

# **ANNEXURE A**

---

## **SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) PAYMENT SYSTEM PROJECT**

### **COUNTRY-SPECIFIC PROGRESS REPORTS FOR PERIOD APRIL 2008 TO MARCH 2009**

---

#### **REPORTS**

##### **1. ANGOLA**

###### **1.1 INTRODUCTION**

The Angolan Payment System (SPA) infrastructure encompasses a fully functional and up to standard RTGS system (SPTR); a semi automated clearing house for cheques and credit transfers (SCV); Multicaixa, an Automated teller Machine (ATM) / Point Of sale (POS) switching system; and a new Central Securities Depository (SIGMA) for dematerialized Government bills and bonds and securities issued by the BNA.

In order to reach the objectives drawn in the preterit year, the Head of the Department tried in the incessant form to excel for the improvement in all the processes of work aiming at the satisfaction of the settled objectives, as well as making sure in the course of the year that the methods and proceedings adopted in the development of the activities were compatible with the specification of each task and in harmony with the general direction defined by BNA board of Directors.

For the year of 2009, it is on course of implementing the following actions that will allow adapting the SPA to the Core Principles for SIPS:

- a) Implementation of the actions tenants to the creation of the Angolan Automatic Clearing House;
- b) Elaboration of a consolidated Manual containing all SPA legislation related to SPTR, MULTICAIXA, SCV and the CCAA;
- c) Approvation and publication of Oversight Policy documents, containing the objectives, scope and Angolan Payments Systems oversight standards;
- d) Elaboration of the Internal Procedures Manual for the Oversight Sector;
- e) Discussion and approvation of the Cooperation Memorandum between DSP and DSI;
- f) Discussion e approvation of the Cooperation Memorandum between BNA and CMC (Stock Exchange).
- g) Development and implementation of the new application program for the calculation and control of the fulfillment of the compulsory reserves;
- h) Return the actions tendents to the implementation of the Project of Payment of Salaries to State Workers;
- i) Continuing the actions tendents to the implementation of the Process for the new routine for taxes payments.

## **1.2 OPERATIONAL ISSUES**

On operational slope the SPA entails fundamentally the activities related with Angolan payment System reform and modernization strategy, such as the management of the semi automated clearing house for cheques and credit transfers (SCV), the supervision of the Multicaixa, an Automated teller Machine (ATM) / Point Of sale (POS) switching system and the administration of the SPTR as well as overseen the payments systems and instruments in the country.

The payments transacted in the SPTR include the interbanking payments from a commercial bank to another commercial bank, for itself and in clients' order, payments of / for the BNA and the Treasure, as well as the transfers originating from the interfaces from BNA internal subsystems namely, SIGMA, Operations with notes and coins (deposits and withdraw from the commercial banks in the BNA), and OPICS (foreign exchange).

### **1.2.1 Base Legal**

On the context of regulating the clearing house and clearing and settlement systems of the Angolan Payments Systems (SPA), with objectives to adopt a risks control mechanisms in the payment systems, in the fulfillment to what was established at point 2 of the 3rd Article of the Law nº 5/05, from July 29<sup>th</sup>, Angolan Payment System Law, also to establish the direct for the functioning of the above-mentioned systems and the responsibilities connected with their operational, additionally, two norms were elaborated and approved by the Angolan Payment Systems Technical councils, namely the NOTICE that establishes the classification of the clearing house and clearing and settlement systems of the Angolan Payments Systems (SPA) with sight to adopt risks control mechanisms in payments systems, and the INSTRUCTIVE that regulates the Clearing House and the clearing and settlements systems of the Angolan payment systems (SPA). Still, in this context, in accordance with the Core Principles for SIPS and as it was recommended in the last FSAP evaluation, one of the actions for 2009, is an elaboration of a consolidated Manual containing all SPA legislation related to SPTR, MULTICAIXA, SCV and the CCAA.

### **1.2.2 Systematic Course on Payment System**

This training action financed by the World Bank in the context of the Project of Technical back-up to the Macroeconomical Management, its objectives is to endow the BNA staff with a series of tools, which will allow, the increase of their

capacities of criticism, analysis and evaluation of subjects connected with payment systems, in such way, hat they could manage, use and to effectuate the constant maintenance to all existing systems connected with aspects of payments systems, including the methodologies, procedures and instruments, in the sense of making possible to be able to implement new actions aiming at the increase of the level and of the quality of the services to be given. The course is being administrated by a winning enterprise from the international contest organized during 2007 1<sup>st</sup> semester, it started in the beginning of January 2008 with the participation of 24 graduates staff from DSP, DGR, DMA and DSI, and in the course of the period in analysis there were administered 9 modules of the predicted 12.

### **1.2.3      Statistics**

In 2008, the Angolan Real Time Gross Settlement System, SPTR, observed a global positive variation of 55 % in the operations volume transacted and around 122 % in terms of value transacted, compared with the year 2007. This represented a total settlement of 112.604 in payments at a value of AOA 17.555.883.804.526,60 equivalent to 234.078.450.727,02 USD. The average of monthly processing in volume and value was around 9.384 and AKZ 1.462.990.317.043,89 equivalent to 19.505.537.560,59 USD respectively. From the value settled, around 3,6% corresponds to the multilateral balances apurated in the SCV and MULTICAIXA. On the table below it is possible to see the annual variation of the volume and value of payments instruments in the country (SCV, MULTICAIXA and SPTR).

## STATISTICS OF SPTR TRANSACTION DURING THE YEAR 2008

ANUAL		
BANCO	MONTANTE	VOLUME
BANC	114.017.766.580	595
BAI	1.133.168.203.268	13.094
BIC	840.356.231.566	9.231
BCI	459.052.506.880	9.929
BMA	274.281.753.953	2.643
BDA	123.977.262.729	831
BESA	1.958.505.616.202	9.984
BFA	1.029.325.765.461	15.049
BNI	84.086.523.060	1.730
BPC	3.858.012.464.225	9.053
BQC	169.711.790	145
BRK	381.898.250.652	4.617
BCA	314.400.972.412	2.577
FINB	4.818.517.297	253
NVB	2.395.706.210	1.284
BPA	376.184.178.035	1.138
BSOL	428.169.941.145	6.218
BTA	276.379.713.335	2.577
VTB	34.019.249.767	328
BNA	5.862.663.469.959	21.328
<b>TOTAL</b>	<b>17.555.883.804.526</b>	<b>112.604</b>

### 1.3 SETTLEMENT SYSTEM DEVELOPMENT AND PROJECTS

#### 1.3.1 New Routine For Tax Payments

The project of introduction of a new routine for taxes payment began in 2004, with any chance to continue within next years due to lack of feedback from MINFIN. In 2005, various meetings were carried out between the BNA/DSP and MINFIN/DNT/DNI and DNA, BNA prepared a draft Notice which was sent to the MINFIN, and then again it did not have the result expected from us. The process was retaken in October/08 with the realization of some meetings for synchronization between the persons responsible and staff from BNA, MINFIN (DNI, DNA, GAI) and EMIS, with the objective to make an inventory of the technical solutions and the operational mechanisms that will allow the use of the SPTR and the MULTICAIXA system for tax payment, both this system have an

infrastructures that allows the use of the most modern, secure and safe payment instruments that reduce some of the typical payment systems, many of them associated to cheques. In the year of 2009, there are predicted actions tending to implementation of the project for the new routine for tax payment.

