Oversight of the South African National Payment System

South African Reserve Bank

Comments and enquiries relating to this document should be addressed to:

The Head: National Payment System Department
South African Reserve Bank
P O Box 427
Pretoria 0001

Tel no.: 27-12-313 3442/3679

E-mail: npsdirectives@resbank.co.za

http://www.reservebank.co.za

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1. Introduction: Payment systems

A payment system, as defined by the Bank for International Settlements[1] (BIS), consists of a set of instruments, banking procedures and interbank funds transfer systems that ensure the circulation of money.

A national payment system is one of the principal components of a country's monetary and financial system and is, therefore, crucial to a country's economic development, since almost all economic transactions involve some form of payment. Payment and settlement systems thus play a crucial role in a market economy, and central banks have always had a close interest in them as part of their responsibilities for monetary and financial stability.

Well-designed and managed payment systems help to maintain financial stability by preventing or containing financial crises, and help to reduce the cost and uncertainty of settlement, which could otherwise act as an impediment to economic activity. Financial instability may be characterised by banking failures, intense asset price volatility, interest and exchange rate volatility, liquidity problems, and systemic risk, which are often manifested in the disruption of the payment and settlement system.

Payment systems not only entail payments made between banks, but encompass the total payment process, including systems, mechanisms, institutions, agreements, procedures, rules and laws. Modern payment systems also involve the settlement of substantial trade in financial instruments such as bonds, equities and derivatives.

Collegiality, co-operation and inter-operability are vital elements of a world-class payment system.

The purpose of this document is to discuss the South African payment system, outline possible risks that could be encountered in the system, and to describe the approach followed by the National Payment System Department[2] (NPSD) of the South African Reserve Bank[3] (the Bank) to oversee the system and its participants.

1. The BIS is an international organisation that fosters international monetary and financial co-operation and serves as a bank for central banks (see http://www.bis.org). The BIS published a document in May 2005 entitled "Central bank oversight of payment and settlement systems", which can be viewed at http://www.bis.org/publ/cpss68.htm.

2. For more information on the NPSD, see http://www.reservebank.co.za>Payments & settlement systems.

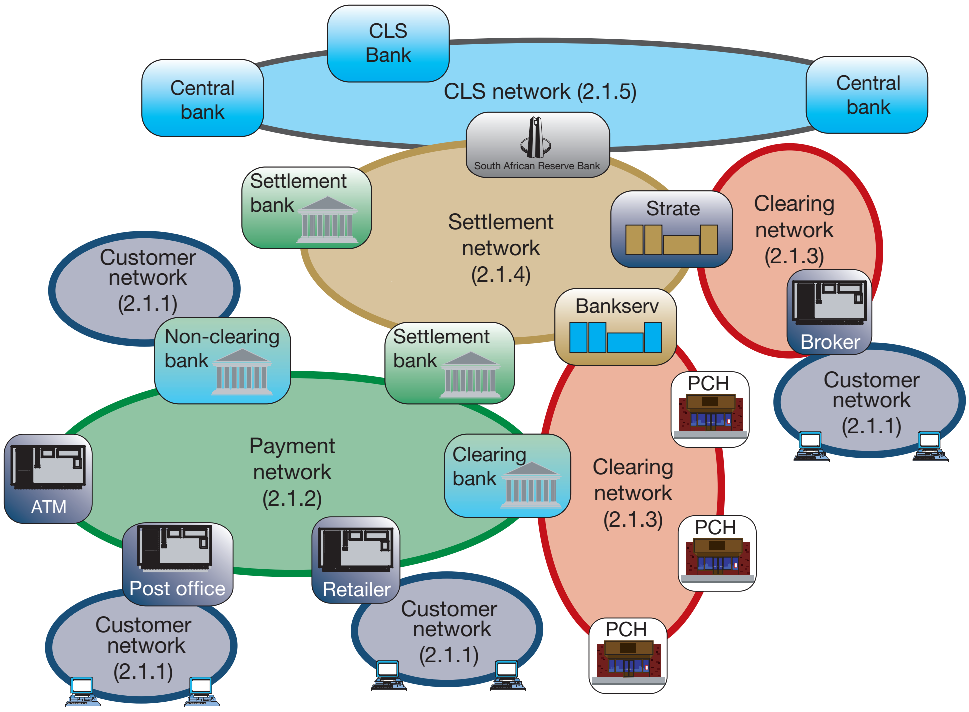
3. The South African Reserve Bank is the central bank of the Republic of South Africa (see http://www.reservebank.co.za).

