Paul Hartmann: The impact of financial infrastructure transformation on monetary policy execution - the Namibian experience

Keynote address presented by Mr Paul Hartmann, Deputy Governor of the Bank of Namibia, on behalf of Mr Tom Alweendo, Governor of the Bank of Namibia, at the Perago User Conference 2004, Pretoria, 22 September 2004.

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Mr. Chairman
Participants from Central and Commercial Banks
Representatives from various Corporations
Distinguished Guests
Ladies and Gentlemen

It is a great pleasure to address you this morning at this Perago's User Conference 2004, which is the second user conference that Perago has arranged. In line with the theme of this conference, which is "inventing and enabling our future", the focus of my address today is on the impact of financial infrastructure transformation on monetary policy execution in relation to the Namibian experience.

Ladies and gentlemen, when we refer to payment systems, we are looking at instruments, organisations, operating procedures, and information and communication systems used to initiate and transmit payment information from payer to payee to settle payments - that is, transfers of money. When such systems are designed, it is critical that they enhance the efficiency with which monetary policy is conducted, the soundness of financial institutions, and the functioning of the economy as a whole. The growing complexity and diversity of financial markets and financial instruments, globalisation and integration of markets, and strong growth in private capital flows call for the strengthening of such links. The payment system, therefore, represents the interaction between transactions in the real economy, such as purchase of goods and services, including financial instruments and financial transactions, and this interaction gives rise to payment and settlement obligations. Banking institutions play a role of payment intermediaries because they hold the settlement accounts of those engaged in economic activity. Amongst the banks there should be an interbank transfer system, representing the clearing and settlement process. The central bank is responsible for final settlement and payment transfers that take place across the accounts which banks hold at central banks.

Mr. Chairman, the increased attention being paid to modern payment systems was triggered by the a massive increase in the number and value of settlement transaction, as well as the technological advances that caused much faster movement of funds. There is also widespread consensus of the pivotal role that payment systems play in any market economy, that is:

- as a vital element in the financial infrastructure of the economy;
- as a necessary channel for effective economic management, particularly through monetary policy;
- as a means of promoting economic efficiency.

In my address today, I am expected to focus primarily on the role of payment systems in monetary policy execution with respect to the Namibian experience, but it would be to the benefit of the audience if I take the scope of my presentation a bit wider. I must also stress right at the outset that as a member of the Common Monetary Area (CMA) it is not possible for Namibia to pursue an independent monetary policy. Monetary policy intervention is very much dictated by the monetary policy stance taken by South Africa. Therefore, the use of our RTGS system in monetary policy execution is quite limited. Nevertheless, the financial infrastructure transformation that Namibia has undertaken and continues to undertake has enabled us to better understand and manage domestic and cross-border payment and liquidity flows and to institute appropriate risk management strategies. Against this background, I will firstly deal with the role of payment systems in monetary policy implementation. Secondly, I would like to share our experience in reforming the Namibian payment system. Then I will outline issues related to the Bank of Namibia's accommodation policy that had to be reformed to allow for the smooth and efficient functioning of our RTGS system.

1. Payment systems and monetary policy implementation

The large-value payment system of a developed market economy has a major role to play in the successful implementation of the key responsibly of every central bank - namely achieving and maintaining monetary and financial stability.

In a modern market economy, the main instrument of monetary policy is the short-term interest rate, i.e. the rate at which commercial banks can borrow from and lend to each other in the money markets. Central banks control this interest rate through their ability - as the ultimate provider of liquidity to the banking system - to influence the balance between supply of and demand for funds in money markets. In some countries, changes in the level of mandatory reserves that the commercial banks are required to hold with the central bank are also used to influence the supply/demand balance and hence generate the required movement in short-term interest rates, and therefore in the whole spectrum of interest rates in the economy. Through open-market operations some central banks intervene in the market to maintain interest rates at desired levels.

An efficient interbank money market is a prerequisite for these processes to be successful. Also, the central bank should be in a position to reliably forecast factors that influence the daily liquidity in the monetary system. A reliable RTGS system is therefore indispensable to enable central banks to determine the monetary conditions in the economy and to implement appropriate monetary policy.

The Namibian RTGS system certainly enables us to monitor the monetary conditions, but the Bank of Namibia does not have the ability to use its Bank rate to influence the liquidity situation and market conditions in the way that most central banks can do. Also, we do not manipulate the reserve asset requirement to manage the liquidity situation in Namibia. Moreover, an active interbank market is still lacking in Namibia, as banks conduct interbank transactions with their South African parent companies rather than with other domestic banks. However, as I will indicate later on there are still other tools and methods with which we can manage liquidity within the RTGS system.