### **1.3.2 Financial Settlements of the Transactions within the Open Market**

The operational routines were discussed and agreed for the settlements of the transactions within the open market (Stock Exchange) in the Angolan Real Time Payment System (SPTR). The specification of the interface was prepared also between the SPTR systems and CELCUS (Angolan Central Office of Settlement and Custody of the Stock Exchange and Derivatives) and sent to the Assets Commission to structure the file to be sent by from, CELCUS to SPTR for the settlement of the cleared balances, as well as the structure of the filing cabinet of the answer of the liquidation of the SPTR to the CELCUS.

## **1.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

### **1.4.1 Clearing Value Systems (CSV)**

Realization of an auditing on the operating systems of the Retail Payments Subsystems (SCV and MULTIBOX), by an enterprise contracted by BNA, through an international open context organized for the purpose.

### **1.4.2 Angolan Automated Clearing House (CCAA)**

The future Angolan Automatic Clearing House (AACH) will provide two new services very important for the Angolan banking sector, namely Credits Transfers and Directs Debits. ACH will support the clearing for the following retail payments instruments:

- a) Debit and Credits Cards
- b) Credit Transfers
- c) Direct Debits
- d) Cheques

In the course of the period in analysis, it was discussed and approved by the members of Angolan Payments System Technical Council (CTSPA) a drafts of a NOTICE and INSTRUCTIVE which will regulate the clearing houses and clearing and settlement systems of the Angolan Payments Systems (SPA). However, they still waiting for the approval by BNA Board of Directors in the beginning of January 2009.

#### **1.4.3 Project of Internationalization for Multicaixa Network and Implementation of VISA Credit Cards in Angola**

The Project of Internationalization of Muticaixa network is concluded at the slope of the acceptance of VISA Cards in Automatic Teller Machine (ATM) and Point of Sale Terminals (POS). Additionally, it was also implemented the project of Certification of the Multicaixa network with accordance to the international standards of security and processing PCI (Payment Card Industry Data Security Standard).

Regarding Affiliation, Certification and Implementation of member's banks in the VISA Acquiring ATM and POS, at this moment 9 banks are affiliated where 5 principal members, 3 associated members and 1 with representation. Note that, from the affiliated banks, 7 are active and 2 are in phase of system development and integration. Efforts are being developed for the remaining banks so that, soon, the bank system can have all the banks properly aligned and affiliated to VISA Network, in the slope ACCEPTANCE, which will facilitate the adhesion of other brands, namely MasterCard.

As for the Project of Issue, the current issue platform of EMIS supports only the issue for domestic cards brand. With a view to ensure the support to the issue of multi-brands, it was decided to invest in a new platform, which will substitute the current Multicaixa cards management platform which is part of EPMS (solution property of the SIBS).

The new Platform will be based on a market solution. For the realization of the relative studies in order to select a supplier, it was signed with SIBS and NovaBase a contract of consultancy, on the basis of which the RFI (Request of Information) that allowed to do the selection of a long list of six suppliers. With this shorts list, took place the RFP (Request of Proposals).

Three phases are identified for the project:

Phase 1 - Supports the local issue for cards with international brand and acceptance on-us of issue cards by Angolan banks

Phase 2 – Migration of the domestic card for EMV

Phase 3 – Co-branding the domestic card with international marks

#### **1.4.4 Project on Salaries of Payment to State Workers (PPSFP)**

This project had not developments to register in the course of the period in analysis since we still waiting for the pronouncement of the MINFIN/National Direction for Treasure, regarding the implementation of the pending tasks on Action Plan of the project, which was forwarded to the above institution. The pending tasks related to this project will be implemented in the course of the year of 2009.



## **1.5 E-MONEY AND MOBILE BANKING INITIATIVES**

The Angola Financial Sector uses new technologies to render speedier, more reliable and efficient banking services and products, which is an integral part of the Central Bank's incentive for e-money and mobile banking initiative. Even though is still on the early stage, currently the banking sector has available for their clients the following products and service:

1. Home banking - internet banking access 24 hour per day and 365 days per year.
2. SMS Service – Access to some banking services through mobile SMS (sending and receiving text message)

## **1.6 OVERSIGHT ISSUES**

The function of oversight the payment systems by central banks have the objective to secure a safe functionality of the payment system, promoting safe and efficient systems, reducing the risks that they are obliged to incur and fighting the market faults.

To delimit the frontiers of this activity and to make the principles and procedures transparent in the exercise of this activity a document was elaborate to publish the Oversight Policies for the Angolan Payment System.

The respective document presents the oversight policies for the National Bank of Angola (BNA), its objectives, scope, standards, methodology and instruments, reflecting its divulgation, the fulfillment of transparency principles that should inform the intervention of the Bank within Angolan Payment System (SPA). This objective has an eminently informative character, solely for the participants and system operator.

## **2. BOTSWANA**

### **2.1 INTRODUCTION**

**2.1.1** This report summarises progress on the Botswana Payments System reform and modernisation programme for the period April 2008 to March 2009.

**2.1.2** The report is in accordance with the new prescribed format and it outlines the significant milestones achieved in terms of overall payments system issues and project development during this period.