2. The South African National Payment System

2.1 Payment system networks

Over the past few decades, the South African national payment system (NPS) has developed steadily into an efficient, sophisticated and complex environment. For clarification, the environment may be broken down into various interlinking networks that enable and facilitate the generation, transfer, verification and processing of a payment instruction.[4] A high-level view of the South African payment system and the various networks is depicted in Figure 1.

Figure 1 South African payment system networks



2.1.1 Customer network

Customers of banks use various payment instruments,[5] issued by banks to complete transactions. These transactions include, among other things, financial market transactions, and the ordinary purchase of goods and services.

Banks' business customers do not have direct access to the settlement network and, therefore, have to utilise the payment networks of participating banks in order to access the clearing and settlement networks. Customer networks include the networks that have been put in place by the business customers of the various commercial banks. Examples of these customers are public utilities and some of the major supermarkets. The customer networks enable business customers to participate in the payment system and provide payment services to their clients.

4. A 'payment instruction' is defined in the National Payment System Act, 1998 (Act No. 78 of 1998) (refer to footnote 10) as "an instruction to transfer funds or make a payment".

5. A 'payment instrument' is defined by the BIS as "any instrument enabling the holder or user to transfer funds".

Participants in the customer networks often provide additional value-added services to their customers. For this reason system operators[6] and third-person payment service providers[7] were formalised into a new category of participants in the NPS (see section 5.3).

2.1.2 Payment network

The South African payment network can be described as the systems and communications mechanisms put in place by commercial banks to provide their customers with the facilities and channels to effect payment. These networks include the bank-owned automated teller machines[8] (ATMs), Internet banking facilities, branch networks and payment instruments. The banking industry has been encouraged to develop payment instruments and systems that include electronic funds transfer[9] (EFT) mechanisms, debit orders, debit cards and credit cards.

Commercial banks take note of the banking requirements of their customers and provide robust, fit-for-purpose payment instruments that adhere to international best practice. Innovation, access, security and safety are important features taken into account when developing payment instruments.

2.1.3 Clearing network

'Clearing' is defined in the National Payment System Act, 1998 (Act No. 78 of 1998[10] (NPS Act)) as "the exchange of payment instructions". Traditionally, only banks were allowed in the clearing network. As the payment system evolved and became more sophisticated, more non-banks began to participate in the payment system, prompting the NPSD to re-evaluate the participation criteria in the clearing environment.

In November 2008 changes to legislation allowed the Bank to designate non-bank participants to clear in their own name in the clearing network. Settlement, however, continues to be the exclusive domain of the settlement system participant banks.

Also participating in the clearing domain is the payment clearing house (PCH) system operators, also known as 'clearing houses'. A 'PCH system operator' is defined in the NPS Act as "a person that clears on behalf of two or more settlement system participants". The BIS defines a 'clearing house' as "a central location or processing mechanism through which financial institutions agree to exchange payment instructions or financial obligations in securities trading". PCH system operators have been established to manage clearing of payment instructions between system participants, based on the rules and procedures of the clearing house.

Bankserv

The PCH system operator responsible for clearing and determining interbank obligations stemming from the retail payments environment is known as 'Bankserv'.[11] Bankserv is

6. A 'system operator' is any person who provides payment services to two or more persons in respect of payment instructions, which are typically from large retailers and banks.
7. 'Payments to third persons' entail that a person who may, as a regular feature of his or her business, accept money or payment instructions from any other person for purposes of making payment on behalf of the other person to a third person to whom the payment is due.
8. An 'automated teller machine' is defined by the BIS as "an electromechanical device that permits authorised users, using machine-readable plastic cards, to withdraw cash from their accounts and/or access other services, such as balance enquiries, transfer of funds or acceptance of deposits".
9. 'Electronic funds transfer' refers to the computer-based systems used to perform financial transactions electronically.
10. The NPS Act is available on the NPSD website (see footnote 2).
11. Bankserv was founded in 1972 as the Automated Clearing Bureau (Pty) Limited (see http://www.bankserv.co.za).

owned by the South African clearing and settlement banks, and provides interbank electronic transaction switching services to the banking sector. The transactions in the retail payments environment include EFTs, cheques,[12] credit card[13] and debit card[14] transactions, and Internet and ATM transactions.

Payment instructions are sent to Bankserv through the various payment networks, for example, when a customer swipes a card at a retailer. It is at Bankserv that the actual clearing takes place. The clearing process includes sorting the instructions and determining the settlement obligations of the participants. These obligations are then submitted to the Bank for settlement.

Strate Limited

The PCH system operator responsible for the settlement of securities in South Africa is Strate Limited[15] (Strate). Equities and bonds are bought and sold through the stock exchange or in direct transactions between buyers and sellers. Strate then determines the interbank payment obligations arising in the equity and bond markets, which are then settled at the Bank.

