

**THE PAYMENT SYSTEM
IN SOUTH AFRICA**

Table of Contents

OVERVIEW OF THE NATIONAL PAYMENT SYSTEM IN SOUTH AFRICA	151
1. INSTITUTIONAL ASPECTS	151
1.1 General legal aspects	151
1.2 The role of financial intermediaries that provide payment services	151
1.3 The role of the central bank	152
1.4 The role of other private sector and public sector bodies	152
<i>1.4.1 Council of South African Bankers</i>	152
<i>1.4.2 BANKSERV</i>	152
<i>1.4.3 Payment Association of South Africa</i>	153
<i>1.4.4 S.W.I.F.T. users of South Africa</i>	153
<i>1.4.5 Treasury Operators Forum</i>	153
<i>1.4.6 Association of Bank Card Issuers</i>	153
2. SUMMARY INFORMATION ON PAYMENT MEDIA USED BY NON-BANKS	153
2.1 Cash payments	153
2.2 Non-cash payments	154
<i>2.2.1 Cheque payments</i>	154
<i>2.2.2 Cards</i>	154
<i>2.2.3 Electronic instruments</i>	155
3. PRESENT INTERBANK EXCHANGE AND SETTLEMENT CIRCUITS	156
3.1 General overview	156
3.2 Structure, operation and administration of large-value systems	156
<i>3.2.1 Major legislation, regulation and policies</i>	156
<i>3.2.2 Participants in the system</i>	157
<i>3.2.3 Types of transactions handled</i>	157
<i>3.2.4 Operation of the transfer system</i>	157
<i>3.2.5 Settlement procedures</i>	157
<i>3.2.6 Backup solutions</i>	157
<i>3.2.7 Pricing policies</i>	158
<i>3.2.8 Credit and liquidity risk</i>	158

4.	SPECIAL USE OF INTERBANK TRANSFER SYSTEMS FOR INTERNATIONAL AND DOMESTIC FINANCIAL TRANSACTIONS	158
4.1	Overview	158
4.2	Exchange and settlement systems for international transactions	158
4.2.1	<i>Retail international transactions</i>	<i>158</i>
4.3	Exchange and settlement systems for securities transactions	159
4.3.1	<i>The Johannesburg Stock Exchange</i>	<i>159</i>
4.3.2	<i>The South African Futures Exchange</i>	<i>159</i>
4.3.3	<i>The Bond Exchange of South Africa</i>	<i>159</i>
5.	THE ROLE OF THE CENTRAL BANK IN INTERBANK SETTLEMENT SYSTEMS	159
5.1	Provision of settlement facilities	160
5.2	Monetary policy and the payment system	160
6.	RECENT DEVELOPMENTS IN THE NATIONAL PAYMENT SYSTEM	160
6.1	The establishment of National Payment System management structures	160
6.2	The South African Multiple Option Settlement system	161
6.3	Electronic cash developments	161
6.4	Southern African Development Community payment system initiatives	161
6.5	Legal framework for the new National Payment System	162
6.6	Securities settlement in the financial markets	162
6.7	Notes and coin management project	162
6.8	New accommodation arrangements for monetary policy purposes	162
7.	INFRASTRUCTURE	162
	Tables	164
	Appendices	167

OVERVIEW OF THE NATIONAL PAYMENT SYSTEM IN SOUTH AFRICA

The South African national payment system is presently undergoing various fundamental reforms. In November 1995 a comprehensive new national payment system (NPS) strategy, which was a collaborative effort between the South African Reserve Bank and the banking industry, was published in the NPS Strategy and Framework document. The strategy encompasses the vision, fundamental principles and critical success factors for the reform of the domestic national payment system in the Republic of South Africa. The objectives of the strategy cover a broad spectrum, from placing the South African payment system on a par with international standards, to developing a sound and robust payment system, serving the requirements of domestic and international business and providing access to secure payment mechanisms for all South Africans.

At the core of the new NPS lies the South African Multiple Option Settlement (SAMOS) system, implemented on 9th March 1998. This new electronic interbank funds transfer system provides for immediate finality and irrevocability of settlement through the real-time gross settlement option, the so-called real-time line (RTL) (also see 6.2). The new settlement system will also provide for a delayed net settlement option, which will, by means of collateralisation, ensure guaranteed settlement.

Major new developments are taking place as a result of the new national payment system reforms (see section 6). This chapter will, however, focus mainly on the status of the national payment system as at the end of 1996.

1. INSTITUTIONAL ASPECTS

1.1 General legal aspects

The South African Reserve Bank Act, Act No. 90 of 1989 provides in general terms that the central bank may organise and participate in a clearing system. The Reserve Bank does not presently have any specific statutory powers to supervise the national payment system.

The payment system, however, is in general terms regulated by commercial law while the banking industry is subject to various laws, regulations and related legislation such as:

- the Banks Act, Act No. 94 of 1990;
- the Mutual Banks Act, Act No. 124 of 1993;
- the Bills of Exchange Act, Act No. 34 of 1964;
- the Companies Act, Act No. 61 of 1973;
- the Insolvency Act, Act No. 24 of 1936.

