The National Payment System in South Africa

1995 to 2005

South African Reserve Bank

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1 Background

1.1 In the late 1980s, the risks emanating from the settlement of payment-related activities increasingly became of particular concern to central banks. The Bank for International Settlements (BIS)[1] gave this issue further prominence when it started publishing reports highlighting the risks associated with the payment system. These reports highlighted the discomfort of central banks with the level of credit and liquidity risks to which participants in the payment system were exposed. Furthermore, concern was also raised about the regulatory and supervisory responsibilities of central banks in the payment system.

1.2 In response, central bank governors agreed to establish an ad hoc committee to investigate the findings of the various reports. Consequently, the Committee on Payment and Settlement Systems (CPSS)[2] was established at the BIS. It has become a trend, especially among the central bank fraternity, to pay regular attention to payment systems. This is part of the contribution that central banks make to overall financial-system stability.

1.3 With the reintegration of South Africa into the world economy in the early 1990s, it was clearly evident that this would bring increased obligations to ensure that the domestic clearing and settlement systems and risk management procedures conformed to international best practice.

1.4 In February 1994, the banking industry requested the South African Reserve Bank (Bank) to take the lead in the modernisation process of the domestic payment system. The national payment system (NPS) project, which was initiated by the Bank in April 1994, was launched as a collaborative effort between the Bank and the banking industry and the initial focus was to formulate a long-term strategy for the modernisation and development of the domestic payment system. This initial work resulted in the development of the *South African National Payment System Framework and Strategy Document* (the so-called Blue Book) which was published by the Bank in 1995[3]. The Blue Book contained the vision and strategy for the NPS up to 2004.

1.5 The NPS is a broad concept which not only entails systems to clear payments (cheques, electronic and card payments) between banks, but encompasses the total payment process. This includes all the systems, mechanisms, institutions, agreements, procedures, rules, laws etc. that come into play from the moment an end-user issues an instruction to pay another person or a business, to the final settlement between banks at the Bank. The NPS therefore enables transacting parties to exchange value to conduct business efficiently.

1.6 At the end of 2003, a review of all the strategies identified in the Blue Book was done. The review showed that all the major payment system strategies identified in the Blue Book had been achieved. The domestic payment system was functioning well with the domestic real-time gross settlement (RTGS) system implemented, the legal framework in place and various domestic risk-reduction measures implemented.

1. The BIS is an international organisation, which promotes international monetary and financial co-operation, and performs the function of a bank for central banks. For more information go to: www.bis.org.

2. The CPSS endeavours to strengthen the international financial market infrastructure through promoting sound and efficient payment and settlement systems. For more information see: www.bis.org.

3. www.reservebank.co.za> SARB Activities>Payment & settlement system>Framework & Strategy>First Edition – November 1995.

2 The South African national payment system in 1995

2.1 Defining the national payment system

2.1.1 The Blue Book described the NPS and placed it in its wider context[4].

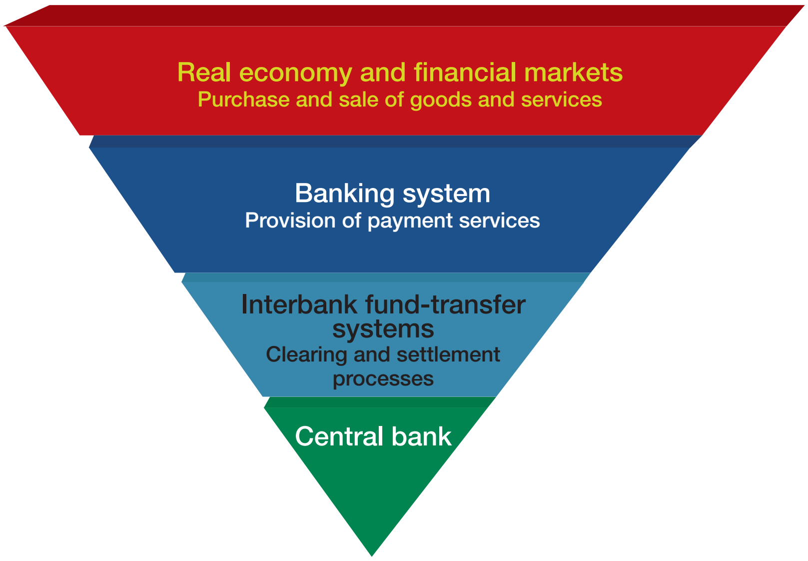
2.1.2 According to the central banks in the European Community at the time, "a payment system consists of a defined group of institutions and a set of instruments and procedures, used to ensure the circulation of money in a geographic area, usually a country. Any country's economy can be shown as a series of layers in an inverted pyramid, in which each layer is supported by all the layers beneath it. The broadest layer of the pyramid represents the real economy and the financial markets – the buying and selling of goods and services throughout the nation. It is supported by the country's banking system – the next level of the pyramid – which provides payment services. The third level consists of a limited number of interbank fund-transfer systems through which payment transactions are processed. The final settlement of payment transfers takes place across the accounts which banks hold with the central bank, whose pivotal role is vital for the functioning of the economy as a whole."[5]

4. Definition of the national payment system, as described in the Blue Book p. 10 – 11.

5. Issues of Common Concern to the EC Central Banks in the Field of Payment Systems, September 1992, p. 8.

2.1.3 The document further described that the NPS was therefore a core component of the broader financial system and should be viewed as the infrastructure that provides the economy with the highways for processing the payments resulting from various economic activities. The NPS would support the full spectrum of financial activity, from the South African businesses transacting in the global market to servicing the individual payment requirements of South Africa's population.