Other payment clearing house system operators

Other PCH system operators active in South Africa are the card associations such as Visa and MasterCard.

2.1.4 Settlement network

In 1998, the Bank introduced a sophisticated, state-of-the-art real-time[16] gross settlement (RTGS) system called the 'South African Multiple Option Settlement' (SAMOS) system. The system, designed for high-value interbank transactions, was developed to bring domestic interbank settlement practices in line with international best practice and signalled the start of a new era for payment practices in South Africa.

SAMOS forms the core of the South African payment system and provides the facilities for banks to settle obligations on a real-time basis, finally and irrevocably.

A settlement system participant has an account at the Bank from which interbank settlement obligations are settled. The settlement system participants also need to lodge the prescribed collateral[17] at the Bank. These requirements are necessary to provide sufficient liquidity and to ensure the smooth functioning of the settlement system.

The SAMOS system settles on a pre-funded (credit-push[18]) basis. If a bank has insufficient funds available in its settlement account, the SAMOS system will automatically grant a loan to the bank against acceptable collateral. The amount of such a loan is limited to the collateral value of the collateral reserved and registered at the Bank for this purpose.

12. A cheque is a written instruction to a bank, made by its customer, to pay a third party.
13. A credit card is essentially a payment instrument through which purchases can be made utilising credit provided by the issuing bank.
14. A debit card provides the client with access to funds held by the customer at his or her bank.
15. Strate Ltd is the South African securities settlement operator, owned by the JSE Limited and South African-registered banks (see http://www.strate.co.za).
16. 'Real time' is the processing of instructions on an individual basis at the time they are received, rather than at some later time.
17. 'Collateral', as prescribed in the Banks Act, 1990 (Act 94 of 1990), is in the form of the liquid assets, which must be owned outright by the banks and must be unencumbered.
18. 'Credit push' takes place when the payer initiates (pushes) the transfer of funds from an account. The payer can only do this if the payer has funds available in the account. The credit-push methodology reduces risk in the payment system.

SAMOS is also used to settle the repurchase agreement[19] (repo) transactions that are conducted for monetary policy purposes. Banks can obtain central bank funds via repos. The movement of funds resulting from repo transactions is effected through the SAMOS system in real time. The real-time capability of the settlement system provides for the effective and rapid transmission of monetary policy signals through the financial system, and paves the way for more dynamic interbank and money markets.

Settlement participants include the Bank, a commercial bank or a branch of a foreign institution registered in terms of the Banks Act, 1990 (Act No. 94 of 1990), a mutual bank registered in terms of the Mutual Banks Act, 1993 (Act No. 124 of 1993), a co-operative bank registered in terms of the Co-operative Banks Act, 2007 (Act No. 40 of 2007) and a designated settlement system operator such as the Continuous Linked Settlement (CLS) system.[20]

In terms of the settlement value in the overall settlement system, the value of retail transactions, on average, amount to 8 per cent of transactions settled in SAMOS. High-value payments represent, on average, 92 per cent of the value of the transactions settled in SAMOS. However, the volumes of transactions in the clearing network by far exceed the volume of transactions in the high-value settlement system.

At the end of December 2008, 22 settlement participants were active in the SAMOS system. The total value settled through the SAMOS system in 2008 amounted to ZAR89,4 trillion and the total number of transactions for the same period was 2,7 million.

2.1.5 The Continuous Linked Settlement network

An important achievement for South Africa during December 2004 was the inclusion of the South African rand (ZAR) in the CLS Bank settlement system. CLS is a unique process that enables foreign-exchange transactions to be settled intraday on a payment-versus-payment[21] basis. It is a real-time, global settlement system that reduces the settlement risk caused by delays arising from settlement across time zones (by settling simultaneously in the same time zone in Central European Time).

The CLS network is the link between the domestic (i.e., SAMOS) and international payment system networks. Foreign-exchange transactions between the ZAR and other foreign currencies participating in the CLS network are settled in this system. At the end of December 2008, there were 17 currencies participating in the CLS settlement system.

The Standard Bank of South Africa Limited (Standard Bank) is the only South African registered bank that is a direct CLS member. Standard Bank, together with Absa Bank Limited provides liquidity for the ZAR settlement in CLS.