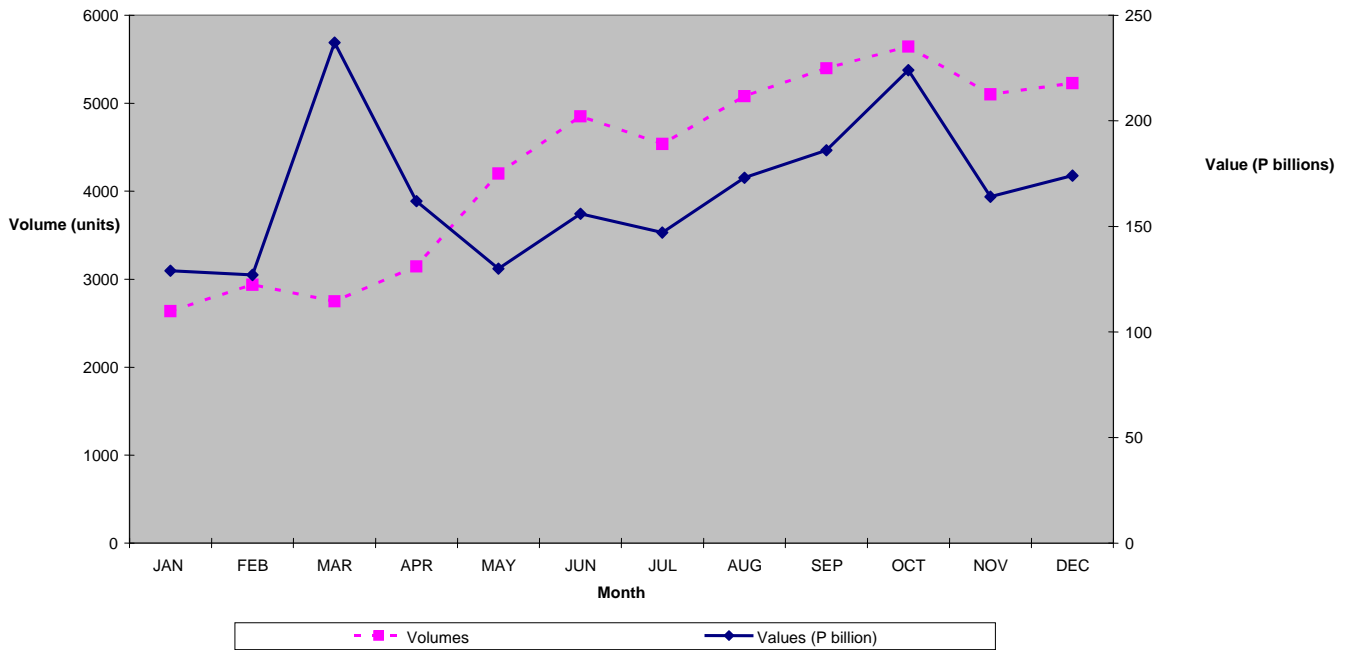
### **2.2 OPERATIONAL ISSUES**

**2.2.1** The operations of the Real Time Gross Settlement System (RTGS), known as Botswana Interbank Settlement System (BISS), and those of the Electronic Clearing House (ECH) remained stable during 2008. Both payments systems are fully operational and performance is satisfactory. Priority has been given in the area of payments systems risk management and control in order to further minimise any potential risk that may lead to systemic disturbances. To this end, discussions are at an advanced stage for the introduction of penalty charges on selected BISS transactions to instil discipline amongst members. The penalty fees have been agreed with all stakeholders and the effective date for the introduction of the charges is April 1, 2009.

**2.2.2** Participants have been working on interfacing their back office systems with the BISS through SWIFT Alliance application to achieve Straight Through Processing (STP) by March 31, 2009. The Bank intends to conduct on site inspections after the deadline date to ensure compliance.

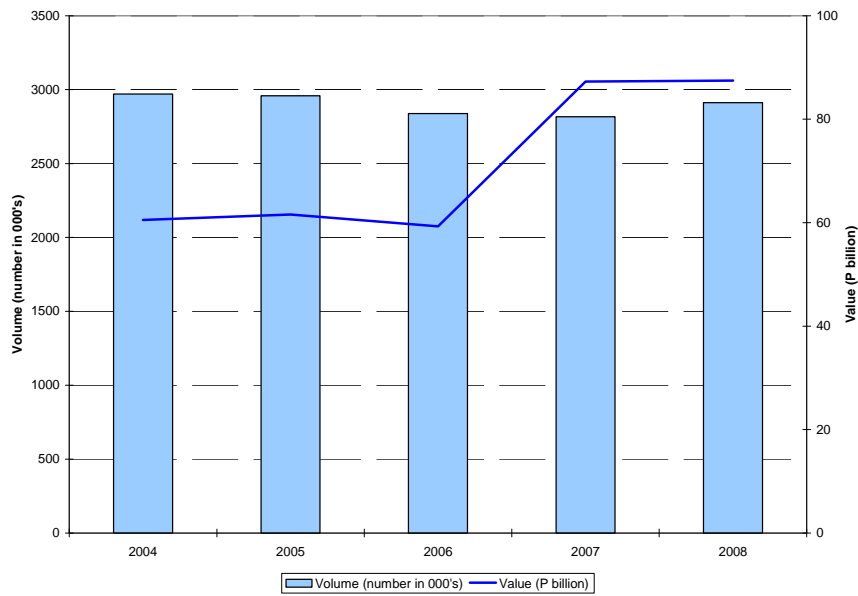
**2.2.3** The Bank continues to improve the collection and collation of payments system statistical information in liaison with other stakeholders. The new SADC Payments forum format which includes remittances statistics has been adopted. The Chart below reflects the volumes and values processed through BISS during 2008.

**Chart 1: BISS Transaction Volumes and Values from Jan '08 to Dec '08**

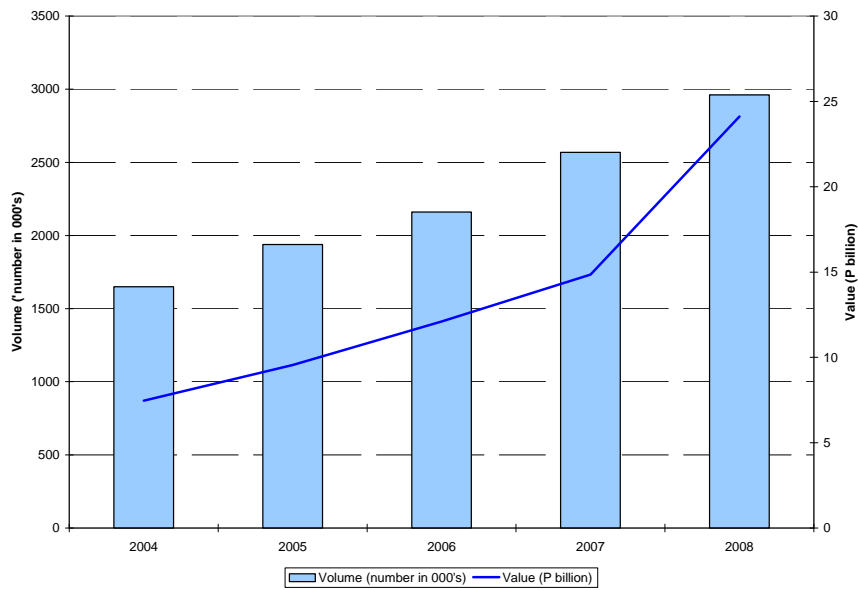


**2.2.4** The two Charts below show the five year annual trends of cheques and Electronic Funds Transfers (EFTs) transactions processed through the ECH. In terms of values, 5% of the BISS transactions are in fact, ECH transactions.

**Chart 2: Electronic Clearing House: Cheque Processing (2004-2008)**



**Chart 3: Electronic Clearing House: Electronic Funds Transfers (2004-2008)**



## **2.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

**2.3.1** Settlement of all payments streams is through the BISS, which was implemented in November 2006. BISS continues to gain more thrust in its progress and it is considered to be stable. During the year 2008, the transaction volumes showed a steady upward trend. There was however, a bit of volatility in terms of values, with the highest value recorded in March 2008 when there was an issuance of Government bonds.

**2.3.2** The review of the Bills of Exchange Act is at an advanced stage. The revised draft Act has been submitted to the Bank of Botswana (BoB) Legal Review Task Force for their input before submission to the Ministry of Finance and Development Planning. Other legislations are planned to be reviewed once work on the Bills of Exchange Act has been completed. The review is a continuous process that will assist in the identification of legislative issues that may require amendment in support of the NPS reform exercise.