The payment system in the context of the economy



2.1.4 It was identified that the NPS would require a delicate balance between market-driven competition, co-operation and public-good considerations. Banks and other customer payment-service providers would compete for payments businesses and customers, while the efficiencies of sharing infrastructure would necessitate that the participants also co-operate in setting up non-competitive infrastructures. In the national interest, it was imperative that economies of scale be achieved and national payment-service infrastructure be created to allow as many participants as possible to offer their services to the public.

2.2 Components of the national payment system

2.2.1 The NPS would consist of the following components:

a. Banks providing financial intermediation;
b. a legal and statutory framework;
c. rules, regulation and agreements;
d. a number of payment instruments and payment streams;
e. system processes and procedures;
f. a technological infrastructure;
g. payment and settlement transactions;
h. providers of access to payment-related services; and
i. end-users of the different products provided by the customer payment-service providers.

2.3 Scope of the national payment system

2.3.1 The NPS would encompass all payment-related activities, processes, mechanisms, institutions and users.

2.3.2 The term NPS therefore referred to payment systems in the widest context and was not restricted to NPS mechanisms only. The term NPS mechanism was used to refer to the physical infrastructure, such as payment-processing utilities, networks, computer systems, etc.

2.4 The payment network in 1995

6. Strategy 1, as described in the Blue Book p. 28.

2.4.1 In 1995 the payment system depended on an unsophisticated and manually operated settlement system. Electronic networks were limited, and in order to meet the strategy identified in the Blue Book, an online central bank settlement system needed to be developed (strategy 1)[6] to enable banks to effect interbank transactions electronically.

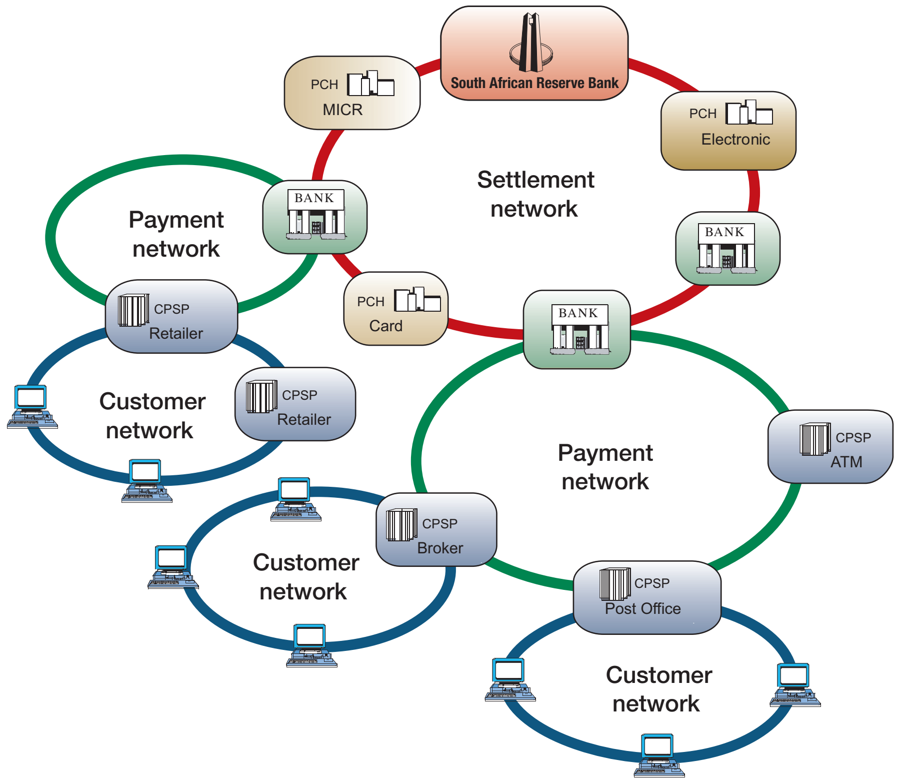
2.4.2 The strategy focused on the development of a sophisticated settlement system that was linked to a highly secure settlement network, enabling banks to make interbank funds transfers via the central bank settlement system.

2.4.3 The settlement system would provide the facilities for banks to settle their obligations on an immediate real-time basis providing guaranteed settlement, in other words, RTGS.

2.4.4 To give effect to this vision, a comprehensive payment system network, which would address the requirements from a customer, bank, clearing and settlement point of view needed to be implemented.

2.4.5 This vision led to the development of a network depicted in the diagram below which identified the individual networks and interaction points with one another.

The payment system network - 1995



2.4.6 Of importance was the role that the banks, including the Bank, would fulfil in providing the vehicle to enter the payment system and settle payment instructions.

2.4.7 Different networks were needed to facilitate the processing of a payment instruction. On the customer level there were retailers, brokers and other entities, such as the Post Office, that could initiate the processing of a payment instruction. At this level the instruction would be captured and prepared for input to the banking system, and the next level of the payment system network.

2.4.8 The payment network would comprise the banks, as recipients of the customer deposits and payment instructions, and the operators that would continue to determine interbank obligations for the various payment streams.

2.4.9 Wherever interbank obligations arose in the individual payment streams, these obligations would need to be introduced into the settlement network, where interbank settlement could be effected across the books of the Bank.

3 The South African national payment system from 1995 to 1998

3.1 After the publication of the Blue Book in 1995, the Bank and other stakeholders commenced with the implementation of the identified strategies.

3.2 The development of a real-time gross settlement system

3.2.1 In the development of the NPS, one of the first objectives for the Bank was to develop a solution that could provide an effective and safe mechanism for the exchange of money between transacting parties, and thereby enable the safe and efficient transfer of money in the financial system. The second objective was the development of an acceptable NPS legal framework to operate within.

3.2.2 From 1996 to 1998 the Bank, along with the banking industry and local technology providers, developed a sophisticated, state-of-the-art RTGS system for high-value interbank transactions.