CLS nostro service providers include FirstRand Bank Limited, Nedbank Limited, Citibank N.A. and Calyon Corporate and Investment Bank Limited. Nostro service

19. A 'repurchase agreement' (repo) – here the refinancing of commercial banks' liquidity requirements through repo transactions forms part of the Bank's monetary policy strategy. Commercial banks can sell securities to the Bank on a conditional buy-back or so-called repo. The Bank makes only a limited amount of funds available to the commercial banks via the repo arrangement on a weekly basis. Banks wishing to make use of funding through this mechanism can participate in the daily tender, by bidding for a specified amount, at an interest rate that they are willing to pay, or at the fixed rate set by the Bank, when applicable.

20. The CLS system is a global clearing and settlement system for cross-border foreign-exchange transactions. The system is operated by CLS Bank International (see http://www.cls-group.com).

21. '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, only if a final transfer of the other currency or currencies takes place".

providers fund ZAR to facilitate CLS settlement. CLS members that executed foreign-exchange trades involving the ZAR will either pay or receive the ZAR involved in the transaction through a nostro service provider.

During 2008, the total value of transactions settled by the CLS participant banks in the SAMOS system amounted to approximately ZAR1,7 trillion.

2.2 Other role-players in the South African payments environment

2.2.1 Payments Association of South Africa

In terms of the NPS Act, the Bank may recognise a payment system management body, established with the object of organising, managing and regulating the participation of its members[22] in the payment system. The Payments Association of South Africa[23] (PASA) is recognised by the Bank in this regard. PASA manages the conduct of its members in relation to all matters affecting payment instructions and has the responsibility to

- provide a forum to its members for consideration of policy matters;
- act as communicator on behalf of its members;
- foster co-operation among its members;
- recommend criteria for approval to the bank in respect of clearing, PCH system operators and system operators;
- recommend criteria for participation of members in PASA; and
- support the Bank in its role as overseer of the payment system by ensuring compliance and imposing penalties against, and sanctions for, its members.

2.2.2 Bank Supervision Department of the South African Reserve Bank

The Bank Supervision Department[24] (BSD) of the Bank regulates deposit-taking in the financial system in terms of the Banks Act, 1990. Because payments are primarily made from funds on deposit, close co-operation is required between the BSD and the NPSD.

Risks arising from the payment system may impact negatively on individual banks, thereby creating a risk for one bank and thus prompting bank supervisors to take appropriate action. Likewise, payment system overseers are also concerned that the participating banks are sound and can meet their obligations in the payment system as they fall due.

22. Only the Bank, a commercial bank, mutual bank, co-operative bank, branch of a foreign institution and a designated clearing system participant may be members of a payment system management body.

23. PASA is the payment system management body in South Africa that is responsible for managing its members in the South African payment clearing system (see http://www.pasa.org.za).

24. For more information on the Bank Supervision Department (BSD) of the Bank, see http://www.reservebank.co.za>Bank Supervision.

3. Payment system risks

Robust payment and settlement arrangements are crucial, since default by one participant can easily have knock-on effects and, under certain circumstances, even cause the failure of other participants in the system.

The increased focus of central banks has been as a result of the significant increase in the volume and value of transactions, increased centralisation of payment systems and their technological complexity. Financial stability could be at risk should adequate risk management principles not be in place.

As financial systems have become increasingly more complex, stricter regulation and oversight of payment systems have been demanded. The reintegration of South Africa into the world economy in the early 1990s brought about an increased obligation to ensure that the domestic clearing and settlement systems and risk management procedures conformed to international best practice.

The introduction of SAMOS has been one of the main strategies for reducing risks in the South African payments environment and has 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.

3.1 Types of risks encountered in the payments environment

3.1.1 Settlement risk

'Settlement risk' is defined by the BIS as "the risk that a party will default on one or more settlement obligations to its counterparties or to a settlement agent". As such, settlement risk may comprise both credit and liquidity risks.

One of the best ways to mitigate settlement risk is to ensure a safe and efficient payment system based on internationally accepted standards and practices. To promote such standards, the BIS Committee on Payment and Settlement Systems issued the *Core Principles for Systemically Important Payment Systems*[25] (Core Principles) (see Box 1).

As the name reveals, the Core Principles deal with payment systems of systemic importance. Systemically important payment systems (SIPSs) are those that, in terms of the size or nature of the payments processed via them, represent a channel along which shocks or difficulties could be transmitted inside the financial system, or in which shocks that could threaten the stability of the entire financial system could even originate.

The Core Principles are general guidelines for the design and operation of payment systems, and are therefore adopted by most countries. The NPSD uses these principles as guidelines for the management and oversight of the payment system.

As mentioned before, SAMOS provides facilities for interbank payments to be settled on a real-time basis, that is, finally and irrevocably across the books of the Bank. Settlement risk is thus significantly reduced and principal risk (as described in point 3.1.6) is non-existent.