Let me now retract a bit by giving you an overview of the payment system reform project in Namibia.

2. Namibia's payment system reform project

Namibia's payment system reform project is essentially driven by three key considerations:

- Firstly, the foremost driving force behind the project is the realisation that the Namibian payment system reform process is essential to reduce various payment system risks and increasing the efficiency of the Namibian financial system and the functioning of its economy.
- Secondly, South Africa, having been the settlement centre for a long period of time, has realised by allowing its payment system to be used by other countries it could introduce risk from these countries, which, in turn, could destabilise its financial system. CMA countries were therefore, encouraged to establish their own domestic clearing and settlement arrangements and to institute appropriate arrangements for cross-border transactions.
- Thirdly, under the consultative framework provided by the SADC Central Bank Governors, an initiative was established to define and implement safe, efficient and harmonised payment systems in SADC member states and to implement a regional cross-border payments strategy in support of the free-trade protocol.

The guiding principle that led our reform programme was the realisation that safe, efficient and cost effective payment systems are critical to the sound functioning of the financial system and are a key requirement in maintaining and promoting financial stability. A sound and safe functioning payment system also facilitates prudential supervision, and improves monetary policy intervention and liquidity management.

The national payment system reform project is driven by the entire banking industry and led by the Bank of Namibia as overseer of the clearing and settlement processes. The Bank of Namibia and the Bankers Association of Namibia have agreed that the Bank would spearhead the settlement leg of the project, while commercial banks would assume responsibility for seeking appropriate solutions for the Namibian payment and clearing arrangements. Commercial Banks are driving the payment and clearing process in line with standards laid down by the Bank of Namibia. Both projects are closely co-ordinated between the Bank and commercial banks and for each a steering committee has been created.

Namibia has implemented a settlement system through Perago who was the system and service provider and also project manager. This system is called NISS - the acronym for Namibia Inter-bank Settlement System that went live on the 10th June 2002. The system is based on Real-Time Gross Settlement principles and has enabled Namibian banks to exchange payments electronically, in real-time, amongst each other and between themselves and the Bank of Namibia. In accordance with international practices, these funds transfers are final and irrevocable, and in this way the Namibian system is brought in line with generally accepted principles for safe and efficient national payment system. All commercial banks in Namibia are connected to NISS via SWIFT, the international de facto financial message carrier. They are entering the system through the NISS entry user interface also provided by Perago. On the 16th April 2004 the Bank of Namibia and two commercial banks have switched to Trustlink a bureau service for SWIFT. This link-up will improve efficiency in that all services related to SWIFT will be provided by the bureau, while there is also a substantial cost savings to this arrangement.

Namibia's RTGS system is not simply the installation of computer hardware and software - it involved the reengineering of the financial system in Namibia. A number of existing policies, procedures and rules have been modified and fine-tuned to support the overall financial system of the country and to enhance the effectiveness of central bank policies. Some legal statutes have been created such as the Payment System Management Act and some amended such as the Bills of Exchange Act in order to make the system legally enforceable and to properly align it to the Namibian legal environment. As such, it required a willingness to change from existing policies, practices and processes that existed then.

The advantages of NISS to commercial banks are the improved visibility and management of risk and exposures, optimal usage of own liquidity and possible new services to customers. For the Bank of Namibia, the system led to enhanced mechanism supporting monetary policy execution, containment of systemic risk and a platform for financial market deepening. Overall, the system has improved the international risk profile of Namibia.

Payment instruments take many forms, such as cash, money orders, cheques, debit and credit cards, electronic funds transfers, point of sale and automated teller machines. The importance placed on these instruments is its liquidity, which relates especially to general acceptability and marketability, with little or no risk of capital loss. These payment instruments must be cleared and this is done normally through a clearing process that will allow settlement to take place.

In Namibia, NISS is currently settling obligations resulting from domestic cheques and high-value interbank payments. The remaining payment streams i.e. cards and electronic payments will follow at a later stage. This means that the annual turnover in the NISS is still quite small: in 2003 the ratio of settlement turnover to GDP was about 7:1, compared to ratio of more than 30:1 in South Africa.

Apart from the domestic cheque clearance, most domestic and cross-border payments arrangements and clearing systems are still integrated and intertwined in the South African payment system, making use of various payment and clearing services through Bankserv, the South African inter-bank payment services utility company.

The Namibian clearing project is therefore aimed at designing, developing and installing systems that will support paper, card and electronic transactions through Namibianised systems. The clearing system project is primarily driven by the commercial banks in accordance with a high-level project plan has been approved by all parties. The Clearing System Steering Committee has agreed to appoint a project adviser to assist in defining the system architecture, preparing a Request-for-Proposal (RFP) and evaluating the system proposals. The Electronic Funds Transfer (EFT) system should be operational at the end of May 2004. By October 2004 the EFT and Cheque streams should be migrated to the new platform (NAMCLEAR) and fully integrated with the settlement system.