**2.3.3** The third issue of the Botswana NPS Newsletter “Tsa Tuelano”, was published and circulated during 2008. The newsletter has reached stakeholders locally, regionally and internationally. Preparations for the publication of the fourth issue of the Newsletter are underway. The theme for the upcoming issue shall be “Provision of Settlement Services in Botswana”.

## **2.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

**2.4.1** The plan to introduce Cheque Imaging and Truncation System (CITS) gained momentum in 2008. All the stakeholders committed to the project and the Request for Information (RFI) template to get more

information is being finalised to be submitted to potential vendors before Request For Proposal (RFP) to facilitate the procurement process could be distributed.

**2.4.2** The plan to cap cheques to P500 000 has been agreed by all stakeholders. This is intended to curb fraudulent activities involved in cheque transactions and route high value payments to BISS. An implementation schedule has been developed and the effective date is October 1, 2009.

## **2.5 E-MONEY AND MOBILE BANKING INITIATIVES**

**2.5.1** An issues paper on e-money regulation has been developed and it is receiving attention of other relevant stakeholders for development of policy document. The Bank continues to receive enquiries in this area from potential service providers.

**2.5.2** There have been some enquiries regarding provision of money transfer services by Mobile Phone Service Operators. The current mobile based payment services offered by Mobile Phone Service Operators are minimal, these are mostly feedback information on the transactions undertaken by registered customers, and utility payments.

## **2.6 OVERSIGHT ISSUES**

**2.6.1** The Central Securities Depository (CSD) system started live operations during 2008. The CSD provides linkage between Botswana Stock Exchange (BSE) trading flows, their settlement bank, and the Bank of Botswana, where final settlement is undertaken on the BISS.

**2.6.2** The Bank has granted Smartswitch Botswana (Pty) Ltd full recognition as a payment system operator under the provisions of the NCSS Act, 2003, to provide a technological platform for use by the banks to access the unbanked and underbanked segments of the society.

**2.6.3** The NPS oversight framework and implementation guidelines are nearing finalisation. The implementation is expected during the second quarter of 2009, by way of oversight inspections of payments system operators in the country.

### **3. DR CONGO**

#### **3.1 INTRODUCTION**

The World Bank has hired Ernst & Young as consultant to study the economic feasibility, and functional design and technology to modernize the payment and the infrastructure of their treatments including interbank exchange systems, clearing and settlement of the DRC.

The study started in November 2008 and will end in September 2009 and it was agreed that work takes place in three main phases

Phase 1: Vision and Strategic formulation

Phase 2: Conceptual Framework design

Phase 3: Implementation, September 2009

#### **SUMMARY OF THE FEASIBILITY STUDY AND STRATEGIC VISION**

#### **3.2 OPERATIONAL ISSUES**

##### **State of the existing payments project in the DRC and National Payment System**

The analysis of the situation regarding payment in the Democratic Republic of Congo showed the following characteristics that must be taken into account in the draft National Payment System (NPS):



**3.2.1** The NPS should be effective in a highly dollarised economy:

- Payments made through banks are predominantly denominated in U.S. dollars (75 to 80% of operations based payment instruments). Only payments by check shall contain an opposite, namely that 65% of checks are interbank traded denominated in USD;
- The money supply in circulation and deposits are more than 90% in USD.

**3.2.2** Several points of attention require large developments to allow for expansion of systems and instruments of payment modern

- The prevalence of mass species (CDF and USD) for payments represent a very important for the Reserve Bank and the banks in terms of manufacturing, import and management of banknotes. Furthermore, there is a shortage of coins because of the difficulty of supply of certain provinces. We may assume that this shortage hinders the achievement of certain economic exchanges. This brake will be lifted in part by the introduction of instruments of payment reliable and secure;
- The very low rate of bank account(0.05% of the population) will be improved through action "policies" such as voluntary payment of money by officials;
- The territory is vast, 67 % of the population is rural and, almost 90% of the population lacks access to electricity, and less than 2% of the roads are paved and passable in all seasons. It follows that access to systems and instruments of payment will probably be limited at first to an urban population with access to electricity, which is where banks are located at present;
- The cost of using payment instruments in USD is charged between 0.3 and 1% of the amount of payment due to compensation through "correspondent banking" abroad. The implementation of a system of

settlement and clearing in USD in the DRC is expected to reduce the cost of interbank payments denominated in USD;

- The money market is currently very limited. This does not pose a major problem now because of the liquidity of most banks. However, the mechanisms Intra delivered daily by the CCB is expected to boost this market and to avoid blocking such settlement system by the lack of liquidity of a bank. Finally, the lack of securities market limited nature of the collateral provided by banks to secure the only payment instrument (BTR) regulations issued by the BCC.

### **3.2.3** Several positive factors are conducive to the modernization of the SNP:

The dynamism of the banking sector leading to the approval of 2 new banks every year and now by the growth of 80% between 2008 and 200th in the number of bank accounts;

- The growth of 118% between 2007 and 2008 the number of payments can be considered a doubling of the annual payments over the next 5 years;
- Operation under the BCC of clearing implement a regional multilateral clearing CDF with a computing system is a good basis to move towards electronic submission of transactions to compensate;
- At the same time, the share of card payments in total retail payments has increased from 29% in 2007 to 45% in 2008. This suggests a predominance of the card on all the instruments of retail payments. This dominance will be reinforced in case of inter-banking;
- The young population (under 15 years represent 47% of the population), the steady growth of the population (3% on average over recent years), an adequate level of literacy (67% of the population over 15 is literate and strong increases in adoption of information technology (an increase of 50% per year rate of penetration of telephony and internet) suggest a high capacity for uptake of innovative technologies (card, mobile payment, ...);

- The determination of the BCC and the authorities to modernize the SNP through the decree n ° 04/083 of 27 April 2004 which establishes the National Committee on Payment and Settlement (CNPR) which aims to follow the procedures for the project SNPs.

### **3.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

- These are the wholesale interbank payment amount (money market operations, fiscal or monetary policy.) or for which settlement payments on time is critical to the functioning of the banking sector, as the settlement of clearing balances.

The structural principles of the design of the target compensation system are:

- Establishment of a settlement system (RTGS) which manages a multi-single currency by bank where are grouped all its cash in that currency. It was originally planned to manage the Congolese Franc and U.S. dollar;
- At system startup the existing assets in the accounts of local banks in the agencies of the BCC will be repatriated on their settlement account with the CDF and local accounts will be closed;
- The system operates in real time, enabling banks to track the position of their settlement accounts. The BCC has a vision on all accounts;
- The CCB ensures the role of manager and supervisor of the RTGS;
- This system is intended for the processing of monetary policy and money market operations for the payment of large amounts (including withdrawals and payments trustees CDF) and operations that have a sense of urgency. In addition, the regulation system to compensate for the operations of mass;
- Rules for participation in the new system will be in the elaboration of the Convention to join the system;
- Regulations in USD obey a conventional framework and specific management rules:
- Limited choice in the types of operations eligible (no refinancing with the BCC and not fiduciary in USD)

A rate higher than the CDF operations

The equivalent "dollar" of reserves may not be used for the payment

Choices for the implementation of the RTGS system will be investigated in phase 2:

- A diagram of operation in "V" or "Y";
- Mechanisms to monitor and guarantee the payments made in USD.

