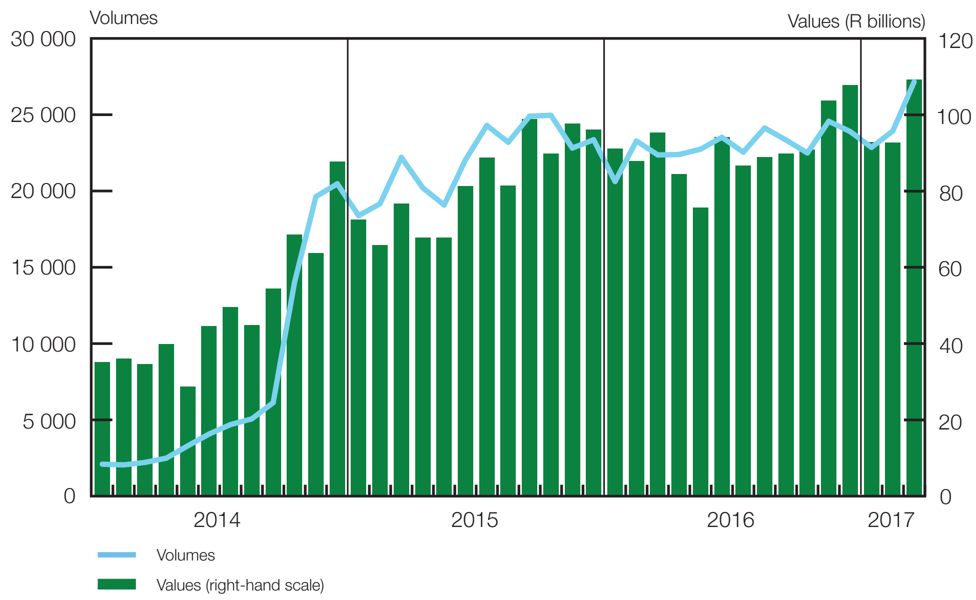
Figures as at 31 December for each period (only available from 2010)

22. Settlement in SIRESS

On average, the number of transactions settled in SIRESS was consistent during the period under review. SIRESS reached a milestone of settling ZAR2 trillion in early April 2016, which increased to the ZAR3 trillion mark in March 2017. In 2016 a peak in the monthly settlement to the value of only ZAR107.71 billion was reached in December.

22.1 SIRESS: transaction volumes and values of transactions settled – CPL and RTL (excluding funding) since inception to March 2017

Figure 5: SIRESS volumes and values of transactions



22.2 SIRESS: participation as at March 2017

In SIRESS, the total number of participating countries grew to nine, with the participant banks (including central banks) growing to 83.

Table 3: SIRESS participation in March 2017

SIRESS participation: countries	Numbers
Participating countries	14
SIRESS participation: banks	
Participating central banks (as participant banks)	7
Participating commercial banks	76
Total number of participants	83
SIRESS participation: regional clearing and settlement operators	
Retail clearing operators	1
Retail streams	
None	0

F. Conclusion

The regulatory framework for the payment infrastructures is being reformed in line with rapid changes in the payment system environment as well as technological advancements and developments. The role of the SARB 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 SARB will ensure that the effective regulation and 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
BSD	Bank Supervision Department
CLS	Continuous Linked Settlement
CPL	continuous processing line
CPMI	Committee on Payments and Market Infrastructures
CPSS	Committee on Payment and Settlement Systems
CVM	customer verification method
DLT	distributed ledger technology
EDO	early debit order
EFT	electronic funds transfer
EMV	Europay, MasterCard and Visa
FIC	Financial Intelligence Centre
FinStab	Financial Stability Department
FMI	financial market infrastructure
FSB	Financial Services Board
FSCA	Financial Sector Conduct Authority
FSR Act	Financial Sector Regulation Act 9 of 2017
IDP	Interchange Determination Project
IMSG	Implementation Monitoring Standing Group
IOSCO	International Organization of Securities Commissions
MIRS	Market Infrastructure Resiliency Service
MTO	money transfer operator
NAEDO	non-authenticated early debit order
NCR	National Credit Regulator
NPS	national payment system
NPS Act	National Payment System Act 78 of 1998
NPSD	National Payment System Department
NPSSB	National Payment System Strategy Body
PASA	Payments Association of South Africa
PAYIR	Payment Information Return
PCH	payment clearing house
PFMIs	Principles for financial market infrastructures
PIN	personal identification number
PSMB	payment system management body
PSO	PCH system operator
PSOC	Payment System Oversight Committee
RFP	request for proposal
RTC	real-time clearing

RTGS	real-time gross settlement
RTL	real-time line
SADC	Southern African Development Community
SAMOS	South African Multiple Option Settlement [system]
SARB	South African Reserve Bank
SARB Act	South African Reserve Bank Act 90 of 1989, as amended
SIRESS	(SADC) Integrated Regional Electronic Settlement System
SO	system operator
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TPPP	third-party payment provider
VC	virtual currency