All current paper, card or electronic based transactions will continue to be offered to the public and businesses. The significant difference, however, is the fact that all these transactions will be supported by Namibian systems. Moreover, cheque clearance should be much faster than is currently the case, meaning that beneficiaries will obtain quick value for cheque payments. People and businesses that make and receive payments will have the advantage of improved cash flows, which may further stimulate trade and the velocity of money in circulation.

One area where further consideration will have to be given is transactions to and from South Africa. At the time when Namibian payment systems become operational and Namibia no longer depends on South African payment systems, cross-border payments will have to be made on a correspondent banking relationship. Still, the Bank of Namibia and the banking industry will continue seeking system solutions that will allow and support electronic linkages between Namibian and South African payment systems.

3. Issues pertaining to liquidity management

The implementation of the NISS on 10 June 2002 and the subsequent introduction of Intra-day Repurchase Agreement (repo) on 27 October 2003 compelled the Bank to introduce a new lending policy and credit facilities for local banking institutions. More specifically, the Bank introduced a lending system comprising the following components:

- Before the implementation of NISS, the Bank allowed banking institutions to overdraw their current account against securities pledged to the Bank. The purpose of the facility was not specified meaning it could be used for liquidity for settlement and non-settlement purposes. The facility did not have any time limit. Collateralised credit attracted interest at the Bank Rate, while double the Bank Rate was charged for uncollateralised credit.
- Shortly after the introduction of NISS, as an interim measure, the Bank provided credit to banking institutions through the Credit Limit Module in NISS. In this arrangement a limit for each participant was set daily against the collateral pledged to the Bank. This facility was added to an existing credit facility offered by the Bank, which provides credit for non-settlement purposes. Both facilities attracted interest at the Bank Rate.
- With the introduction of the intraday repo on 27 October 2003, the Bank started providing credit to participants through repurchase agreements and credit limits collateralised by reserve balances. In this case credit is only available for intra-day and overnight purposes. For longer periods, credit was provided on a facility outside NISS. The Bank Rate applied to both facilities.

In September 2003, all settlement transitions were brought on a ***same-day settlement*** basis. Previously, NISS participants had until 09h00 the next morning to obtain sufficient liquidity to settle obligations accrued during the previous fund settlement value date. This modification has obliged participants to retain sufficient liquidity on their settlement accounts to meet their daily settlement obligations.

Same-day settlement also saw increased liquid deposits held by commercial banks on the Bank's call account. Interest payable on these balances in a way became a policy tool to manage liquidity to some extent. During times of high outflows, the rate is increased, while the rate is decreased at times of excess domestic liquidity.

Moreover, same-day settlement has sharply reduced the used the intraday credit / repo, because it obliged participants to use their own liquid funds rather than rely on central bank intraday credit (which was actually overnight credit). For example, maximum intraday credit extended to NISS participant was about 14 percent of the settlement value in June 2003; this ratio has come down to about 6 percent in April this year.

These reforms were mainly meant to improve the ability of the central bank to manage the liquidity of the monetary system and to manage risk exposures. Let me now turn a few further reforms that the Bank of Namibia is currently envisaging.

4. Bank of Namibia's proposed accommodation policy

Mr. Chairman, I would like to turn our attention to Bank of Namibia's accommodation policy, since I regard this as an important component of monetary policy.

A central bank could provide credit facilities as part of its payment services, especially in connection with large value transfer systems, to facilitate a smooth flow of settlement in the payment system. But, the central bank will not want these credit operations to reduce its control over liquidity and monetary management. It will also want to avoid becoming lender of first resort for market participants. On the contrary, it would want to foster the development of private money markets, including those for intraday funds. Moreover, in granting credit, a central bank will typically wish to use both prices and objective rationing criteria comprising (i) observance of regulatory and supervisory norms, (ii) provision of collateral, and (iii) requirements for borrowers' capital.

Our new policy focus is for the Bank to provide liquidity to banking institutions through four different facilities, each with different terms and conditions. These facilities are the Intraday Repurchase Agreement, the Seven-day Repurchase Agreement, the Marginal Lending Facility, and Lender of Last Resort. Since the Lender of Last resort would be highly discretionary, I will focus more on the other three.