From a payment system viewpoint the Bills of Exchange Act deals mainly with the usage of paper-based cheques and bills of exchange. No legislative framework or relevant case law for the handling of electronic payments exist.

1.2 The role of financial intermediaries that provide payment services

There are mainly two categories of registered banking institutions, namely banks and mutual banks. An institution is registered as a bank or as a branch of a foreign institution under the Banks Act or as a mutual bank under the Mutual Banks Act and is therefore subject to the supervision of the South African banking supervisory authority. A bank is also required to be registered as a public company in terms of the Companies Act whereby equity is provided by the bank's

shareholders. A mutual bank is not registered in terms of the Companies Act, but certain provisions of the Companies Act relating to solvency and liquidation are, however, applicable to mutual banks.

The Postbank was exempted from the provisions of the Banks Act by Government Notice No. 334, as published in *Government Gazette* No. 13744 dated 24th January 1992 and is also not registered under the Companies Act. The Minister of Finance, however, retains the discretion to withdraw the exemption from the provisions of the Banks Act.

It is mainly registered banking institutions that provide payment services to the public. This wide range of services include money transmission facilities via cheques, cash, credit and debit cards and home banking services. Banks also issue credit cards which are affiliated to either the VISA or MasterCard schemes.

Certain non-bank institutions also provide payment services to their customers. American Express and Diners Club issue travel cards in South Africa while a number of private sector retailers provide private-label credit cards. The Post Office provides mail orders and telegram services in respect of the transfer of money.

1.3 The role of the central bank

The main responsibility of the Reserve Bank is to formulate and implement monetary policy to attain its mission. The Bank's mission is to protect the value of the currency. The Reserve Bank has the statutory role of issuing notes and coin and holds the loan, settlement and cash reserve accounts of registered banks. The Reserve Bank also provides banking and payment services to the government as well as to the neighbouring countries' central banks (see section 5 for a more detailed discussion on the role of the central bank).

1.4 The role of other private-sector and public-sector bodies

1.4.1 Council of South African Bankers

The Council of South African Bankers (COSAB) is the *de facto* collective body, representing the interests of the banking industry in South Africa as a whole.

1.4.2 BANKSERV

BANKSERV is the largest operator (providing infrastructural components) in the South African payment and clearing system. Services provided by BANKSERV include the Automated Clearing Bureau (ACB) for the processing of magnetic ink character recognition (MICR) cheques, cheques processed through code-line clearing (CLC), an electronic funds-transfer (EFT) service, the switching of electronic payments between banks (SASWITCH) and the clearing of South African Payment System (ZAPS) and South African Netting System (ZANS) payments through S.W.I.F.T. (Society for Worldwide Interbank Financial Telecommunication). The MICR service is an automated cheque-clearing system, whereby the ACB electronically proves, sorts and re-lists cheques cleared by clearing banks on sophisticated computerised equipment. The CLC service is an automated debit-clearing system for cheques. Participating banks send information of deposited cheques electronically to the ACB, which processes the information in order to provide inward and outward clearance figures and data for banks.

1.4.3 Payment Association of South Africa

The Payment Association of South Africa (PASA) was established in November 1996 to act as the governing umbrella body of all Payment Stream Associations (PSAs) (also see 6.1). A PSA is an association of banks that provide payment instruments in a specific payment stream to their customers. The objectives of PASA are to manage, control and govern all matters effecting interbank payments, payment clearing and netting of interbank obligations within the payment system. Membership is limited to South African registered banks, branches of foreign banks and mutual banks. The council of PASA consists of eight members, five representing the banks with the highest product of throughput and annual total value in the payment clearing system, two members representing all other members and the Reserve Bank. The Reserve Bank is a non-voting member. Any member of PASA may appeal to the Reserve Bank against any decision of the Council if the member is of the opinion that such a decision is contrary to the integrity of the payment system or the interests of PASA members as a whole.

1.4.4 S.W.I.F.T. Users of South Africa

The mandate of the S.W.I.F.T. Users of South Africa (SUSA) is to represent the interests of banks and participants who belong to the S.W.I.F.T. network.

1.4.5 Treasury Operators Forum

The mandate of the Treasury Operators Forum (TOF) is to discuss treasury and international banking issues which are of mutual concern and to set market practices where appropriate. The executive committee consists of the four major banks, the Reserve Bank (as a treasury operator) and two representatives from the other banks. The members of this body are responsible for the largest portion of large-value payments.

1.4.6 Association of Bank Card Issuers

The mandate of the Association of Bank Card Issuers (ABCI) is to discuss technical and issues of mutual concern in the bank card industry, specifically of bank cards affiliated to VISA and MasterCard. They also set industry rules, do research and involve themselves in legal matters pertaining to the bank card industry.

2. SUMMARY INFORMATION ON PAYMENT MEDIA USED BY NON-BANKS

2.1 Cash payments

Since 1963 notes have been printed locally by the South African Bank Note Company (Pty) Ltd., a wholly owned subsidiary of the Reserve Bank. The sole right to mint, issue and destroy coins was transferred to the Reserve Bank by the Act No. 49 of 1989. The South African Mint Company (Pty) Ltd. became a wholly owned subsidiary of the Reserve Bank.