3.2.3 The South African Multiple Option Settlement (SAMOS) system was introduced on 9 March 1998. SAMOS brought domestic interbank settlement practices in line with international best practice and signalled the start of a new era for payment practices in South Africa.

3.2.4 SAMOS forms the core of the South African payment system, and is owned and operated by the Bank. SAMOS provides the facilities for banks to settle their obligations on a real-time basis. It is linked to the various participant banks, the designated settlement system[7], the clearing systems and operators.

7. Refers to section 4A of the National Payment System Act No 78 of 1998, as amended.

3.2.5 SAMOS was designed to provide a dynamic collateral facility within the system whereby, should a bank not have sufficient funds available in its settlement account to settle an instruction, a loan would automatically be granted to the participant against acceptable collateral reserved in the system. The value of such a loan is limited to the collateral value of the assets reserved for this purpose.

3.2.6 The second version of SAMOS was introduced on 5 October 1998. SAMOS version 2 added the functionality of providing banks with the facility to choose a specific date and time at which they require settlement instructions to be executed. This facility is known as the “Scheduled List” facility.

3.2.7 With the implementation of SAMOS version 2 the total amount settled by way of single settlement instructions in the system increased to more than 64 per cent of the total interbank settlements, thereby reducing the potential for systemic risk[8] in the South African NPS.

8. The risk that the failure of one participant in the settlement system to meet its required obligations will cause other participants to be unable to meet their obligations when due. Such a failure may cause significant liquidity or credit problems and as a result threaten the stability of the entire payment system.

3.3 The messaging network

3.3.1 Payment instructions are issued via messages from payers to beneficiaries.

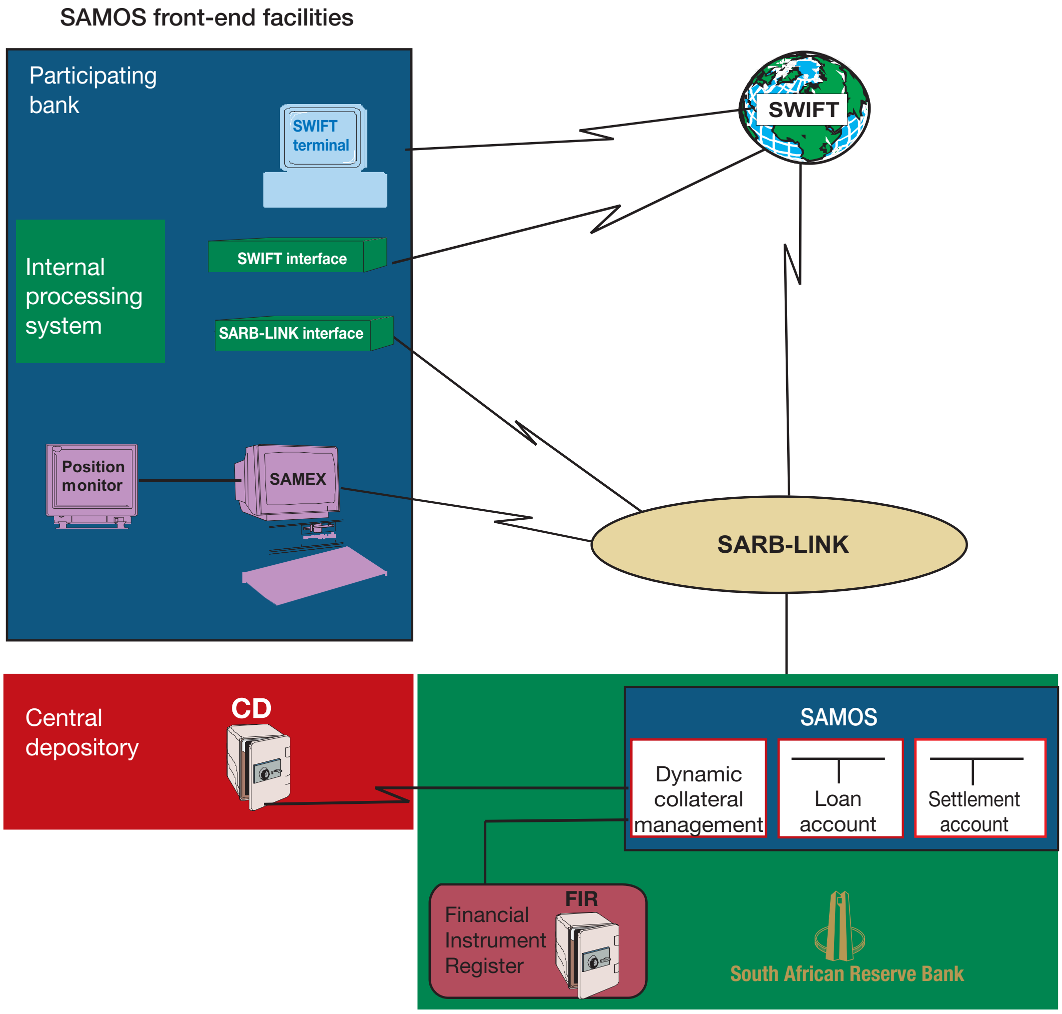
3.3.2 With the development of SAMOS, the Bank agreed with the banking industry that provision would be made for two message carriers. Due to the sizeable investment by the banking industry in the Society for Worldwide Interbank Financial Telecommunication (SWIFT)[9], at the time, it was decided that banks could use SWIFT to transfer payment messages between themselves and the SAMOS system.

9. SWIFT – supplier of secure messaging services and interface software to wholesale financial entities. For more information go to: www.swift.com.