### **3.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

The instruments currently used for retail payments are checks, transfers, negotiable instruments, payments and withdrawals by credit card (currently only private). The principles of structural design of the target compensation system are:

- Remote operations presented to the system of compensation and received it to avoid re. This means to give special attention to telecommunications links intra-bank and between banks and the system of tele-off;
- A multi-currency system (primarily USD and CDF);
- The interbank settlement dates that take into account the time of discharge and that in this way ensure the irrevocability of regulations;
- Regulation of compensation from one settlement account per currency for each bank, operated in the RTGS;
- Auto protection of the settlement of the compensation by CDF mechanisms may involve the BCC;
- Regulation of compensation made in foreign currency and guaranteed by specific mechanisms, but under supervision without intervention by the BCC (eg. Interbank Guarantee Fund, ...)
- Two options of system architecture tele-compensation are possible to take into account the constraints linked to the performance of telecommunications networks. They will be investigated in phase 2:

- a fully centralized architecture with a single connection with the bank system, which requires the existence with a level of high performance networking intrabank;
- An architecture providing decentralized access to the system (in cities with the highest concentration of bank branches) to banks to choose the organization of their salaries to compensate (centralized or decentralized) and to provide backup solutions in case of rupture of bonds.

It is also possible to scan the thumbnails of paper checks and negotiable instruments, and transmit the images formed on the drawee bank through the clearing network TV, so that it provides faster data facial enabling it to perform its checks. This device represents an obligation of standardization and an additional cost of equipment, but helps to speed up the flow and therefore reduce the period of settlement and release operations.

### **3.5 E-MONEY AND MOBILE BANKING INITIATIVES**

**The situation has led to the following observation:**

- Payment Card domestic and international banking is a relatively recent Congolese banks, which have so far opted for a private banking business. Payments by credit card and cash withdrawals from ATMs is not interchangeable at the moment;
- There is no legal framework governing the operations of credit card;
- A rapidly growing equipment and supply products carte menu;
- 99% of the cards are in USD.

A strategic option seems to be called, to which the majority of banks:

Establishment of a system of payment card interchange.

The organizing principles proposed to go in this direction are:

Promise product:

a) Banks in the interbank system

Each holder of an interbank card "will have access to services for cash withdrawals on ATMs (ATMs) and payment services on payment terminals

(TPE) of all member b. All ATMs or merchant bank affiliated with a member of the interbank system will accept all the bearers of "interbank card"

Financial virtuous

- b) Guarantee of payment of the holder's bank to the merchant's bank
  - c) Rules for the management of fraud and unpaid
  - d) Payment: Commission paid by the merchant's bank to the bank of the holder
- Withdrawal: Commission paid by the bank of the holder at the bank of DAB
  - Corpus regulatory contract;
  - Monitoring of specific authority.

Options for implementation will be investigated with the banks in phase 2, including:

- Compensation of the integrated card system télécompensation other instruments you provided in a dedicated system;
- Routing permits point to point, by routing server vs. by value added network;
- Technical interoperability: Cinematic single vs. multiple kinematics;
- Issuance of licenses, purchase payment and withdrawal: System vs. interbank system in each bank;
- Purchase, installation and maintenance of TPE, DAB and Maps: Central purchasing vs. procurement system in each bank. Promoting the use of instruments of payment

The recasting of the legal and regulatory framework for the functioning of existing payment instruments will increase the confidence of users - and paying creditors-in the use of scriptural instruments for the settlement of their transactions by protecting their rights and by the reduction of provisions considered too coercive.

Of recommendations were developed for each of these instruments.

A structuring principle is emerging, which aims to prevent banks and users against the misuse of payment instruments: the establishment of a central payment incidents in which:

- Operations in compensation are rejected automatically injected;
- Declarations of non-payment made by banks are stored;
- Access to this centralized information is given to banks and merchants.
- This requires the development of devices that enable secure identification of users and a management system, with a specific regulatory framework.

Infrastructure necessary to operate the National Payment System Target.

- The RTGS system and the compensation system will benefit from design to performance criteria, availability and security high.

That is why all the equipment will be based on modern technology and will be doubled to ensure uninterrupted operation in case of failure of the equipment. In addition, a center will take over from the production center roll in the event of failure or inaccessibility of it.

- In terms of telecommunications, banks will be connected to each system through a network "star", obeying strict rules of performance, availability and security, in which all connections are doubled.
- At first glance it appears that all three systems have compatible needs in telecommunications (including the topology) and that the construction of a multi use interbank would meet the different needs. This network will be able to support other services such as providing privileged access to the power risk, the central incidents of the payment or permit secure exchange.

Work to develop the conceptual framework refine the topology of the network, the need for availability, technological possibilities (use of fiber optics, WiMax, Swift...).

### **3.6 OVERSIGHT ISSUES**

Not yet

## 4. LESOTHO

### 4.1 INTRODUCTION

In an effort to transform the payment system into the modernised one that will conform to the international standards and best practice, the Central Bank of Lesotho (CBL) set up the Lesotho National Payment System (LNPS) Modernisation Project in 1999. The vision of the reform process is that “**By 2015 Lesotho will have a widely accessible, secure, reliable and efficient payment and settlement system. The system shall facilitate and support Lesotho’s development objectives**” as outlined in the vision document.

Currently there are two payment and settlement systems in Lesotho which are the RTGS system (Lesotho Wire) which is used for settlement of time critical and large value payments and Maseru Clearing and Settlement House for small value large volume payments and both systems are operated by CBL. This report is intended to review developments that took place between April 2008 and March 2009. Lesotho continues to undertake a number of initiatives intended to achieve the envisaged payment system.

Subsequent to live operation of Lesotho Wire (LSW), the next strategy in the LNPS modernization project as stipulated in the Vision Document is the implementation of Automated Clearing House (ACH) project. During 2008 CBL initiated the process of ACH implementation and the preparations for the project are currently at an advanced stage and Payment Association of Lesotho (PAL) which will be the management body of ACH is expected to be established soon.

### 4.2 LSW PERFORMANCE

The LSW continued to operate satisfactorily with four participants, which are the three commercial banks and CBL as a participant, for the period under review. During December 2008 the SADC Project team visited Lesotho to undertake an



assessment of the operations of Lesotho Wire and their findings concluded that the system was operating efficiently except for minor administrative issues that need to be addressed

The payment instructions processed by LSW for the period ended December 2008 stood at 16,904 transactions with the total value of M54.67 billion. From 2007 to 2008, the total volume and value of payments processed rose by 25.94% and 47.35% respectively. The Central Bank of Lesotho undertook 5,024 transactions in 2007 and 6,211 transactions in 2008 reflecting a hike of 23.63% while the value jumped by 39.21%. The volume of participant credit<sup>1</sup> payments was 1,983 in 2007 and increased to 2,271 in 2008, whilst the value for those payments stood at M11.3 billion and M15.21 billion respectively. In 2007 the participant debits<sup>2</sup> payments volume was 1,992 and it rose by only 4.99% to 2,088 in 2008. Commercial banks made payments totaling 6,415 in 2007 which fell slightly by 1.26% to 6,334 in 2008. Despite the minor decrease in number of transactions, their value recognisably increased by 92.82% indicating that payments were of high value. The analysis in Table 1 below provides a comparative analysis of LSW performance for 2007 and 2008.