Five note denominations are being printed and nine coin denominations are being minted, namely:

Notes	Coin
R10	1 cent
R20	2 cent
R50	5 cent
R100	10 cent
R200	20 cent
	50 cent
	R1
	R2
	R5

At the end of 1996 the value of notes and coin in circulation in the hands of the public amounted to approximately R16 billion. From the end of 1990 onwards this amount constitutes approximately 5% of the broadly-defined money supply (M3). M3 consists of notes and coin in circulation plus cheque and transmission deposits plus other demand deposits plus other short and medium-term deposits plus long-term deposits.

2.2 Non-cash payments

2.2.1 Cheque payments

The banked community in South African is primarily cheque oriented in payment behaviour (see next paragraph). The government also uses cheques for various payments usually associated with creditors, pensions, salaries and wages. Most South African cheques are MICR encoded which are read by high-speed MICR reader machines (see 1.4.2).

Payments by cheque accounted for approximately 80% by value and approximately 45% by volume of cashless payments by the end of 1996. These ACB figures exclude on-us transactions for some banks, which consist of cheques drawn on the same bank for cash and inter-branch cheques. A formal study by the Reserve Bank in 1994, however, showed that the number of cheque transactions remained virtually unchanged during the early 1990s probably due to the growth in card-based and magnetic-tape transactions. Some banks also provide a cheque guarantee card, but it is only issued to clients who are in the higher-income categories.

2.2.2 Cards

There has been a major growth in electronic funds transfer point-of-sale (EFTPOS) terminals, which provide a sophisticated network for electronic-card presentation to clearing banks. In excess of 90% of credit-card payments have been converted to EFTPOS payments. These networks are mainly owned by banks. Card-based payments can be effected by means of credit as well as debit cards. Withdrawals and deposits can also be made at automated teller machines (ATMs) of the major retail banks. When withdrawals are made and the drawer transacts at a different bank than his/her own bank, these ATM transactions are switched through SASWITCH (see 1.4.2).

Preliminary estimates show that there are approximately 20 million cards in circulation in South Africa of which 3 million are credit cards, 7 million are private label cards and 10 million account-linked (debit) cards.

Credit cards. Some of the banks issue credit cards which are affiliated to either VISA or MasterCard. Credit cards are issued with a pre-set credit limit. The card account is normally separate from the bank account. Real-time credit card authorisations are also conducted via SASWITCH (see 1.4.2). Card-holders may choose to settle the total amount of the purchase with the bank before the expiration of 30 days or pay off a portion (normally a minimum of 10%). Interest is paid on the amount if it is not settled after 30 days. A budget facility is also available on certain credit-card

schemes with periods to pay off instalments normally ranging from 6-48 months. The interest charges on these credit-card facilities are normally higher retail rates

The volume of credit-card transactions processed through SASWITCH amounted to 14.5 million in December 1996 which is 16% higher than December 1995 while the value of credit card transactions processed, which amounted to R2.6 billion in December 1996, is 26% higher than the corresponding period in the previous year.

Debit cards. Cash dispensers and ATMs are distributed throughout South Africa and are used extensively to withdraw cash and to effect numerous banking transactions via debit cards - for example, to transfer funds between a customer's accounts and to deposit funds. Approximately 5600 ATMs existed at the end of 1996. Real-time debit card payments are also facilitated. Debit card payments for fuel sales are being introduced via point-of-sale devices at petrol stations.

2.2.3 *Electronic instruments*

Direct debits and credits. Electronic funds transfer (EFT) direct debits are usually used for payments of a regular nature, for example, insurance deductions, tax refunds, telephone, electricity, water and hire-purchase payments. Direct credit transfers are used for a wide range of applications, from the transfer of low-value amounts for individuals, low-value retail payments and salary and pension payments. Banks, the government and large corporations normally utilise this form of payment. The volume of EFT transactions processed through BANKSERV amounted to 20.9 million in December 1996 which is 15% higher than December 1995, while the value of EFT transactions processed, which amounted to R94.3 billion in December 1996, is 44% higher than the corresponding period in the previous year.

The South African payment system and South African netting system. The South African Payment System (ZAPS) is used to effect large-value rand-denominated interbank transactions in the settlement accounts of banks at the Reserve Bank. Although the ZAPS system was originally destined to effect rand-denominated interbank settlement as a result of foreign exchange transactions, the system is presently also utilised for non-forex large-value interbank transactions. The rand-denominated settlement figures are cleared through the ACB and included in the net settlement report that is forwarded to the Reserve Bank (also see 3.2.4). R496 billion of payments were cleared through the ZAPS system for the month of December 1996, representing an annual growth of 69%. The message carrier being utilised is S.W.I.F.T. The South African Netting System (ZANS) is being utilised for the net settlement of the corresponding US dollar payment leg.