3.3.3 An alternative mechanism was, however, also established for those banks that did not have SWIFT, or would prefer to use a domestic message carrier, called SARB-LINK which used software, namely the MQ Series (message carrier application on the proprietary network).

3.3.4 The message networks available to participants is depicted in the accompanying diagram.

Messaging network available to banks



3.4 The legal foundation of the South African national payment system

3.4.1 The Blue Book proposed that the then legal framework for the South African NPS be revised and the statutory powers and responsibility of the Bank regarding the payment system be legally entrenched. It was further recommended that the legal framework supports the legal enforceability of payment-service agreements and provides for legal certainty regarding industry practices.

3.4.2 The South African Reserve Bank Act No 90 of 1989 (SARB Act)[10] was amended to elucidate the role and responsibility of the Bank in the domestic payment system. Following from this amendment, the role and responsibility of the Bank were entrenched in law and described in section 10(1)(c)(i) of the SARB Act. This section of the SARB Act empowered 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."

10. www.reservebank.co.za> About us> Regulations.

3.4.3 The Bank had been given the power to govern the entire payment process, from the time that a payment is initiated by a payer until such time as the beneficiary receives the money. The authority to perform the functions as provided for in the SARB Act was vested in the National Payment System Department (NPSD) within the Bank.

3.4.4 The Bank, in conjunction with the banking industry, drafted legislation for the participants and users of the NPS, and in October 1998 the National Payment System Act No 78 of 1998 (NPS Act)[11] was promulgated.

11. www.reservebank.co.za> SARB Activities>Payment & settlement systems>NPS Act.

3.4.5 The purpose of the NPS Act can be summarised as 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."

3.4.6 The NPS Act furthermore provided for the regulatory and supervisory powers of the Bank to manage and control payment system risks.

3.5 The payment system management body

3.5.1 A further strategy identified in the Blue Book was the establishment of an umbrella body to manage the conduct of participants in the payment system. Culminating from this strategy, the Payments Association of South Africa (PASA)[12] was founded on 26 September 1996.

12. www.pasa.org.za.

3.5.2 The NPS Act provided the payment system management body with the guidelines under which it could operate, and the functions to be performed by such a management body. In terms of the NPS Act, the Bank has reserved the right to recognise, or withdraw recognition, from such a payment system management body, should the body fail to perform the functions as envisaged by the Bank. The Bank recognised PASA as a payment system management body in June 1999 under the provisions of the NPS Act.

4 The South African national payment system from 1999 to 2001

4.1 After the implementation of the SAMOS system and the promulgation of the NPS Act, a period of consolidation followed.

4.2 SAMOS was designed to settle all payment instructions on a pre-funded (credit-push)[13] basis. This was in line with the fundamental principle stated in the Blue Book, that settlement would be subject to the availability of funds.

13. The payer initiates (push) the transfer of funds from an account. The payer can only do this if the payer has funds available in an account. The credit-push methodology reduces risk in the payment system.

4.3 The SAMOS system introduced in 1998 provided participants with only one settlement option, namely the real-time line (RTL) option. The RTL facilitates the gross settlement of individual large value transactions in real time on a credit-push basis, as well as the delayed settlement of retail payments and securities.

4.4 SAMOS version 3 was implemented during July 1999. In this version of SAMOS, a facility known as the Continuous Processing Line (CPL) was introduced. The CPL functionality provided an alternative settlement option to the RTL option.

4.5 The CPL allowed for the delayed, but continuous, processing of settlement instructions and included a liquidity optimiser or gridlock diffuser. This meant that within a CPL agreement, SAMOS would settle any single settlement instruction as soon as sufficient funds were transferred to the relevant CPL. This settlement option provided a delayed settlement option to participants, specifically to settle a number of eligible payment instructions together within a CPL agreement on a gross basis, utilising net funding (liquidity). Funding for a CPL account may be accomplished either through the transfer of funds by the participant from its settlement account, or through the receipt of funds from another participant in the same CPL agreement.

4.6 Delivery versus payment for financial-market transactions

4.6.1 The settlement of interbank obligations, emanating from financial-market transactions, which include equity, bond and money-market transactions, settle in SAMOS via the securities settlement systems.

4.6.2 SAMOS version 4, implemented on 6 October 2001, included the Continuous Batch Processing Line (CBPL) settlement option that enabled banks to fund only net obligations in a full batch. The CBPL functionality was incorporated for STRATE[14], thereby facilitating the settlement of financial-market transactions, and promoting delivery versus payment (DvP) in the domestic settlement system.

14. The South African securities settlement system is known as STRATE (the acronym for Share Transactions Totally Electronic) and is owned by the Johannesburg Securities Exchange (JSE) and the South African registered banks. For more information go to: www.strate.co.za.

4.6.3 The CBPL functionality enabled an NPS operator or a Financial Market Exchange to send instructions in batches for settlement to SAMOS on behalf of participants linked to the payment system. Participants still had to fund their net obligations in the batch, and settlement would only take place when all banks had funded their net obligations in the CBPL.

4.6.4 While the CPL was designed to settle single-settlement instructions as soon as possible, the CBPL was developed to settle batched payment instructions on an "all-or-nothing" basis.

4.7 Risk-reduction strategies

4.7.1 A number of strategies in the Blue Book highlighted the importance of reducing risks in the retail environment of the NPS. Since the inception of the NPSD, one of the focus areas of the department has been to steer the NPS and its participants towards compliance with the BIS Core Principles for Systemically Important Payment Systems (SIPS)[15]. In support of this objective of compliance to the BIS principles, the NPSD has actively worked to identify, evaluate, measure, prioritise and reduce payment system risks, where possible.