25. The *Core Principles for Systemically Important Payment Systems* can be viewed at http://www.bis.org/publ/cpss43.htm.

Box 1 The Core Principles and central bank responsibilities

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.
III. 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 fair and open access.
X. The system's governance arrangements should be effective, accountable and transparent.

* Systems should seek to exceed the minima included in these two Core Principles [IV and V].

Responsibilities of the central bank in applying the Core Principles

A. The central bank should define its payment system objectives clearly and should disclose publicly its role and major policies with respect to systemically important systems.
B. The central bank should ensure that the systems 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 co-operate with other central banks and with any other relevant domestic or foreign authorities.

3.1.2 Credit risk

Credit risk arises when a counterparty cannot meet an obligation for full value on a due date and thereafter because of insolvency.

3.1.3 Liquidity risk

Liquidity risk refers to the risk that a party in the system will have insufficient funds to meet financial obligations within the system, as and when expected, although it may be able to do so at some unspecified time in the future. This causes the party that did not receive its expected payment to finance the shortfall at short notice. Sometimes a counterparty may withhold payment even if it is not insolvent (causing the original party to scout around for funds), so liquidity risk can be present without being accompanied by credit risk.

3.1.4 Foreign-exchange settlement risk

This is the risk of loss in the settlement of foreign-exchange contracts that arises when a counterparty pays out one currency before receiving payment in another. At its core, settlement of a foreign-exchange trade requires the simultaneous payment of one currency and the receipt of another.

3.1.5 Systemic risk

This is the domino effect that results when one bank is unable to meet its obligations as they become due, resulting in other banks defaulting on their obligations as a consequence thereof.

Such a failure could cause widespread liquidity or credit problems and, as a result, threaten the stability of the system or of financial markets. This can have international ramifications, since a defaulting local bank can introduce the domino effect into the financial system of another country.

Systemic risk can be triggered by system failure or malfunction due to operational problems, fraud or other difficulties.

3.1.6 Principal risk

This is the risk that the principal of a payment will not be repaid. In the case of securities transactions, the seller risks losing his or her securities without receiving the principal, if the delivery of the securities and the payment do not take place simultaneously. This risk can be covered in a clearing and settlement system by the delivery-versus-payment[26] principle. Delivery is not made until payment is absolutely certain and vice versa.

3.1.7 Legal risk

Legal risk can arise if legal rights and obligations of the system participants have not been clearly laid down, or are not sufficiently understood by the parties to the legal contract.

Legal risk can also arise due to the non-existence of a legal framework for the payment system.

3.1.8 Operational risk

Operational risk is the risk of unexpected losses due to information system errors, human errors or error in judgement on the part of an operator. Operational risks arise through technical failure or through incorrect procedures that threaten the clearing and settlement process. Possible measures to reduce this risk, include adequate internal controls and tests of disaster recovery (DR) facilities.

Operational errors in payment and settlement systems can lead to various problems, such as:
- late or unsuccessful settlements due to operational difficulties;
- non-compliance with legal obligations and related costs;
- loss of a transaction or reputation; and
- increased financial risks in the system itself.

One of the requirements for participation in the SAMOS system is to have sufficient business continuity planning (BCP) and DR facilities in place. DR facilities will provide for the continuation of settlement operations by the participant, in the event that the primary infrastructure is not available or accessible. To cater for a physical threat to the primary site, it is recommended that the DR site be at a different location from the primary site.

26. ‘Delivery versus payment’ is defined by the BIS as “a link between a securities transfer system and a funds transfer system that ensures that delivery occurs if, and only if, payment occurs. The payment and delivery process thus takes place simultaneously”.

Redundancy arrangements address failure by any one of the components that form part of the participant interface infrastructure. All participants are required to have both these arrangements in place and to test them on a regular basis.

3.2 Risk-reduction strategies[27]

3.2.1 Limitation on item values

With the introduction of SAMOS, certain retail payment systems were used incorrectly for high-value payment and excessive exposures were created in various retail payment systems. These exposures posed a risk to the entire payment system.

This resulted in a limitation on item values for specific payment instruments in the retail payment system (e.g., cheques, EFT credits[28] and ZAPS[29] have an item limit of ZAR5 million, while EFT debit[30] transactions are limited to ZAR500 000).

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 settlement value.

3.2.2 Settlement on day of value

A further risk reduction measure taken by the Bank was to move to settlement on day of value and to discontinue the practice of settling PCH batches[31] as per the previous business day.