Other cashless payment instruments. The Post Office provides mail orders for low-value payments, which are especially convenient for the unbanked segment of the community. Payment of Post Office bills can also be transacted through the utilisation of point-of-sale (POS) devices. Some banks introduced 24-hour telephone home-banking services. This facility is normally used for the paying of low-value bills and the transmission of funds between a client's in-house accounts at a bank. Many retailers also offer private label card schemes. These cards can only be utilised in-house with a certain revolving credit limit, while interest could be charged after a certain period if the original amount is not settled. This period for monthly instalments could be ranging from 3-12 months.

3. PRESENT INTERBANK EXCHANGE AND SETTLEMENT CIRCUITS

3.1 General overview

The bulk of interbank clearing and settlements are effected through a multilateral netting system at the ACB (see 1.4.2). The Reserve Bank ensures a sound and secure payment system by providing for the final interbank settlement of clearing obligations over the current accounts of banks.

3.2 Structure, operation and administration of large-value systems

Various interbank operating companies were set up as joint ventures in order to facilitate the smooth functioning of the present interbank clearing and settlement operations. The most important of these operators is the ACB. Settlement obligations are based on the multilateral net of all settlement exposures and the ACB forwards the settlement instructions for each individual payment stream to the Reserve Bank for final end-of-day settlement on the following day.

Final end-of-day settlement takes place at 9 a.m. the following day under the previous day's date by entering the settlement obligations, received from the ACB, into the settlement accounts of the banks. The Reserve Bank thus provides same-day value to banks. In outlying areas, banks mainly use clearance vouchers to make payments to each other. These clearance vouchers are then forwarded to regional ACB processing centres and are then cleared by the same process as customer cheques.

The ACB has four main branches, namely in Johannesburg (which is the main clearing centre), Durban, Cape Town and Port Elizabeth. In the larger centres not serviced by the ACB, there are what is called "mini-ACB centres", which electronically send their settlement figures to the main ACB centres, for inclusion in the settlement. Most clearing takes place in the Johannesburg, Cape Town, Durban and Port Elizabeth areas, which account for approximately 80% of the clearing process. The settlement figures of all branches of the ACB are transferred to the Johannesburg branch, where they are incorporated into the total settlement report that is sent to the Reserve Bank at the end of the clearing process.

In addition, there are various other manual clearing houses in the country areas which operate on a daily basis. Settlement in most of these clearing houses, which consist of two or more banks, is performed on a bi-monthly basis, or when the bilateral settlement position of one of the parties reaches a predetermined level.

All clearing houses subscribe to Clearing House rules, drawn up, on behalf of PASA (see 1.4.3) by the South African Banks Technical Committee.

3.2.1 Major legislation, regulation and policies

There is no specific legislative framework governing the operations of the payment system except for cheques or other bills of exchange subject to the provisions of the Bills of Exchange Act (see 1.1). The operations of clearing are subject to rules and regulations set by the members through the South African Banks Technical Committee. Technical and procedural clearing rules as well as set standards are contained in various manuals.

In South Africa, the cheque format has to comply with the standards laid down by the Cheque Standards Committee, which adopted the British Association for Payment Clearing Services (APACS) paper specification (known as CBS1) as the cheque-paper standard for South Africa. Other standards relate to the position in which the bank code, payee, payer, amount and other information, normally appearing on the face of the cheques, should be printed. These specifications are laid down in the Cheque and MICR Specification Document issued by the Cheque Standards Committee, under the auspices of the South African Banks Technical Committee.

3.2.2 Participants in the system

Presently, only banks designated as “direct or indirect clearing banks” are allowed to participate in the clearing systems under various conditions specified in the entry criteria. Non-clearing banks participate indirectly by means of sponsorship agreements with other clearing banks. Participation in the clearing system is regulated by PASA. A direct clearer must comply with various specified entry criteria. Foreign branches are not permitted to be direct clearers. A sponsored clearer participates with the specific guarantee of a direct clearer.

Sponsorship arrangements were eliminated with effect from 9th March 1998. Should a bank wish to participate as a sponsored bank, it must negotiate a corporate-customer relationship with a direct clearing bank. All banks will be eligible to hold a settlement account with the Reserve Bank and will then settle in its own name.

3.2.3 Types of transactions handled

The types of transaction are described under 2.2.

3.2.4 Operation of the transfer system

Clearing takes place throughout the day at the clearing centres, but settlement is only effected by the Reserve Bank at 9 a.m. on the following day, backdated to the previous day. The net settlement results are manually entered via the Centralised Banking System (CBS), which posts the settlement obligations to the relevant banks’ current accounts in the books of the Reserve Bank.

The present processing of the payment instruments on a daily basis involves settling net claims between the banks themselves, as well as the banks on the one hand and the Reserve Bank on the other hand. The settlement of resultant debit and credit positions of the banks themselves and the Reserve Bank will result in that several of the banks with accounts at the Reserve Bank will become overdrawn. Normally no excess cash is held on these settlement accounts of the banks due to the lack of interest payments on them. Banks who are in debit will seek normal automatic and unconditional overnight accommodation under the marginal lending facility from the Reserve Bank (also see 5.2).