15. A payment system is systemically important where if the system were insufficiently protected against risk, disruption within it could trigger or transmit further disruptions among participants or systemic disruptions in the financial area (BIS Glossary of terms used in payment and settlement systems, March 2003). For more information go to: www.bis.org>publ>cpss43.htm.

4.7.2 In September 2000, the NPSD published a position paper (1/2000)[16] which identified measures that the NPSD deemed would reduce risks in the system, specifically the retail environment. The areas addressed related specifically to the development and finalisation of Payment Clearing House (PCH) agreements, the implementation of item limits in the various payment systems and the introduction of value on the same day of settlement in SAMOS.

16. www.reservebank.co.za> SARB activities>Payment & settlement systems>Position Papers.

4.8 Payment Clearing House agreements

4.8.1 Prior to the formalisation of the NPS, participants in the payment system operated according to certain technical and clearing rules, with no formal (or outdated) agreements in place relating to bi-lateral arrangements between the banks. PASA was tasked with the development and formalisation of PCH agreements in conjunction with participants in the payments industry.

4.8.2 The intention with the PCH agreements was to update and formalise the relationship between participants in the various payment systems. By developing PCH agreements the legal framework of the NPS was further strengthened.

4.8.3 The processing of payment instructions in any particular payment system is performed in accordance with the PCH agreement and all the banks participating in the system act under the authority of the responsible PCH participant group[17]. All PCH participant groups fall under the auspices of PASA.

17. For the sake of efficiency, PCHs management committees referred to as PCH participant groups have been created to manage groupings of PCH agreements.

4.9 Item limits

4.9.1 With the introduction of SAMOS it soon became evident that certain retail payment systems were being used incorrectly for high-value payments and excessive exposures were being created in the various payment systems. The Bank regarded the exposures being created in the retail payment systems as posing a risk to the entire payment system. The Bank consulted with the participants in the retail payment system whereupon the participants agreed in principle to remove the high values from these payment systems in order to reduce settlement risk.

4.9.2 The solution that the participants proposed led to a limitation of item values for specific payment instruments in the retail payment systems. The Bank supported the measures suggested by the industry. In addition to reducing settlement risk, the implementation of item limits increased the value of payments settled on an immediate finality basis in SAMOS to more than 90 per cent. The retail payment systems were therefore reduced to less than 10 per cent of the total value of settlement in SAMOS. Item limits were fully implemented in all payment systems by the end of January 2002.

The following item limits were agreed upon for implementation in the various payments systems.

Risk-reduction measures – item limits

Payment system	CLC (cheque)	EFT credit	EFT debit	ZAPS[18]
Item limit (maximum)	R5 million	R5 million	R500 000	R5 million
Implementation date	January 2002	January 2002	January 2002	January 2001

18. The ZAPS system is a SWIFT-based payment stream used for electronic credit payment instructions.

The different item limits in each payment system have been incorporated into the PCH agreements.

Values settled in SAMOS – before and after implementation of item limits

	December 2005		September 2003		January 2001	
	R millions	Per cent	R millions	Per cent	R millions	Per cent
Total value processed	3 619 455		3 591 359		4 074 221	
Real-time line	3 212 251	88,75	3 290 163	90,90	1 960 491	54,17
Cheque system (CLC)	116 705	3,22	115 353	3,19	274 641	7,59
EFT credits	241 065	6,66	160 186	4,43	246 830	6,82
EFT debits	24 611	0,68	16 534	0,46	n/a	
ZAPS system	6 172	0,17	5 917	0,16	28 721	0,79
Debit card	2 658	0,07	315	0,01	n/a	
SASWITCH system	4 465	0,12	2 889	0,08	2 210	0,06

4.10 Settlement on day of value

4.10.1 Another risk reduction measure identified by the Bank was the move to settlement on day of value and the discontinuation of the practice whereby PCH batches[19] were settled as per the previous business day.

19. A batch is the transmission or processing of a group of payment orders (instructions) and/or securities transfer instructions as a set at discrete intervals of time. BIS Glossary of terms used in payment and settlement systems, March 2003.

4.10.2 As from 7 May 2001 all PCH batches were settled immediately upon receipt in the SAMOS system and were no longer scheduled for 07:00 on the next business day. This change resulted in a significant decrease of between 8 and 14 hours of the overnight exposures in the settlement system. This implied that the settlement of payment obligations for all payments, including the PCH batches, was now settling on the intended day of value.

4.11 Oversight of the national payment system[20]

20. www.reservebank.co.za>SARB Activities>Financial stability>Financial Stability Review>September 2004.

4.11.1 In July 2001, the Bank formally established its payment system oversight function. This function is vested within the NPSD of the Bank. The main focus area of the Oversight Division has been the reduction of payment system risks.

4.11.2 Since its inception, the South African oversight model has been aligned, developed and refined to cater for the needs of the domestic payment system, and at the same time adhering to international best practice.

4.12 Objectives of the oversight function

4.12.1 The Bank used the *BIS Core Principles for SIPS* as guidelines for the oversight of the payment system in South Africa.

The Core Principles and central bank responsibilities

Public Policy objectives: Safety and efficiency in systemically important payment systems

Core Principles for systemically important payment systems

i. The system should have a well-founded legal basis under all relevant jurisdictions.
ii. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
ii. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.
iv. The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.
v. A system in which multilateral netting takes place should, at the minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.
vi. Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
vii. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for their timely completion of daily processing.
viii. The system should provide a means of making payments which is practical for its users and efficient for the economy.
ix. The system should be objective and publicly disclosed for participation, which permit free and open access.
x. The system's governance arrangements should be effective, accountable and transparent.

Systems should seek to exceed the minima included in Core Principles IV & V.