27. For more information on risk-reduction measures implemented by the NPSD, see http://www.reservebank.co.za>Payments & settlement systems>Position Papers>NPS 01/2000-Position Paper on Risk Reduction Measures for Payment Clearing Houses in the NPS.
28. EFT credits originate whenever a customer of a bank issues a payment instruction to his or her bank via various delivery channels to make an electronic payment to a third party, accepting that such payment will not be made immediately, but either later that day or on a future date.
29. The ZAPS system is a SWIFT-based payment stream used for electronic credit payment instructions (a payment stream is an environment created to clear and settle instructions emanating from a specific payment instrument).
30. EFT debit is a facility in terms of which somebody can collect money from another person's bank account, without that person having to do anything other than to give such person written or recorded voice approval to do so.
31. 'A batch' is defined by the BIS as "the transmission or processing of a group of payment orders (instructions) and/or securities transfer instructions as a set, at discrete intervals of time".

4. The South African institutional oversight framework

According to the BIS, "oversight is a central bank function that promotes the objectives of safety and efficiency in a country's payment and settlement infrastructure by monitoring existing and planned arrangements, assessing them against the objectives, and inducing any necessary changes".

The South African Reserve Bank Act, 1989 (Act No. 90 of 1989)[32] (the SARB Act) was amended[33] to elucidate the role and responsibility of the Bank in the domestic payment system. Following on from this amendment, the Bank was empowered 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".

The Bank had thus 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 NPSD.

The NPSD, therefore, supports the mission of the Bank by ensuring the overall effectiveness and integrity of the national payment system.

The Bank, in conjunction with the banking industry, drafted legislation for the participants and users of the NPS, and in October 1998 the NPS Act was promulgated. The purpose of the NPS Act was 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".

The Bank, and more specifically the NPSD, oversees the safety and efficiency of the payment system in terms of the NPS Act.

4.1 Directives

The NPS Act enables the NPSD to issue directives that have legal standing, thereby enhancing the general oversight abilities of the NPSD. Directives provide for a more detailed interpretation of the NPS Act or prohibiting of certain behaviour. Depending on the nature and/or the impact of payment system issues, and whether or not intervention is required, directives may be issued to address such issues.

4.2 Position papers

From time to time the NPSD also issues position papers. These papers are guidelines that address practices that need to be aligned with sound payment system arrangements and practices. These documents normally contain approaches, procedures and policy matters that are applicable at a particular time.

32. See http://www.reservebank.co.za>About us>Regulations>South African Reserve Bank Act 90 of 1989.
33. As per section 10(c)(i) of the SARB Act.

5. The South African oversight approach

Central banks exercise their responsibility for national payment and settlement systems by means of the oversight function.

Generally, oversight of payment systems consists of SIPSs (high-value or wholesale payment systems) as well as non-SIPSs (retail payment systems).

The NPSD formally established its oversight function in 2001. The main focus area of the oversight division is to reduce payment system risks. Since 2001 the South African oversight model has been aligned, developed and refined to cater for the domestic payment system, and at the same time it adheres to international best practice.

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, such as a debit or credit card) to the beneficiary receiving the funds in terms of the payment.

The scope of the South African oversight function includes banks and non-bank participants (non-bank oversight is discussed in section 5.3).

The NPSD also carefully monitors developments in the area of payment products, notably new developments such as mobile banking and electronic money.[34] Oversight thus keeps track of both traditional providers of payment products in the South African market and newcomers.

Through daily or continuous monitoring, daily performance statistics, risk management reports or documents and specific compliance requirements are monitored and analysed for exceptions or problems.

Occasionally, topics or issues are identified through monitoring, that are selected for further review, research, analysis, specific investigations and information gathering by the oversight team. This process allows the team to explore new or topical issues and keep abreast of them.

Further analysis is occasionally done on industry practices and the evaluation of these practices across a population of peer institutions and/or across the payment industry. These conclusions could be compared to, or evaluated with, international trends.

The oversight approach chosen by the Bank was that of macro and micro oversight.

