

Newsletter of the South African National Payment System (NPS) reform initiative

The South African banking industry is working within tight deadlines towards the introduction of the new electronic interbank settlement component of the National Payment System (NPS). The Reserve Bank informed all banks in February this year that the date for the switchover to the new system will be 9 March 1998. This edition focuses on the first phase of the implementation of the new settlement system.

New interbank settlement arrangements

The implementation of the new settlement arrangements, facilitated by the introduction of the South African Multiple Option Settlement (SAMOS) system, will have a big impact on the way in which the Reserve Bank and banks effect end-of-day interbank settlement.

Current process

- Interbank settlement positions resulting from the clearing processes are finalised overnight at the Automated Clearing Bureau (ACB) and are provided to the Reserve Bank the next morning.
- The Reserve Bank posts these figures to the accounts of the banks between 07:00 and 08:00 daily;
- Banks balance their positions by obtaining funds in the interbank market.
- Banks that are short of funds approach the Reserve Bank for a loan.

These procedures are normally completed by 09:00 daily, and the settlement (including the effective timing of the Reserve Bank loan) is backdated to the previous day.

Only the so-called direct clearing banks participate in this process. All other banks have to finalise their positions individually with their sponsoring direct clearing bank, by the end of the previous day.

Changes to the current practice

All registered banks will be eligible to open settlement and loan accounts at the Reserve Bank, in order to enable them to participate directly in the interbank settlement process. All banks wishing to

participate have until March 1998 to open settlement and loan accounts at the Reserve Bank and to prepare themselves for participation in the system.

The new system will work on a prefunding principle, that is, a payment can be made only if the paying bank has sufficient funds in its settlement account. Funds can be obtained through interbank transfers or Reserve Bank loans, granted dynamically by the SAMOS system, on an intraday basis. In order to obtain such a loan, a bank must have the required collateral available in the SAMOS system to cover the loan.

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Envisaged implementation of the SAMOS system

In order to facilitate the smooth introduction of the SAMOS system, a phased approach will be followed. This will allow banks time to adjust their internal processes and to introduce new customer payment options, as well as to determine the impact of the SAMOS system on their liquidity positions and money-market operations.

The SAMOS system and the interbank settlement network, SARB LINK, will be implemented on 9 March 1998. This will enable banks to make payments to and receive payments from the Reserve Bank, as well as other banks, electronically.

The implementation of the different features and facilities provided by the system will be phased in as follows:

Phase 1 Implementation of the new end-of-day settlement arrangements

TARGET DATE..... 9 March 1998

On 9 March 1998, the current Reserve Bank end-of-day interbank settlement and accommodation process, which is a manual operation effected at the Johannesburg Branch of the Reserve Bank, will be replaced by the new automated system. As from that date, the daily settlement of interbank exposures will be effected through the SAMOS system. The introduction of this system will go a long way towards bringing the interbank settlement practices on par with internationally accepted standards.

The system will provide banks with their end-of-day settlement obligations resulting from interbank transfers accumulated by the system, in real time, throughout the day, as well as clearing-house settlement obligations received from the ACB, or any other payment clearing house acting on behalf of its participating banks. The system will enable banks to receive funds obtained in the interbank market directly in their settlement accounts in the Reserve Bank's books.

Banks will also be able to utilise the system to make payments to each other during the day, in real time. Although final settlement of accumulated payments will still take place the next morning, banks will be able to use the facility to address their payment practices and to assess the impact that real-time settlement will have on their system and liquidity needs.

From 9 March 1998, the SAMOS system will be the only mechanism used by the Reserve Bank to make transfers to banks for, *inter alia*:

- Settlement relating to money-market transactions.
- Settlement relating to cash deposited by banks.
- Payment for maturing Treasury and Land Bank bills.
- Payment for capital and interest in respect of capital market instruments that are held within the Central Depository (CD).

The SAMOS system will also be the only mechanism available to banks to transfer funds to the Reserve Bank for, *inter alia*:

- Daily interest payments for overnight Reserve Bank loans.
- Settlement relating to Treasury Bill purchases and other money-market transactions.
- Settlement relating to cash withdrawals.

Although banks will be able to exchange payments during the course of the day and see their transactions reflected instantaneously on their settlement and loan accounts in the SAMOS system, these facilities will be provided on a provisional basis, since final and irrevocable settlement will continue to take place at 09:00, on the next business day, during this phase.