Responsibilities of the central bank in applying the Core Principles

a. The central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important systems.
b. The central bank should ensure that the system it operates comply with the Core Principles.
c. The central bank should oversee compliance with the Core Principles by systems it does not operate and it should have the ability to carry out this oversight.
d. The central bank, in promoting payment system safety and efficiency through the Core Principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.

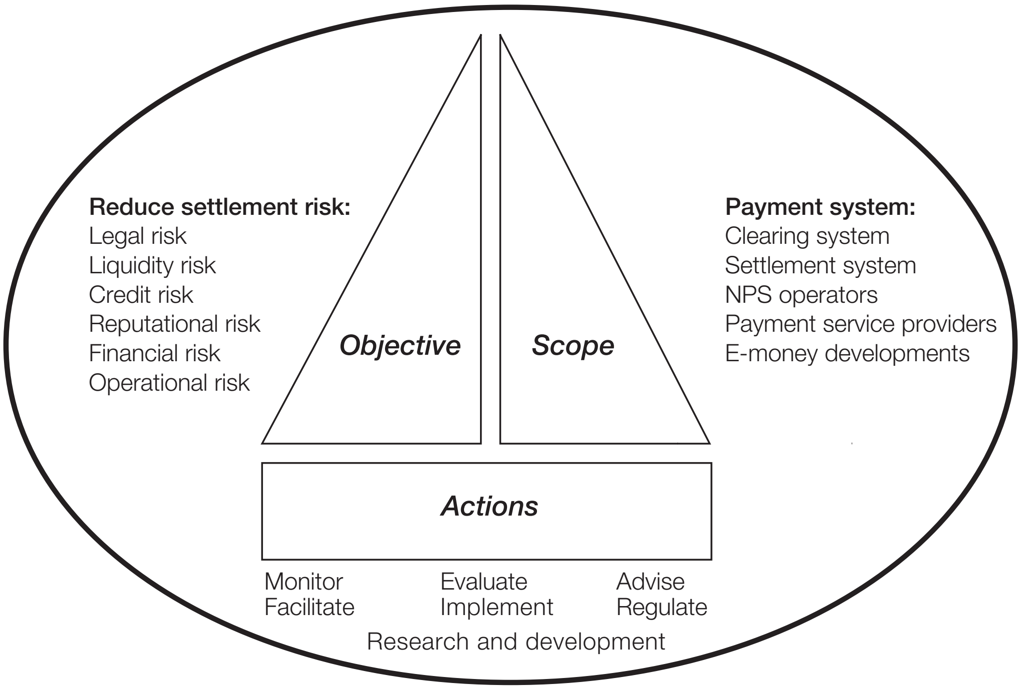
Source: Core Principles for Systemically Important Payment Systems. Committee on Payment and Settlement Systems (BIS) January 2001.

4.12.2 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.

4.12.3 As oversight developed the main focus areas were:

a. the development of an effective oversight model;
b. payment risks, that may have a systemic impact, are under control;
c. an efficient and safe settlement system; and
d. an efficient and safe clearing system.

Oversight of the payment system



4.13 The scope of the oversight function

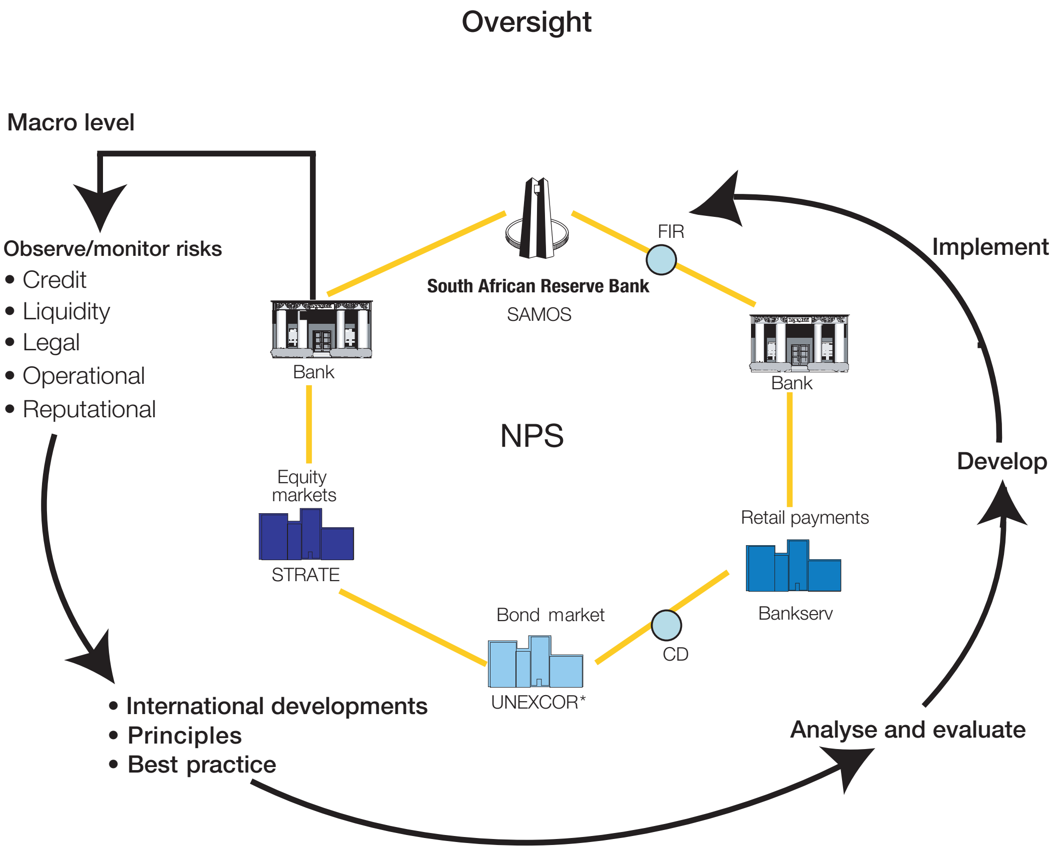
4.13.1 The oversight of the NPS spans the entire process of effecting a payment. This entails the full process of enabling a payer to make a payment (by means of issuing a payment instruction via a payment instrument, e.g. a debit or credit card) to the beneficiary receiving the funds in terms of the payment.