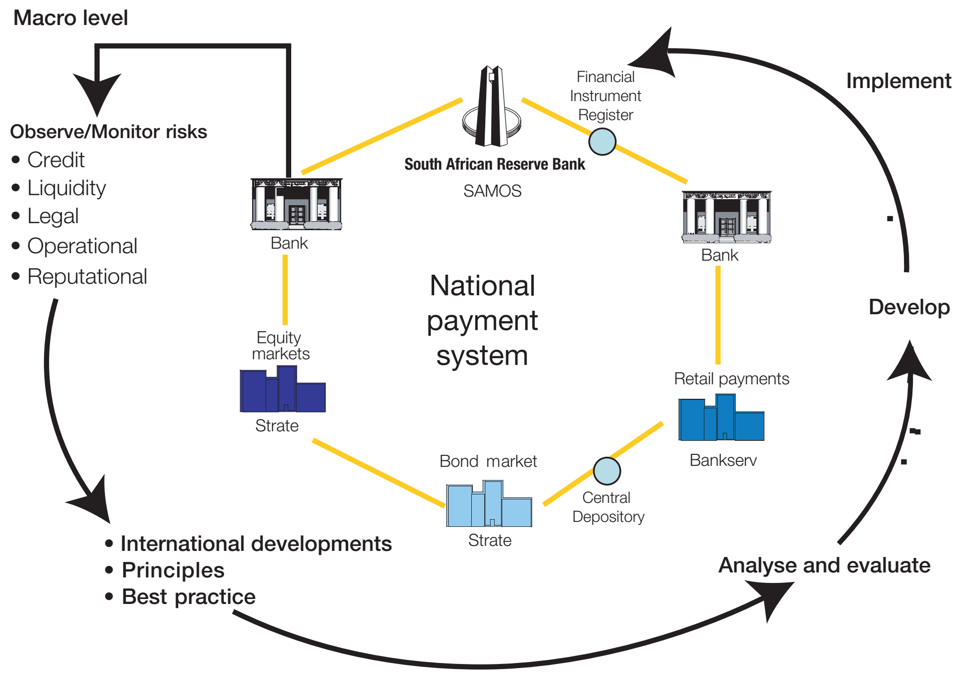
5.1 Macro oversight

Macro oversight (Figure 2) deals with the assessment or evaluation of the payment system on a higher level against international practices principles and guidelines, followed by corrective steps to reduce the said payment risks.

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

34. Refer to http://www.reservebank.co.za>Payments & settlement systems>Position Papers>NPS 01/2009-Position Paper on Electronic Money. As per the aforementioned position paper, 'electronic money' is defined as "monetary value represented by a claim on the issuer. This money is stored electronically and issued on receipt of funds, is generally accepted as a means of payment by persons other than the issuer and is redeemable for physical cash or a deposit into a bank account on demand."

Figure 2 Macro oversight



5.2 Micro oversight

The oversight of payment systems is primarily aimed at the promotion of a safe and efficient national payment system, and not individual participants. However, oversight of the payment system may at times involve individual oversight.

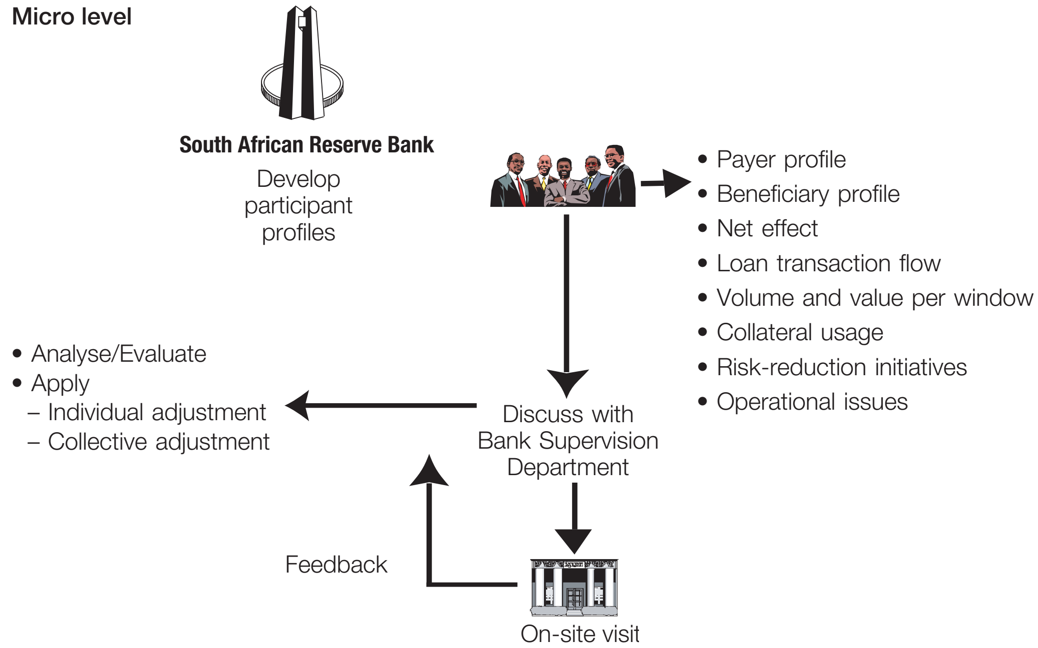
Micro oversight (Figure 3) deals with the evaluation or assessment of individual institutions and was developed after the liquidity crisis that South African banks experienced in 2002. This resulted in profiles being created for all the individual participants in SAMOS, wherein these banks are evaluated in terms of their participation in the settlement system. Payment system profiles are thus monitored to provide an early warning mechanism for a settlement failure.