3.2.5 Settlement procedures

The Reserve Bank receives the settlement report as a balanced batch from the ACB. The ACB, which acts as agent for the banks and the Reserve Bank, is indemnified against any errors. After this process has taken place the next morning the settlement is backdated and the Reserve Bank provides guaranteed irrevocable same-day settlement (also see 3.2.4). No specific formalised procedures are in place in case of participants’ default and cases are treated on a discretionary basis. The practice of net settlement is not supported by any current payment system legislation and, in the event of a default of a participant, unwinding could prove to be a complicated, if not impossible, procedure.

3.2.6 Backup solutions

The ACB has certain contingency arrangements in place should it not be able to process transaction data. Various backup sites were established to continue with the payment processing.

3.2.7 Pricing policies

Processing charges are in place for services provided by BANKSERV (see 1.4.2). The Reserve Bank charges no fees for its processing of settlement entries over the current accounts of the banks.

3.2.8 Credit and liquidity risk

Banks who are in a debit position when settlement positions become known the next day will seek normal overnight accommodation under the marginal lending facility from the Reserve Bank under the proviso that acceptable securities can be provided by that bank (also see 5.2). The acceptable securities are pledged to the Reserve Bank and providing the central bank with first right of ownership in case of liquidation. Should a clearing bank be unable to fund its overall debit position or be able to provide security, the credit and liquidity risk is at present borne by the Reserve Bank. No loss-sharing agreements or any specific payment risk reduction measures are presently in place.

4. SPECIAL USE OF INTERBANK TRANSFER SYSTEMS FOR INTERNATIONAL AND DOMESTIC FINANCIAL TRANSACTIONS

4.1 Overview

This section focuses on high-value and retail foreign exchange payments as well as present payment practices in the securities markets.

4.2 Exchange and settlement systems for international transactions

The foreign exchange market, confined to banks, is settled on a multilateral net basis (for rand and dollars) at end-of-day at the Reserve Bank. The Reserve Bank settles the rand leg of the payment transaction by passing accounting entries on the settlement accounts of banks. In order to settle the dollar leg, the Reserve Bank sends S.W.I.F.T. messages to the relevant foreign counterparties for dollar transactions on behalf of banks (see 2.2.3, paragraph 3).

International foreign exchange transfers are mainly effected through cross-border correspondent banking relationships. The message transmission by which payment instructions are conveyed is predominately through S.W.I.F.T. Banks usually use their own correspondent bankers to pay foreign counterparties. In most cases, banks make use of correspondent banking agreements to effect such payments. These agreements allow a bank to hold a foreign currency denominated account with an overseas bank. In order to effect payment, a bank will instruct its correspondent bank to effect payment to its foreign counterparty, in the foreign currency, by debiting its account and transferring the funds to the account of the foreign counterparty.

South Africa is also a member of the Common Monetary Area (CMA), which consists of South Africa, Namibia, Lesotho and Swaziland. The practical arrangements include the acceptance of South African currency as legal tender in these member countries.

4.2.1 Retail international transactions

There are a number of ways by which retail cross-border transactions can be effected. Travellers' cheques are available in a number of major currencies. VISA and MasterCard are part of international networks for the usage of credit card transactions. American Express and Diners Club provide international debit card transaction facilities.

4.3 Exchange and settlement systems for securities transactions

The following section focuses on the settlement practices as presently existing in the formalised financial market exchanges. Major new developments are taking place in respect of securities settlement practices (see section 6.6).

4.3.1 The Johannesburg Stock Exchange

The Johannesburg Stock Exchange (JSE) is the formalised exchange for equities and is governed under the Stock Exchange Control Act, 1985 by the Financial Services Board (FSB) as well as rules formulated by the members of the JSE. Transactions on the JSE are settled on an account basis every settlement day (Tuesday), by cheques on a netted basis. The cheques form part of the normal MICR settlement of the ACB the next morning at the Reserve Bank (see 3.2.4).

4.3.2 The South African Futures Exchange

The South African Futures Exchange (SAFEX) is the formalised exchange for futures and options contracts and is governed under the Financial Markets Control Act, 1989 by the FSB as well as rules formulated by the members of SAFEX. Transactions on SAFEX are settled by cheques or via electronic transfers through S.W.I.F.T. and form part of the normal net settlement report from the ACB (see 3.2.4).

4.3.3 The Bond Exchange of South Africa

The Bond Exchange of South Africa (BESA) is the exchange for debt instruments (gilts and semi-gilts). BESA is governed under the Financial Markets Control Act, 1989 by the FSB, as well as rules formulated by the members of BESA. Transactions on BESA are settled through an electronic settlement system, whereby the major clearing banks transfer funds amongst one another on a net basis on settlement day, at the Reserve Bank.