Facilities available to banks as from 9 March 1998

• The SAMOS dynamic collateral-management system

The dynamic collateral-management system will also be implemented on 9 March 1998. The system will automate the collateralisation required to secure loans granted to banks by the Reserve Bank. In order to facilitate automation, all securities pledged as collateral for Reserve Bank loans will in future be immobilised, that is, physically stored in either the Central Depository (CD), or the Johannesburg Branch of the Reserve Bank. This process will require the CD to make some changes to its systems, and the

Reserve Bank is developing a Financial Instrument Register (FIR), in order to make the immobilised securities available electronically to the SAMOS system. During the day, the dynamic collateral-management system will, in this phase, primarily be used to ascertain the impact of the collateral requirements of the SAMOS system.

At the end of the settlement process described above, the collateral-management system will be used to secure overnight loan positions. Each bank will therefore need to ensure that it has sufficient collateral available in the SAMOS system to secure its overnight loan.

- **SAMEX (SAMOS External) application**

The PC-based SAMOS front-end external application software (SAMEX) will be made available to banks in order to enable them to generate settlement instructions and to interface with the SAMOS system.

Banks will also be able to use SWIFT to send settlement instructions, receive notifications and do selected enquiries from the SAMOS system (refer to NPS Update : Volume 2, No.1).

- **Real-time position monitoring**

One of the innovative aspects of the SAMEX system is that banks will be able to monitor their settlement, loan and collateral positions within the SAMOS system on a continuous basis, thereby enabling banks to

manage their liquidity and payment flows optimally.

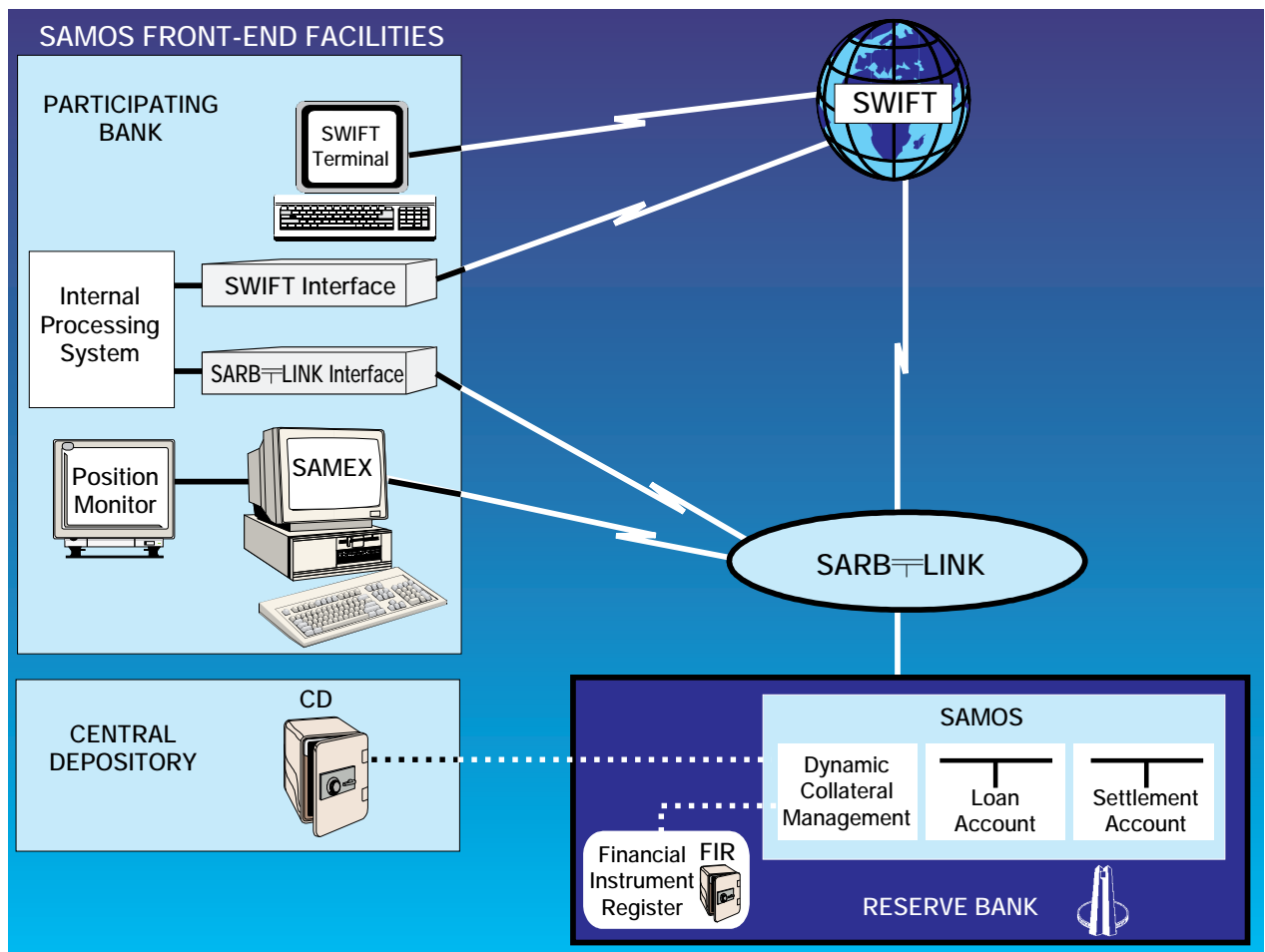
- **Reports and statements via SAMEX and SWIFT**