4.13.2 The scope of the South African oversight function includes all participants, third-party payment service providers, system operators, and agents.

4.13.3 Oversight of the domestic payment systems consists of wholesale (SIPS) as well as the retail payment systems (non-SIPS). SIPS forms the core of the payment system and is normally high in value and can have a direct systemic effect on the financial system. Non-SIPS usually consists of the retail payment systems individually. Together they can form a SIPS.

4.13.4 Initially oversight of the payment system in South Africa was conducted only on a macro level.

4.13.5 Included in the oversight mandate is the payment system infrastructure. This infrastructure includes instruments, systems, applications, networks, payment, clearing and settlement systems from a technology perspective.



** As from July 2003 all bond market transactions have been settled through STRATE.*

5 The South African national payment system from 2002 to 2003

5.1 Liquidity management

5.1.1 Early in 2002 the South African banking industry experienced liquidity crises among small and medium-sized banks resulting in the seventh largest bank in the country, Saambou Bank Limited, being placed under curatorship. Contagion set in after this event and confidence in the banking sector was under pressure. The contagion spread upwards, and BOE Bank Limited (BOE), the sixth largest bank in the industry, was seriously affected. Ultimately, this resulted in Nedbank Limited acquiring BOE [21].

21. www.reservebank.co.za> SARB activities>Bank supervision>Annual Report – 2002.

5.1.2 During the liquidity difficulty, the Bank identified the need to be able to monitor SAMOS participants' usage of intraday funding and collateral. As SAMOS was originally developed to allow participants to borrow against acceptable collateral reserved in the SAMOS system, should they not have sufficient funds in their settlement accounts, facilities were needed to monitor such a situation. SAMOS version 5 allowed for close monitoring of each bank's usage of its funds and provided an early warning signal to the Bank should any bank experience liquidity problems.

5.1.3 SAMOS version 5 was implemented in September 2002.

5.2 Participation in the Continuous Linked Settlement system[22]

22. www.cls-services.com.

5.2.1 The Bank issued a position paper[23] late in 2002 outlining its position with regard to participation in the Continuous Linked Settlement (CLS) system. In the position paper the Bank encouraged South African registered banks to become members of CLS. It also identified certain issues that needed to be resolved in order for the South African rand to become eligible as a CLS currency.

23. www.reservebank.co.za> SARB activities>Payment & settlement systems>Position Papers.

5.2.2 The issues identified were:

a. compliance with square-off parameters;
b. the legal framework; and
c. cost implications for the settlement members.

5.2.3 During 2003 the Bank participated in, and facilitated various discussions with all the stakeholders, and later in that same year two South African registered banks indicated their willingness to become settlement members for the rand. They were The Standard Bank of South Africa Limited and Absa Bank Limited.

5.2.4 The Bank initiated discussions with CLS as the domestic payment system arrangements and practices had to be aligned with international practice to link into the CLS system and meet all the requirements set by CLS.

The Continuous Linked Settlement system[24]

On an international level, the South African NPS network links into the CLS system.

CLS Services[25] defines CLS as "…a means to settle foreign exchange transactions finally and irrevocably within the CLS system."

The CLS system is a service being offered by CLS Bank International (CLS Bank) with the aim to reduce the risk associated with foreign exchange settlement transactions across different time zones.

24. www.cls-services.com.

25. CLS Services, based in London, provides operational and back-office support to CLS Bank. See the CLS website.

With the introduction of CLS, foreign exchange transactions in the CLS currencies[26] can settle simultaneously on a payment-versus-payment[27] (pvp) basis. This means that, in terms of the payment system, all foreign exchange settlements flowing through the CLS system are final and irrevocable.

The CLS concept was developed by market participants in the foreign exchange market in an attempt to address the regulatory concern regarding increasing values and volumes of foreign exchange transactions, as well as the systemic risk that is associated with the growth in the trade in the foreign exchange market.

CLS is the first global banking settlement system that extends the finality of fifteen of the world's central banks' domestic RTGS systems[28], combining them in a unique global real-time settlement system.

CLS eliminates settlement risk, improves liquidity management, reduces operational banking costs and improves operational efficiency and effectiveness.

With the acceptance of the rand as a CLS currency, South Africa has the ability to settle foreign exchange transactions via the CLS system through CLS Bank. The domestic (rand) legs of these transactions are settled in SAMOS.

26. CLS currencies include: Australian dollar, Canadian dollar, Danish krone, euro, Hong Kong dollar, Japanese yen, Korean won, New Zealand dollar, Norwegian krone, GB pound, Singapore dollar, South African rand, Swedish krona, Swiss franc and US dollar.

27. Payment versus payment is defined by the BIS as a mechanism in a foreign exchange settlement system which ensures that a final transfer of one currency occurs if and only if a final transfer of the other currency or currencies takes place.