Before I move on to explain how the facilities are applied, let me explain the underlying principles of our accommodation policy:

- The Bank recognises its distinct role of short-term liquidity provider to NISS participants with a view to enhance timely and smooth settlement. This role should, however, not interfere with the Bank's monetary policy or liquidity management roles.
- In the same vein, the Bank should guard against perpetual lending as this could bleak the view on financial soundness of banking institutions. For this reason, any lending to banking institutions shall be for a limited time period.
- The RTGS environment requires participants to maintain adequate balances on their settlement accounts at the Bank and not rely on the central bank to fulfil that obligation.
- Liquidity provision by the Bank should not come at the expense of local interbank money market development. Therefore, since the Bank prefers not to be the lender of first resort, it encourages banking institutions to first seek liquidity in the local market and increase their holding of eligible financial instruments.
- In providing accommodation to banking institutions, the Bank shall ensure that credit extended shall at all times be fully and appropriately secured. Banking institutions are therefore encouraged or even compelled to hold appropriate mix of securities reflecting their liabilities.
- For each accommodation window, the Bank shall ensure that securities repoed or collateralised to each facility will not overlap with securities in other facilities. For this reason, securities will be differentiated in terms of maturities and issuers.

Having expressed the principles of our accommodation policy, let me explain the three main accommodation windows that the Bank is currently considering.

Intraday Repurchase Agreements

In this facility, the Bank grants short-term or intraday liquidity to banking institutions in NISS for settlement needs only. Credit is extended primarily through the following:

- The automatic repo facility using eligible securities in a Repurchase Agreement between the Bank and banking institutions.
- Banking institutions are allowed to use up to 25 per cent of funds held in the minimum reserve account at the Bank, provided that the prescribed balance is restored to the required minimum over the 14 day averaging period.

The facility is automatic provided that:

- a banking institution has entered into a valid repo agreement with the Bank;
- a banking institution has sufficient and appropriate securities reserved for repo purposes with the Bank of Namibia; and
- a banking institution has maintained a sufficient balance on its minimum reserve account over a 14 day maintenance period.

Credit through this facility will only be provided during the day, i.e. intraday. However, it may be expandable overnight and must be repurchased before the close of the next working day i.e., before the second night. If a banking institution does not have sufficient funds to repurchase its securities back, it could obtain credit from the next facilities i.e., Seven-day Repo and/or Marginal Lending Facility.

Seven-day Repurchase Agreement

This facility provides liquidity to banking institutions under the premise of monetary policy or liquidity management. Accordingly, it provides liquidity to banking institutions when they do not have sufficient securities for additional credit at the intraday facility in the NISS. For this reason, a banking institution may apply to obtain credit to either repurchase its securities and/or obtain sufficient credit for anticipated settlement needs. Liquidity is provided under this facility through a Seven-Day Repurchase Agreement.

This facility operates under standing conditions and it is obtained through prior application to the Bank. It is, however, managed outside the NISS.

Marginal Lending Facility

This facility has been introduced to offer special assistance to banking institutions that could not obtain sufficient liquidity at the first two facilities. The use of this facility is highly discouraged and would only be used under special circumstances. Thus, lending through this facility would be considered on a merit of each case presented to the Bank. This facility serves as an important indicator for example:

- It gives clear indication as to when a banking institution should be suspended from the NISS.
- It gives indication as to when Banking Supervision Department should be notified.
- It provides a smooth path to action under the lender of last resort policy.

5. Conclusion

Mr. Chairman, in my address today I have given you a generic overview of the importance of payment systems in monetary policy implementation. To understand the Namibian situation, I have also given you a brief impression of our payment system reform process and the strategic and policy considerations that went into the design and operation of the systems. Yet the reform process is not over yet. There are always areas where one can modify or fine-tune certain procedures, operations and policies to improve the effectiveness of the system and to reduce or contain risks.

I trust that the audience has obtained a better understanding of the role of payment system in monetary policy implementation and the way Namibia has addressed certain vital policy issues. In hindsight, I think the capital we have invested in our RTGS system has proven to be worthwhile. With the implementation of an electronic settlement system, a number related policy issues became evident and were reconsidered and reformed. The system, accompanied with our accommodating policies, has enabled Namibia to come closer to meeting the BIS core principles for systemically important payment systems. What remains to be achieved is to complete the Namibianised clearing systems for the three payment streams, to establish a clearing house and payment system management body and to effectively oversee the payment systems to ensure that sufficient attention is given to risk reduction and management of their design and operation. The infrastructure that we have developed has certainly enabled Namibia to fulfil its statutory role to promote and maintain an efficient payment system.

Finally, I would like to thank Perago for hosting this meeting as the continued consultation between Perago as suppliers and developers of payment system applications and we as users is vitally important. I wish you all fruitful deliberations over the next few days.

I thank you.