The SAMEX system will allow banks to view statements and other reports as well as download the information to their systems for further processing and auditing purposes.

SWIFT-formatted account statements will be available to SWIFT users.

- **Profile administration**

Banks will be able to administer their own participation in the SAMOS system by setting various options and parameters.



Implications for banks

Banks wishing to utilise settlement facilities at the Reserve Bank should position themselves to participate in the SAMOS system. This implies that each bank will have to address its business processes, systems and technological infrastructure in order to enable it to receive funds from and to transfer funds to other banks and to the Reserve Bank, via the SAMOS system. A number of co-ordinating bodies and information-dissemination channels, whereby progress and technology details are channelled to banks and other involved parties, have been created.

Technical details

A Reserve Bank position paper, outlining the options available to banks in order to link up with the settlement system, has been forwarded to all banks.

Furthermore, two technical documents have also been compiled by the Reserve Bank in order to enable banks to develop or enhance their internal systems to interface with the SAMOS system.

The first document is the SAMOS Front-end Interface Specification, for use by system analysts and developers responsible for the interfacing of banks' systems with the SAMOS system. The primary objective of this document is to provide specifications for all SAMOS message types in terms of the data content and layout of each message. The document will be distributed to all participating institutions and will be presented at various workshops.

The second document, SARB=LINK Interface Specification, details technical specifications and operational implications for linking to the SAMOS system through SARB=LINK, which is the interbank message-exchange mechanism created in order to enable banks to link to the Reserve Bank.



Strategy Team members who attended a farewell lunch for Jon Wildman from FNB.

Front row - left to right:

Jim Wareing, Mike Lear, Philip Tromp, Jon Wildman, Johnny Pienaar

Back row - left to right:

Peter Rawlings, Edward Leach, Ina Ströh, Graham Steyn, Michael Blackbeard

Simulation and testing opportunity

All banks have been invited to participate in a simulation and testing exercise, commencing in September 1997, which will be conducted at the Johannesburg branch of the Reserve Bank. The primary objective of this exercise will be to ensure that all banks are afforded an opportunity to gain an in-depth understanding of the functionality of the SAMOS system and SAMEX user interface.

Conclusion

In order for the South African banking industry to achieve this important milestone, each bank wishing to participate has to give its full co-operation. The schedule is demanding, but achievable. The phasing-in approach adopted, as well as the fact that the Reserve Bank will accommodate SWIFT messages and provide a PC-based front-end in order to enable all banks to participate, should make it possible to realise another significant milestone for the South African financial system.

Further phases of the project to be detailed in later editions

Phase 2 - Implementation of intraday settlement

TARGET DATE..... September 1998

Intraday settlement will be introduced in order to enable banks to do irrevocable interbank-fund transfers, throughout the day, to other banks and the Reserve Bank. This implies that transfers made throughout the day will be deemed to be final and irrevocably settled once processed successfully by the SAMOS system, thereby removing any uncertainty that the paying bank will not be able to honour its commitments.



Phase 3 - Implementation of same-day settlement for retail payment streams

TARGET DATE..... September 1999

The remaining hurdle between the South African payment system and internationally accepted practices will be removed during this phase, when the end-of-day settlement process will be moved from 09:00 on the day following the payments to the same day. The implications of this change for current business practices are such that the change will have to be well planned and will have to be accompanied by the introduction of alternate electronic-payment mechanisms.

It is anticipated that, for high-value transactions, the traditional cheque will have been replaced by a range of electronic payment instruments by 1999. The change to same-day settlement is therefore likely to have the greatest impact on retail payments.

What's happening ...

PASA function

The newly formed PASA council held its inaugural meeting on 25 September 1996, and Dr A P Burger (ABSA Bank) was elected as the first chairman.

A Steering Committee has also been appointed. Its mandate is to "advise Council on all strategic and implementation issues concerning PASA, PSAs and the payment clearing and settlement system".