---

<sup>1</sup> Participant Credits are transactions initiated by CBL to directly credit commercial banks accounts held at CBL.

<sup>2</sup> Participant Debit is transactions initiated by CBL to directly debit commercial banks accounts held at CBL.

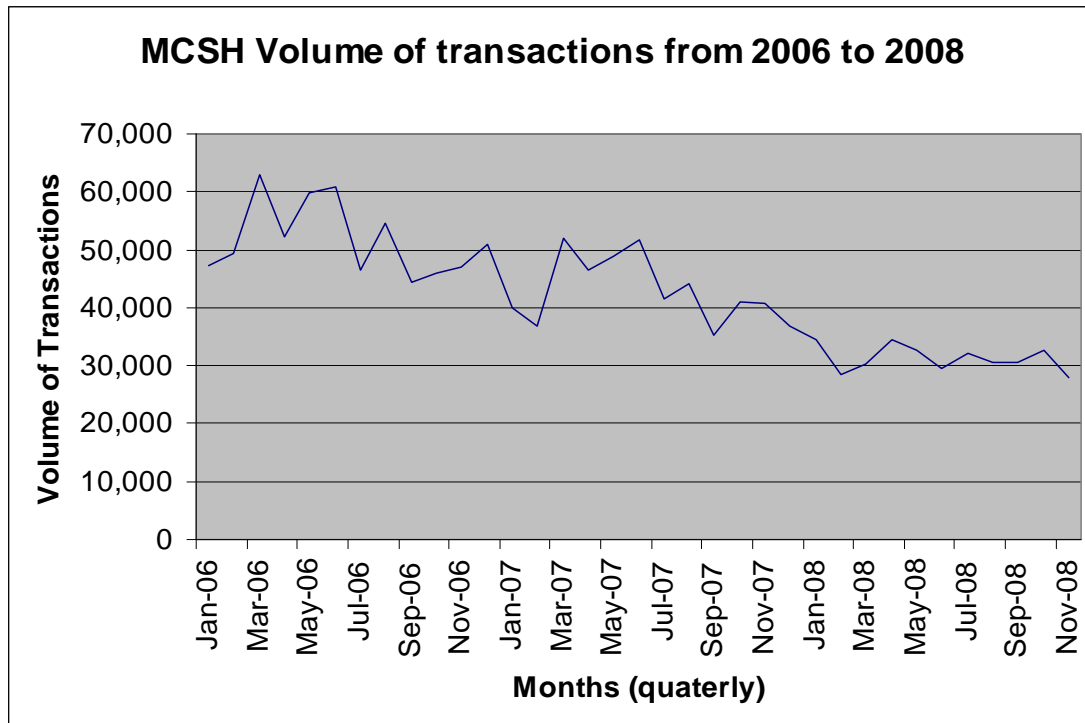
**Table 1**

Banks	2007		2008		Percentage increase/decrease	
	Volume	Value (M billion)	Volume	Value (M billion)	Volume %	Value %
<u>Central Bank</u>	5,024	3.8	6,211	5.29	+23.63%	+39.21%
Participants credits	1,983	11.3	2,271	15.21	+14.52%	+34.60%
Participants debits	1,992	13.5	2088	17.91	+4.99%	+32.67%
Commercial banks	6,415	8.5	6,334	16.39	-1.26%	+92.82%
<b>Total</b>	<b><u>13,422</u></b>	<b><u>37.1</u></b>	<b><u>16,904</u></b>	<b><u>54.67</u></b>	<b><u>+25.94%</u></b>	<b><u>+47.35%</u></b>

#### 4.2.1 Maseru Clearing and Settlement House (MCSH) Performance

This is another systemically important payment system, which has rules and procedures to be adhered to. MCSH is for clearance of cheques and other small retail payments. The introduction of LSW has resulted in a downward spiral in a number of transactions processed by MCSH. Review of the volume of transactions processed pre and post implementation of LSW reveals that the cheque payments are steadily declining. Overall decrease in volume of transactions processed by MCSH since the implementation of LSW system was 39% as at end of 2008. This is evidenced by the figure 1 below which shows the trend of transactions processed by MCSH since January 2006 to December 2008

**Figure 1**



### **4.3 SETTLEMENT SYSTEM**

Settlement occurs in the Lesotho Wire at CBL which hosts the commercial banks' settlement accounts. The LSW also settles the net settlement position from the Maseru Clearing and Settlement House as well as large value transfers between the participants. CBL participates on behalf of the Government of Lesotho as well as processing its own payments and it is the key user of the system as Government opts for more electronic means of payment. LSW also process the domestic / local leg of the foreign transfers for the commercial banks. Preparations are underway to interface Lesotho Wire system with other systems such as MIDAS (CBL general ledger), the Integrated Financial Management Systems for Government of Lesotho Accounting (IFMIS) system and the anticipated Automated Clearing House. Lesotho Wire suppliers (Montran

Corporation) have confirmed that this state-of-art system has capacity to interface with the afore-mentioned operating systems.

#### **4.4 CURRENT DEVELOPMENTS**

##### **4.4.1 Automated Clearing House (ACH)**

Subsequent to live operation of LSW, the next strategy in the LNPS modernization project as stipulated in the Vision Document is the implementation of the ACH project. ACH is aimed at catering for retail or small value, high volume payments, as the LSW system process large value payments. There are three types of payment instruments that will be cleared through ACH namely: cheques, Electronic Fund Transfers (EFTs) and card transactions (debit and credit cards). Implementation of ACH is expected to improve commercial activity through the increased speed at which funds will be transferred by reducing the clearing cycle.

Preparations are at an advanced stage for the implementation of the ACH project and the service provider has already been identified as Bankserv which is an ACH for South Africa. The project is funded by Millennium Challenge Corporation (MCC) of the United States of America, which will bear the annual costs chargeable by Bankserv for the first three years of ACH operation. The CBL is the driver of the project and played a key role in price negotiation with Bankserv. According to the plan, it is expected that introduction of (cheques and EFTs) will be finalised sometime in 2010. Bankserv offer entails minimal infrastructure costs thus it is expected that implementation will be expedited and is expected to be cost effective for both the Central Bank of Lesotho and the commercial banks.

#### **4.4.2 E-Money and mobile banking initiatives**

Beside the ACH implementation project, the LNPS modernisation project using the Post Bank has intended to implement the smart card technology. This will be used with the point of sale devices that will be installed at Post Bank offices all over the country. Internet banking is already employed by all three commercial banks in Lesotho. The rate of usage of this service depends on whether people have access to the internet or not. In Lesotho most individuals currently have no access to internet. However internet is bit by bit becoming easy for people to access, therefore it is apparent that the internet banking will finally be largely adopted by most individuals and companies.