5.2.1 On-site visits

These visits are also mechanisms used in the micro oversight process. They focus on topics and issues identified through the strategic processes and/or continuous monitoring process that either present high risk or warrant validation. These on-site visits are also utilised to analyse and verify compliance with the NPS directives, position papers and legislation and/or policy views. Following such a visit, an oversight report is drafted, detailing certain implications or recommendations for an institution to rectify or enhance certain critical functions or areas.

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

Figure 3 Micro oversight



5.3 Non-bank oversight

In certain circumstances the provision of services relating to payment instructions by persons other than banks adds value to the users of the NPS in a broader market. The NPSD recognises this fact, provided that risk emanating from such services in the NPS is controlled. During 2007, system operators (SOs) and third-party payment service providers (PSPs) were formalised into a new category of participants in the NPS.

Prior to 2007, SOs and PSPs had operated largely without being regulated. Owing to the increase in the volume and value of payment instructions being processed by such persons, the NPSD found it essential to set minimum criteria for participation in this environment.

In September 2007 two directives[35] were issued to lay down minimum criteria that should be applied by such non-bank participants.

By the end of 2008, 40 SOs and 22 PSPs had registered with PASA. These non-bank participants form an important link between the payment and customer networks, and enhance the efficiency and footprint of the payment system.

35. Directive No. 1 of 2007, Directive for the conduct within the National Payment System in respect of payments to third persons, and Directive No. 2 of 2007. Directive for conduct within the National Payment System in respect of system operators. Both directives are available online at http://www.reservebank.co.za>Payments & settlement systems>Directives for conduct within the NPS.

Oversight visits to SOs and PSPs commenced in 2008. The main purpose of these oversight visits was to
- gather information and understand their role in the processing of payments; and
- understand their business strategies and models.

5.3.1 System operators

In term of the NPS Act, an 'SO' is defined as "a person authorised in terms of section 4(2)(c) to provide services to any two or more persons in respect of payment instructions". In order for such a person to be authorised as an SO, the person would have to meet the criteria as recommended by the payment system management body concerned.

Several banks, many of the largest retailers and corporates employ the services of privately owned SOs to 'concentrate' and switch their payment transactions into the clearing system. The aggregated volume and value of the payment instructions being processed by such SOs in the various payment systems are significant. Should such an SOs system fail due to a lack of operational capability (i.e., DR and BCP) it could introduce risk, including reputational risk to the NPS.

5.3.2 Third-party payment service providers

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 purposes of making payment on behalf of that other person, to a third person, to whom that payment is due". Payments due to third persons are undertaken in the following ways:

- Money or the proceeds of payment instructions are accepted by a person (a beneficiary service provider), as a regular feature of that person's business, from multiple payers on behalf of a beneficiary. A typical example is the acceptance of money or proceeds of payment instructions by a retailer or other outlets for payment of utility bills; or
- Money or the proceeds of payment instructions are accepted by a person (a payer service provider), as a regular feature of that person's business, from a payer to make payment on behalf of that payer to multiple beneficiaries. A typical example is the payment of salaries on behalf of employers to employees.

5.4 Continuous Linked Settlement oversight

The central banks participating in the CLS system utilise the Oversight Committee for carrying out co-operative oversight of CLS Bank. The Federal Reserve Bank of New York is the lead regulator for CLS Bank. Under their chairmanship, a co-operative central bank oversight arrangement or oversight protocol has been developed. The Bank actively participates in this oversight mechanism.

Abbreviations

ATM	automated teller machine
BCP	business continuity planning
BIS	Bank for International Settlements
BSD	Bank Supervision Department
CLS	Continuous Linked Settlement
DR	disaster recovery
EFT	electronic funds transfer
NPS	national payment system
NPS Act	National Payment System Act, 1998 (Act No. 78 of 1998)
NPSD	National Payment System Department
PASA	The Payments Association of South Africa
PCH	payment clearing house
PSP	third-party payment service provider
repo	repurchase agreement
RTGS	real-time gross settlement
SAMOS	South African Multiple Option Settlement
SARB Act	South African Reserve Bank Act, 1989 (Act No. 90 of 1989)
SIPS	systemically important payment system
SO	system operator
Standard Bank	The Standard Bank of South Africa Limited
Strate	Strate Limited
ZAR	South African rand

Glossary

the Bank	South African Reserve Bank
Core Principles	*Core Principles for Systemically Important Payment Systems*