28. In South Africa, the RTGS system is known as the South African Multiple Option Settlement (SAMOS) system.

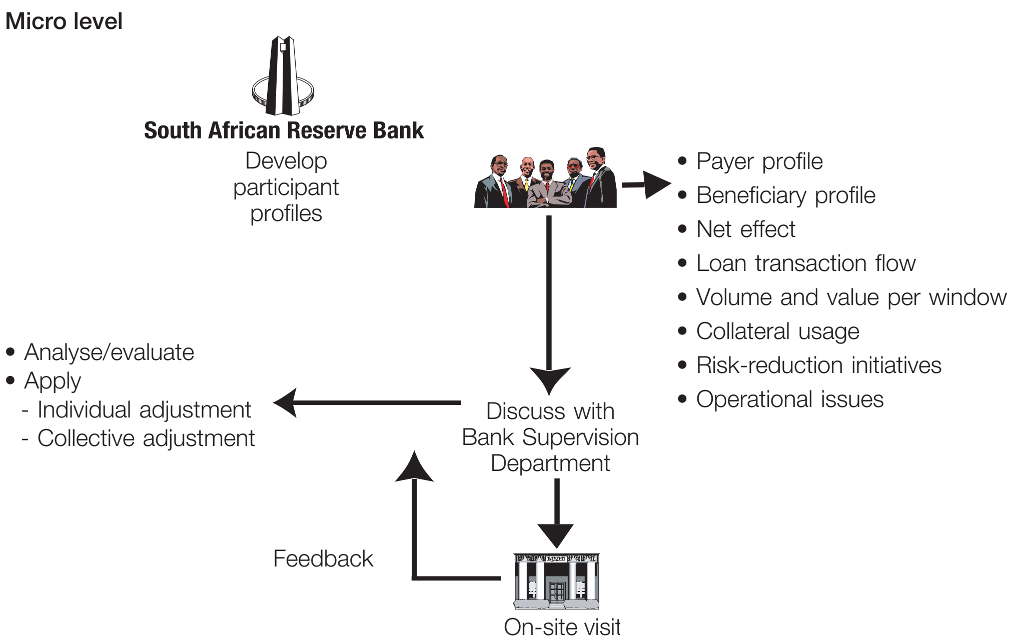
5.3 The development of oversight on a micro level

5.3.1 Micro oversight was developed after the liquidity crisis that the South African banks experienced during 2002. It resulted in profiles being created for all the individual participants in SAMOS, wherein the banks are evaluated in terms of their participation in the settlement system.

5.3.2 During 2003 the NPSD embarked on a process to do on-site visits of banks participating in SAMOS. Prior to, and after an oversight visit information is shared between the NPSD and the Bank Supervision Department.

5.3.3 Benefits from micro oversight include a better understanding of the payments business of participants, building of relationships with the participants and enhanced management information.

Oversight



6 The South African national payment system from 2004 to 2005

6.1 As the rand had been scheduled to be included as a CLS currency during the latter part of 2004, a number of initiatives, including amendments to the NPS Act, enhancements to SAMOS, and the implementation of same-day square-off[29] were required.

29. www.reservebank.co.za> SARB activities>Payment & settlement systems>Position Papers.

6.2 To meet these requirements, SAMOS version 6 was implemented during August 2004, including the move to same-day square-off in the domestic settlement system. Same-day square-off in SAMOS was the alignment of the settlement period of SAMOS with that of a business or calendar day.

6.3 Same-day square-off in SAMOS also made the settlement system compliant with the *BIS Core Principles for SIPS* (Core Principle IV) which relates to settlement occurring on the intended day of value.

6.4 Amendments to the NPS Act were promulgated in October 2004. Changes to the NPS Act included, among other things, the amendments to cater for the inclusion of the rand as a CLS settlement currency and the strengthening of the regulatory framework.

6.5 On 6 December 2004 CLS Bank[30] announced that four new currencies went live in the CLS system, one of them being the South African rand. This brought the number of currencies being settled through the CLS system at the end of 2004 to fifteen.

30. www.cls-services.com> Press Office>CLS News> December 2004.

6.6 2005 was a year for consolidation and the focus of the Bank moved again to the oversight of the settlement system.

6.7 Oversight of SAMOS and the resilience of the settlement system were highlighted. With the inclusion of the rand in the CLS system, the importance of the resilience of SAMOS was once again emphasised, along with the other auxiliary systems. The Bank embarked on an exercise to evaluate and review the settlement system applications and infrastructure. All systems and applications were found to be adequate and robust.

6.8 The Bank started another round of oversight visits to settlement participants. The focus of these on-site visits was on CLS specifically, and the impact that CLS had on the settlement system and participants.

6.9 The Bank decided to perform a self-assessment of the South African NPS during 2004. The focus of the self-assessment was on the level of compliance of the South African NPS in accordance with the BIS Core Principles for SIPS.

6.10 The self-assessment was done according to the joint World Bank/International Monetary Fund Financial Sector Assessment Program. The research for the self-evaluation was undertaken during 2004 and updated during 2005.

6.11 As a result of the self-evaluation, it was concluded that the South African NPS meets the criteria as stipulated in the *BIS Core Principles for SIPS*.

7 Conclusion

7.1 A new strategic framework and strategy document for the payment system entitled Vision 2010[31] was developed in 2005 and published in 2006. The purpose of Vision 2010 was to provide strategic direction for payment system development until the year 2010.

31. *www.reservebank.co.za> SARB Activities>Payment & settlement systems>Framework & Strategy>Vision2010.*

7.2 The following strategic objectives were identified in the Vision 2010 document:

a. Enhance and maintain the safety and efficiency of the payment system;
b. create a level playing field for participants while simultaneously adhering to sound payment system risk principles;
c. facilitate wider usage by the public and broaden the provision of payment services in the NPS;
d. participate in the Southern African Development Community payment, clearing and settlement system initiatives;
e. enhance and maintain the interoperability and operational effectiveness of the payment system;
f. increase general awareness of the features of the payment system; and
g. enhance the structures for consultation and transparency in the payment system.

7.3 The Bank, in conjunction with the industry, commenced with the implementation of some of the strategies during the latter part of 2006.