#### **4.4.3 Payment Association of Lesotho (PAL)**

Subsequent to a recommendation made by a consultant who designed business and implementation plans for the anticipated ACH, the Central Bank of Lesotho together with the commercial banks including Lesotho Post Bank embarked on establishment of Payment Association of Lesotho (PAL), a not for profit company jointly owned by banks and CBL. The mission of PAL is to provide safe and sound payment system services to Lesotho and to drive the modernisation of payment system to finality. PAL will be the payments systems management body and will have an Operations Manager who will be responsible for daily operations of PAL. PAL will also be responsible for general administration of the payment streams that will be incorporated into the ACH as well as designing of their rules and procedures. PAL shall be governed by a Board of Directors made of the Central Bank of Lesotho (who shall assume chairmanship of PAL) and one representative from each commercial bank and one as well from the Lesotho Postbank. The process of establishing PAL is anticipated to be completed at nearest future and the Operations Manager is planned to be engaged sometime in July 2009.

#### **4.4.4 Legal Framework**

The National Payment System (NPS) Bill was drafted through IMF Technical assistance in 2006 and has since been passed to Law Office for drafting en route to Parliament for promulgation. A Policy paper accompanying the National Payment systems (NPS) Bill was also prepared and shall soon be submitted to the Minister of Finance's office for approval. It is likely that the Bill will only be passed to Parliament towards end of 2009. The Central Bank of Lesotho places the highest priority on the enactment of this NPS Bill and CBL is doing its best to get the Bill promulgated. Currently, the Bank uses legally binding Rules and Procedures to operate the two systemically important payment systems (LSW and Maseru Clearing and Settlement House). Participants in the afore-mentioned systems have duly signed these Rules and Procedures and have confirmed their commitment to adhere to them.

#### **4.5 OVERSIGHT ISSUES**

Oversight of payment systems is one of key functions and the Bank's responsibility for the stability of the financial system as a whole. The oversight framework has been drafted, reviewed with the assistance of IMF consultant, was presented to senior Management and it is awaiting final approval. This framework will form the basis of the Bank's oversight function. As part of the framework, a quarterly statistical return has been developed and shall be used to collect data which will be used to monitor developments.

The Oversight section undertook a comprehensive self assessment of the LSW to determine its compliance with the Core Principles for systemically important payment systems, National Payment System Rules and regulations and International Standards. It was concluded that the system largely complies with the Core Principles, International Standards, rules and regulations, safe from the fact that the National Payment System Bill has not been enacted.

## **5. MALAWI**

### **5.1 INTRODUCTION**

During the period April 2008 to March 2009, the Reserve Bank of Malawi (RBM) carried out a number of activities aimed at strengthening the operations of the National Payment System (NPS). Prominent activities during the period under review include the revision of the NPS Vision and Strategy Framework, implementation of Oversight Policy, and the establishment of the Electronic Banking (E-Banking) Task Force and the Contingency Committee on Financial Infrastructure.

The Reserve Bank of Malawi (RBM) continued to play a leading role in all payment systems activities and ensured that the National Payments Council (NPC) meetings were regular and well coordinated.

### **5.2 OPERATIONAL ISSUES**

The NPC National Executive Committee endorsed the 2009-2013 NPS Vision and Strategy Framework Document in December 2008. The revised NPS Vision and Strategy focuses on the attainment of a safe, efficient and harmonised NPS that effectively contributes to Malawi's financial stability. In order to attain this objective, the RBM and the relevant stakeholders will implement measures designed to make various systems interoperable and create an enabling environment in which non-cash payment instruments gain increasing acceptability.

The NPC realises that while Malawi has made progress in modernising the NPS, financial shocks may unexpectedly arise and spread quickly through the modernised financial infrastructure. In order to prevent financial crises either from happening or causing ripple effects, a Contingency Committee on Financial

Infrastructure was established under the umbrella of the NPC. The Committee is chaired by the RBM and its primary task is to coordinate disaster recovery and crisis management issues. The task of the Committee does not however conflict with the oversight role of the RBM nor does it replace each institution's independent responsibility for ensuring its own business and disaster recovery plans.

### **5.3 SETTLEMENT SYSTEM DEVELOPMENTS AND SYSTEM PROJECTS**

During the period under review, Malawi's settlement system, formerly known as perago:rtgs, was named MITASS – short for Malawi Inter-bank Transfers and Settlement System. The Liquidity Optimising Mechanism (LOM) in MITASS was also activated in December 2008. Activation of LOM facility provides an opportunity for banks to process transactions either through the LOM facility or the Real Time Mechanism (RTM).

MITASS throughput for the period under review amounted to MWK1.73 trillion (USD 12.28 billion)<sup>3</sup> as opposed to MWK1.49 trillion (USD 10.65 billion)<sup>4</sup> recorded in the previous review period, representing a 15 percent increase. Volume of transactions, on the other hand, decreased by 8 percent from 83,815 recorded in 2007 to 77,130 in 2008.

In terms of system utilisation, the value of single Funds Settlement Instructions (FSIs) constituted 78 percent of MITASS Throughput while cheques and smart cards respectively accounted for 22 percent and 0.07 percent. A similar pattern was also observed in the previous review period.

---

<sup>3</sup> Based on end-December 2008 middle exchange rate of MWK140.5597 to USD1.00

<sup>4</sup> Based on end-December 2007 middle exchange rate of MWK140.3161 to USD1.00



FDH Bank joined the settlement system in September 2008, bringing the total membership to thirteen (13) including the RBM. In November 2008, the RBM also received an application by the International Commercial Bank (ICB) Limited for membership to MITASS. Meanwhile, arrangements are underway to connect the new applicant to the settlement system.

Although the settlement system relies on telecommunication infrastructure, power and other supporting technical resources, the RBM recognises the critical role that human resources play in MITASS operations. In this regard, the RBM annually conducts MITASS Training for its officers and commercial banks' staff. The objective of the annual training is to equip participants with the necessary skills so that operational risks resulting from human errors are minimised. The training for the period under review was conducted in April and June 2008 and fifty-eight (58) users attended the training.

#### **5.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

The operation of ATMs and POS devices in Malawi is basically on a stand-alone basis. This therefore means that card holders are restricted to ATM services of their banks. Consequently, access to ATMs of other banks is only possible if clients incur extra costs associated with the possession of more than one brand of payment cards.

In order to overcome the bottlenecks associated with non-interoperability of ATMs and POS devices, the NPC established a Task Force to interlink ATMs and POS devices (whether smart card enabled or not). The Task Force has already identified potential system suppliers and a final selection of the preferred vendor is expected to be done during the first quarter of 2009. The Interoperability Project will therefore enable clients to access their accounts through ATMs of other banks.

## 5.5 E-MONEY AND MOBILE BANKING INITIATIVES

While developments in mobile technology have eased access to financial services by economic agents, the same pose regulatory challenges to central banks. Despite the challenges, the RBM as a payment systems regulator and catalyst works towards promoting rather than inhibiting the usage of electronic based payment instruments. In order to ensure the smooth functioning of electronic payment products, the RBM established a Task Force on E-Banking whose primary objective is to study the various electronic payment instruments available on the market with a special emphasis on mobile payments. At the end of the study, the Task Force is expected to formulate appropriate policy guidelines which will guide market participants. The study is undertaken amid the absence of an appropriate Act that recognises the legal validity of electronic based payment products. The guidelines will therefore be issued based on the existing legislation.