5. THE ROLE OF THE CENTRAL BANK IN INTERBANK SETTLEMENT SYSTEMS

Presently, the Reserve Bank does not have any specific statutory powers to regulate the national payment system. The South African Reserve Bank Act of 1989 provides in general terms that the central bank may organise and participate in a clearing system. The Reserve Bank, however, plays a prominent role in the following:

- the execution of monetary policy, which includes *inter alia* the conducting of repurchase transactions and open-market transactions with banking institutions (also acting on behalf of clients) to manage the liquidity in the money market (also see 6.8);
- the guiding of the evolution of the payment system, focusing primarily on the overall soundness and effectiveness of the national payment system. The Reserve Bank participates as a member as well as overseer of the payment system;
- the development of financial markets to provide stability for the execution of monetary policy. This presupposes reliable and efficient clearing and settlement systems. The Reserve Bank, in its role as banker to banks, also has a direct interest in the stability of the payment system and the banking system insofar as it acts as lender-of-last resort. A deputy governor of the Reserve Bank is the chairman of the Policy Board for Financial

Services and Regulation. The objective of the Board is to advise the Minister of Finance on policy matters relating to financial services and regulation;

- the issuing of notes and coin in South Africa;
- the holding of the loan, settlement and cash reserve accounts of registered banks; and
- the provision of banking and payment services to the government as well as to the neighbouring countries' central banks.

5.1 Provision of settlement facilities

The present settlement facilities are owned and provided by the Reserve Bank. The Reserve Bank is the settlement bank in the interbank market and prior to 9th March 1998, settled interbank obligations by making transfers across the current accounts of banks (see 3.2.4 and 3.2.5). The Reserve Bank provided overnight loans to banks against acceptable collateral. The banks were not charged for the usage of these settlement facilities. Banks will be charged for the settlement instructions that they send to the Reserve Bank under the new SAMOS system.

5.2 Monetary policy and the payment system

The Bank rate was set by the Reserve Bank in line with the monetary policy objectives. The Bank rate influences the money supply (M3) and credit extension to the private sector, and eventually the rate of general price inflation to attain the mission of the Reserve Bank. The mission of the Reserve Bank is to protect the value of the currency. The Bank rate is normally applied to first-tier loans and an additional rate premium to second-tier loans. The Reserve Bank provides overnight loans (accommodation) against acceptable securities. It should be noted, however, that the overnight loan position is only known the next day after the clearing process of payment instruments has taken place at the ACB. First-tier collateral (with an unexpired maturity of not longer than 91 days) and second-tier collateral (with an unexpired maturity of longer than 91 days, but less than three years) were automatically and unconditionally utilised should a shortage of funds in the settlement account of a bank occur after the overnight clearing process had taken place (see 3.2.4 and 3.2.5). Additional overnight loan arrangements against third-tier collateral could be made with the Reserve Bank, although these loans were normally granted against higher penalty charges.

6. RECENT DEVELOPMENTS IN THE NATIONAL PAYMENT SYSTEM

6.1 The establishment of National Payment System management structures

PASA is the governing body for all payment streams (PSAs) in South Africa and makes strategic and policy decisions in conjunction with the Reserve Bank (see 1.4.3). Banks who wish to offer particular payment services to their clients are represented on PSAs. Initially PASA created four PSAs to manage:

- a paper-based stream;
- an electronic low-value debit stream;
- an electronic low-value credit stream; and
- an electronic high-value stream.

6.2 The South African Multiple Option Settlement system

The SAMOS system, implemented on 9th March 1998 and provided by the Reserve Bank, facilitates immediate real-time settlement for South African banks. All South African banks are eligible to link up to the SAMOS system in order to:

- transfer funds across their settlement accounts at the Reserve Bank in real-time;
- automatically raise central bank intraday loans under certain provisions;
- gain access to the central bank's marginal lending facility (accommodation window) at the end of the day; and
- participate in the new monetary policy operational procedures via repurchase agreements, which are also settled in real time.

In line with the envisaged reforms of the payment system, the new settlement system requires new settlement arrangements and new intraday accommodation arrangements to facilitate immediate real-time settlement (see 6.8).

Different technological options are available to banks to access the system. Provision is made for two message carriers. Due to the investment made by the South African banking industry in S.W.I.F.T., it was decided that banks could use this mechanism to transfer payment messages between themselves and the SAMOS system. SARB-Link will be established by the Reserve Bank to enable other banks to gain affordable access to funds transfers across their accounts and Reserve Bank accommodation. SARB-Link also provides other facilities which includes, *inter alia*, a bridge between S.W.I.F.T. and non- S.W.I.F.T. users.

6.3 Electronic cash developments

A banking industry electronic cash (E-cash) project was launched to investigate the emergence of electronic cash payment instruments and the need for regulation thereof. In conjunction with this project, initiatives are also being undertaken by concerned organisations in the banking and technology industry to create a secure environment for the facilitation of electronic commerce. These actions include, *inter alia*, the establishment of certification authorities (CAs). A CA is an institution, trusted by all participants, to issue and maintain public key certificates for digital identification purposes. A CA was established by the Reserve Bank to uniquely identify participants and provide a safe and secure link to the SAMOS system.

Some of the banks are also introducing payment services via the Internet. Clients will be allowed to conduct fund transfers across their own accounts and also execute payments to creditors. It is expected that international funds transfers could also be conducted should they be permitted by the foreign exchange regulations.