Other elected council members were:

Mr S Roux (Boland Bank)
Mr H J Wilson (Nedcor Bank) **Deputy Chairman**
Mr J H Collett (First National Bank)
Mr W R Hyde (Standard Bank)
Mr D M Lawrence (Investec Bank)
Mr E de v Greyling (Rand Merchant Bank)
Dr P J Tromp (Reserve Bank)

Members of the Steering Committee are:

Mr M F Lear (Standard Bank) **Chairman**
Mr G J Steyn (Nedcor Bank)
Mr J W P Pienaar (ABSA Bank)
Mr P Rawlings (First National Bank)

What's happening ...

Establishment of PSAs

The PASA Steering Committee has made significant progress in defining the role and responsibilities of Payment Stream Associations (PSAs). At a PASA council meeting held on 24 March 1997, it was decided that four PSAs be established to manage:

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

The **paper-based stream** will concentrate on achieving efficient customer-to-customer funds collection (i.e. debit) services. To achieve economy the stream will exclude high-value transactions, and, with them, certain associated but costly risk-management processes. To the extent that paper-based credit transactions continue to be introduced by customers, this stream will also take responsibility for setting the appropriate standards of performance. It is envisaged that all paper-based transactions will be accumulated in appropriate clearing houses for batch settlement across SAMOS accounts at an agreed fixed time each day.

Electronic transactions have been divided into three separate streams for payment-risk management purposes. One will cater for low-value debits, and, as for the paper-based stream, will be designed to accommodate low-value transactions, thus eliminating the costs

of processing high-value items. **Low-value electronic debits** are likely to produce customer-to-customer payment services, including most card-based debit transactions, and services such as standing orders and cross-bank ATM-initiated transactions. Since debit transactions will not qualify for direct processing over the SAMOS accounts, they will necessarily also be accumulated for batch settlement at a fixed time each day.

The **electronic low-value credit stream** will cater for mainly customer-to-customer transactions, but some bank-to-bank transactions are also likely to flow. Low-value credits currently include transactions such as salary payments and certain regular account payment facilities. The essence of this stream is that transactions will be accumulated for settlement at a fixed time each day, rather than sent for direct real-time settlement. Recipients might therefore expect same day, but not immediate, value.

The **electronic high-value stream** will be used for those transactions which customers or the banks require to be processed at high levels of security, with confidence in their finality and irrevocability. These payments would include daily funds settlements for the various financial exchanges, corporate cash-management instructions, the domestic leg of foreign exchange transactions, end-of-day interbank money-market transactions, and other transactions requiring secure (and often immediate) interbank value transfer.



What's happening ...

Developing the NPS Act

The interbank working group, consisting of legal advisers from the banking industry, members of the Reserve Bank and an academic, has recently completed the final draft of the envisaged NPS Act. The Reserve Bank is initiating the legislative process in order to effect promulgation of the NPS Act.



Front row - left to right:

F Schutte, A Vermaak, M Blackbeard, F Viljoen, J Minnaar

Back row - left to right:

J Verhoog, M Huber, G Clark, E Leach



Information dissemination

Following the establishment of the Payment Association of South Africa (PASA), the need for the NPS Implementation Co-ordination Team (NICT) to disseminate information has fallen away, and the function has been taken over by PASA.

As from July 1997, PASA will therefore be responsible for the dissemination of information, and the Reserve Bank will furnish progress reports to PASA, on a regular basis.

What's new ...

The "NPS Update" is now available on the Reserve Bank website and can be viewed at:

<http://www.resbank.co.za>.

Workshop for other stakeholders

A further worksession, in order to update all interested parties on the latest developments regarding the NPS project, will be held towards the end of 1997.



Representatives from the banking industry who attended a work session in July 1997 regarding the impact of the NPS on payment instructions processed in South Africa for MMA countries.

Front row - left to right:

Doug Rymer, John Verhoog, Edward Leach, Mike Huber

Back row - left to right:

David Hartman, David Harrington-Johnson, Jevan Frylinck, Nelis Havinga, Stan Epstein, Norman Stegmann, André Vermaak



What does...mean?

| | |
|-------|---|
| ACB | Automated Clearing Bureau |
| CD | Central Depository |
| FIR | Financial Instrument Register |
| NICT | NPS Implementation Co-ordination Team |
| NPS | National Payment System |
| PASA | Payment Association of South Africa |
| PSA | Payment Stream Association |
| SAMEX | SAMOS External (System) |
| SAMOS | South African Multiple Option Settlement (System) |
| SARB | South African Reserve Bank |
| SWIFT | Society for Worldwide Interbank Financial Telecommunication |

FROM THE EDITOR

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