6.4 Southern African Development Community payment system initiatives

In accordance with the responsibilities under a Southern African Development Community (SADC) Finance and Investment Sector project, South Africa obtained the approval of the member countries to launch a SADC payment system project. The objectives are, *inter alia*, to define a coordinated regional approach to cross-border payments and to assist member countries to develop a domestic payment system strategy. A survey was also conducted to establish the existing situation regarding clearing, payment and settlement systems. Various focus groups were identified to concentrate on payment system related business areas which include, amongst others, risk, legal, payment instruments and financial markets.

6.5 Legal framework for the new National Payment System

The Reserve Bank is initiating the legislative process to effect the promulgation of the NPS Act. This act will enable the banking industry and specifically the Reserve Bank to give effect to the NPS strategy by providing the necessary, statutory powers. Aspects that are being addressed include, *inter alia*, finality and irrevocability of settlement, netting and clearing. Changes to the South African Reserve Bank Act will also augment the Reserve Bank's supervisory powers in respect of the payment system.

6.6 Securities settlement in the financial markets

Various initiatives are being undertaken to address settlement practices in the financial markets. The Johannesburg Stock Exchange and the Bond Market Exchange of South Africa are moving towards the introduction of G-30 recommendations, which include, *inter alia*, the move to continuous "trade plus three" (T+3) rolling settlement. This will reduce the lag between trading and settlement in the financial markets.

A strategic planning session, which included all the major stakeholders, was held in October 1997 to align securities settlement practices in the financial markets and payment settlement at the Reserve Bank. A more expanded strategy will, however, be developed and published. This strategy will include, *inter alia*, the development of the financial markets' infrastructures in line with international standards, and thereby enhancing South Africa's standing in the international financial markets.

6.7 Notes and coin management project

A national notes and coin management project was initiated in January 1997. The main objective of this project is to investigate the feasibility of the present national notes and coin management system.

6.8 New accommodation arrangements for monetary policy purposes

New intraday and interday accommodation arrangements were introduced with the implementation of the SAMOS system on 9th March 1998. The SAMOS system contains a dynamic collateral management component, which enables banks to obtain an intraday and overnight loan (under the marginal lending facility) from the Reserve Bank automatically if it has the necessary acceptable financial instruments available in the system to be used as collateral (see 5.2). The new settlement system can also, to provide for efficient liquidity management, automatically release the financial instruments as soon as the loan is no longer required, that is, on receipt of incoming payments. The SAMOS system will, through its immediate electronic settlement facilities, provide for the rapid transmission of the Reserve Bank's monetary policy actions through the interbank and short-term money market via repurchase agreements.

7. INFRASTRUCTURE

South Africa has a widespread telecommunications infrastructure which covers all main cities and towns. New developments are, however, underway to cover most of the deep rural areas with a telephone network. The introduction of cellular network phones has also improved the telecommunications infrastructure. Telephones are not the only means of distance communication. The use of facsimile machines is also widespread. The Internet has also brought the most modern

means of electronic communication, which is cheap, effective and, in most cases, reliable. The broad telecommunication infrastructure in the urban areas is adequate and reliable, making it possible for a reliable Internet infrastructure to be developed and maintained. Road transportation is still being used extensively for the delivery of cheques to and from clearing houses. The Post Office service also relies on the efficiency of the road infrastructure to provide its mail service. South Africa has one of the most advanced air transport infrastructures on the continent.

Table 1
Basic statistical data

	1992	1993	1994	1995	1996
Population (millions).....	38.9	39.7	40.6	41.4	42.3
GDP (billions of Rand)	341.8	382.2	431.1	484.6	542.7
GDP per capita (Rand)	8,796.0	9,624	10,623	11,695	12,828
Exchange rate (domestic vis-à-vis USD) year end	0.3274	0.2942	0.2816	0.2740	0.2135

Table 2
Settlement media used by non-banks
(in millions of Rand at year-end, not seasonally adjusted)

	1992	1993	1994	1995	1996
Notes and coin	12,445	12,804	16,848	20,354	22,075
Cheque and transmission deposits.....	30,191	35,850	45,573	53,172	66,333
Other demand deposits	31,845	30,066	36,728	45,242	65,310
Narrow money supply (M1)	71,571	76,398	94,538	112,745	147,581
Total money supply (M2)	172,149	178,947	215,823	245,722	284,423

Table 3
Settlement media used by banks
(in millions of Rand)

	1992	1993	1994	1995	1996
Reserve balances held at central bank	2,342	1,529	1,961	4,275	5,590
Transferable deposits at other institutions	-	-	-	-	-
Accounts at the Post Office	-	-	-	-	-
Accounts at the Treasury	-	-	-	-	-
Required reserves	-	-	-	-	-
Institutions' borrowing from central bank.....	3,724	5,844	5,090	5,164	10,449

Table 4
Banknotes and coins
 (in Rand millions)

	1992	1993	1994	1995	1996
Total banknotes and coins circulation	12,445	12,804	16,848	20,354	22,075
Banknotes and coin held by credit institutions	9,535	10,482	12,237	14,331	15,938
Total banknotes and coin outside institutions	2,910	1,382	4,611	6,023	6,137

Table 5
Institutional framework
 (at end-1996)

Categories	Number of institutions	Number of branches	Number of accounts (thousands)	Value of accounts (millions of Rand)
Central bank	1	-	-	-
Commercial banks	39	-	-	428,400
Mutual banks	6	-	-	767
Public credit institutions	0	-	-	-
Post Office	1	2,365	2,400	-
<i>Memorandum item:</i>				
Branches of foreign banks	6	-	-	-

Table 6
Participation in S.W.I.F.T. by domestic institutions

	1992	1993	1994	1995	1996
Members:	11	12	12	11	11
<i>of which: live</i>	11	12	12	11	11
Sub-members	6	5	5	9	10
<i>of which: live</i>	6	5	5	9	10
Participants:.....	0	0	1	1	3
<i>of which: live</i>	0	0	1	1	3
Total users:.....	17	17	18	21	24
<i>of which: live</i>	17	17	18	21	24
<i>Memorandum items:</i>					
Total S.W.I.F.T.					
members	2,074	2,244	2,551	2,845	3,014
sub-members	1,738	1,787	2,097	2,311	2,500
participants	91	125	218	315	404
users	3,903	4,156	4,866	5,471	5,918

Table 7
S.W.I.F.T. message flow to/from domestic users

	1992	1993	1994	1995	1996
Total messages sent	3,383,691	3,685,529	4,313,515	5,047,316	6,095,991
<i>category I</i>	737,400	843,765	936,153	1,095,983	1,213,011
<i>category II</i>	1,320,286	1,366,057	1,558,959	1,605,924	1,845,662
<i>sent to domestic users</i>	1,050,097	1,087,933	1,261,418	1,240,525	1,467,272
Total messages received	2,498,662	2,703,623	3,167,435	3,651,592	4,441,155
<i>category I</i>	554,248	626,817	724,247	882,304	1,031,055
<i>category II</i>	748,379	761,801	938,885	969,061	1,275,966
<i>received from domestic users</i>					
<i>Memorandum item:</i>					
Global S.W.I.F.T. traffic	405,540,902	457,218,200	518,097.873	603,575,374	687,785,294

Category I = customer (funds) transfer); Category II = bank (funds) transfer.

Source: S.W.I.F.T. users of South Africa

Appendix 1

Registered banks, mutual banks and foreign banks with South African bank branches as at 31st December 1996

<p>Registered banks</p>	<p>ABSA Bank Limited Albaraka Bank Limited Bank of Taiwan (South Africa) Limited Barclays Bank of South Africa Limited BOE NATWEST Limited BOE Private Bank & Trust Company Limited Boland Bank PKS Limited Cape of Good Hope Bank Limited Citizen Bank Limited District Securities Bank Limited Fidelity Bank Limited First National Bank of Southern Africa Limited FirstCorp Merchant Bank Limited Habib Overseas Bank Limited HBZ Bank Limited Imperial Bank Limited International Bank of Southern Africa - SFOM Limited Investec Bank Limited Investec Merchant Bank Limited Islamic Bank Limited Marriott Merchant Bank Limited Mercantile Bank Limited MLS Bank Limited NBS Bank Limited NDH Bank Limited Nedcor Bank Limited Ons Eerste Volksbank (Association not for gain incorporated in terms of section 21 of the Companies Act, 1973) Rand Merchant Bank Limited Regal Treasury Private Bank Limited Saambou Bank Limited Secfin Bank Limited Securities Investment Bank Limited Syfrets Bank Limited The African Bank Limited The New Republic Bank Limited The South African Bank of Athens Limited The Standard Bank of South Africa Limited UAL Merchant Bank Limited Unibank Limited</p>
<p>Registered mutual banks</p>	<p>Credit and Savings Help Bank GBS Mutual Bank TNBS Mutual Bank</p>
<p>Banks and mutual banks in terms of the Supervision of Financial Institutions Rationalisation Act, 1996</p>	<p>In terms of the provisions of the Supervision of Financial Institutions Rationalisation Act, 1996 (Act No. 32 of 1996), the following are regarded as a bank and as a mutual bank, respectively, with effect from 1st July 1996: Bank of Transkei Limited (Bank) Venda Building Society (Mutual bank)</p>

Appendix 1 (cont)

Registered banks, mutual banks and foreign banks with South African bank branches as at 31st December 1996

Mutual bank under curatorship	Community Bank
Foreign banks with South African bank branches as at 31st December 1996	ABN AMRO Bank N.V. Banque Indosuez Citibank N.A. Commerzbank Aktiengesellschaft ING Bank N.V. Société Générale

Appendix 2

APACS paper specification known as CSB1*

Propensity		Requirement	Test Method
Grammage/m ²		95 ± 5%	ISO 536
Thicknessµm		105 min	ISO 534
Smoothnessml/60s	WS	150 max	ISO 8791-2
	FS	150 max	
Stiffness m/Nm (Taber)	MD	0.33 min	ISO 2493 (10 mm test length)
	CD	0.13 min	
Internal tearing resistance m N/Sheet	MD	705 min	ISO 1974
	CD	705 min	
Porosityml/min		450 max	ISO 5636-3

* Cheque and MICR specification Document by the Cheque Standards Committee working under the auspices of The South African Banks Technical Committee.

Note: FS = Felt side. CD = Cross direction.