In order to build capacity, some of the members of the E-Banking Task Force will be exposed to E-banking related short courses and conferences. The capacity building initiative will also involve attachments to best practicing institutions in E-Banking. In view of the complexity of electronic banking issues, the Task Force is comprised of senior and experienced officers drawn from the following RBM departments: Banking and Payment Systems, Information Communication and Technology, Exchange Control and Debt Management, Bank Supervision, Internal Audit and Bank Secretary.

## 5.6 OVERSIGHT ISSUES

In conformity with the BIS Core Principles for Systemically Important Payment Systems **Core Principle IX** and **Responsibility A**, the RBM disclosed its NPS Oversight Policy and the MITASS Access Criteria through the RBM website ([www.rbm.mw](http://www.rbm.mw)) in January 2008.. Core Principle IX states that *the system should*

*have objective and publicly disclosed criteria for participation, which permits fair and open access. Responsibility A, on the other hand, states that the central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.*

In addition to public disclosure, the RBM introduced on-site oversight based on the SADC Payment Systems On-site Oversight Framework. The exercise involved bilateral meetings between RBM's Payment Systems Division and MITASS member institutions. During the meetings, participant profiles and potential risks in MITASS were discussed and implementation of corrective measures was agreed by both parties. The micro-oversight is in addition to the macro (off-site) oversight.

## **5.7 CONCLUSION**

The RBM continued to play a leadership role in payment systems reform initiatives during the period under review. Public disclosure of the NPS Oversight Policy and MITASS Access Criteria is in line with the BIS Core Principles for Systemically Important Payment Systems.

Following the introduction of on-site oversight, the RBM is building capacity to efficiently execute its payment systems oversight function especially in areas of E-banking.

## **6. MAURITIUS**

### **6.1 INTRODUCTION**

This report summarises the activities carried out by the Bank of Mauritius in the Payment Systems from April 2008 to March 2009. During this period a number of strategic decisions were taken to shape the future landscape of payments in Mauritius. The core RTGS application which was in operation for the past nine years has been replaced in order to provide a secured and robust national payments architecture. The new application will also be used to participate in the COMESA Regional Payment and Settlement System (REPSS) where the Bank of Mauritius will act as the settlement bank.

### **6.2 OPERATIONAL ISSUES**

The Mauritius Automated Clearing and Settlement System (MACSS) which functions on the principle of Real Time Gross Settlement System (RTGS) is at the centre of all payment and settlement transactions in the country. It is closely coupled with the Port Louis Automated Clearing House (PLACH) where cheque transactions are cleared and net amounts are presented to the MACSS for settlement. Both systems are of systemic importance.

In 2008, payment operations on the market were smooth and all payment instructions were settled within the same value date. Participating banks were closely monitored to ensure that their systems were available and contingency plans were reported as per MACSS rules

At the central bank, three incidents of critical nature were registered on MACSS leading to disruptions in the operations participating banks. In recognition of the impact of such operational risks in the payment systems, the Bank took steps to ensure that the system parameters on the MACSS were continuously monitored.

Participating banks were also kept abreast of all changes and periods of critical activity were planned in advance.

## **6.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

### **6.3.1 Mauritius Automated Clearing and Settlement System**

The Bank also took strategic decisions to ensure that in the long term its statutory obligations to provide stable payment system infrastructure are maintained.

The MACSS, which is operational since the year 2000 has fulfilled its objectives of containing systemic risks in the payment system by providing an infrastructure for fund transfer in real time. Pressing demands of the growing financial sector and increasing cross-border transactions posed new and complex challenges to the current payment system infrastructure. The need for a more dynamic, flexible and business-friendly payment system capable of better resisting systemic shocks and providing for international exposure was increasingly felt. The Bank decided to replace the existing MACCS application with a new one which is based on best international practice and is built on a more resilient architecture, supports multi-currency transactions, has extended settlement windows and provides for low cost messages. The new core application is operational since 14 January 2009.

### **6.3.2 Cheque Truncation**

Currently, cheques are cleared electronically by the exchange of files containing MICR code line data. The initial plan of the Bank was to develop an application to enable truncation through exchange of cheque images on the existing infrastructure. However, due to difficulties in meeting the deadlines and the desire of the banking community to adopt best practice in the industry, it was decided in May 2008 to shelve the initial approach and purchase a Cheque

Truncation solution. The Bank organised an international competitive bidding process in June 2008 where suitably qualified vendors were invited to bid for the Cheque Truncation System project.

#### **6.4 CROSS BORDER PAYMENT INITIATIVES**

The Bank of Mauritius is participating in the Regional Payment System and Settlement (REPSS) which is an initiative of the COMESA clearing house. On implementation, the REPSS will provide an automated clearing and settlement facility for cross border payments between member states of the COMESA. The Bank of Mauritius will be the Settlement Bank in the REPSS and central banks of COMESA member states have been invited to open accounts in EURO and USD, the two settlement currencies, with the Bank of Mauritius.

The new MACSS application will be used to carry out Settlement Bank functions. Local commercial banks will therefore benefit from an integrated platform which will facilitate local as well as international payments. The system has undergone several pilot tests and is expected to go live in May 2009.

#### **6.5 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

Building on the positive awareness campaign on the public's rights towards commercial bank products such as loans, deposits, mortgages and credit cards, the Bank has published on its website, the complete list of product prices for each commercial bank so that the public can make decisions.

#### **6.6 E-MONEY AND MOBILE INITIATIVES**

As a regulator, the Bank of Mauritius has issued guidelines to create an environment conducive for electronic and mobile payments while protecting the public from unfair practices and fraud.

In order to increase their customer base, reduce costs and enhance their customer service banks are encouraging their customers to use electronic means of payments. As at December 2008, there were over 1.1 million cards in circulation, representing roughly 1.5 cards per adult population. Only one bank has moved to chip based credit and debit cards for enhanced security.

Two banks provide mobile banking facilities to the public with services such as mobile top up and account balance checks. Mobile service providers now allow airtime transfer between mobile users. However, advanced services such as purchase of goods by encashment of airtime is not available.

Internet Banking is progressively being opted for by customers to conduct banking transactions due to its convenience and cost effectiveness. The number of internet banking customers increased significantly over the last year reaching 62,970 by end December 2008. On the other hand, the number of customers using phone banking facilities increased marginally from 42,547 in June 2007 to 43,515 in December 2008.

## **6.7 OVERSIGHT ISSUES**

The Bank of Mauritius continued its ongoing oversight functions which consist in

1. Collection of information from daily reports on the movement of liquidity among participants of the MACSS and data from other sources,
2. Analysis of the information, and
3. Initiation of actions as appropriate

In order to ensure continued operations on the MACSS, participants are required to report all disaster recovery and business continuity plans to the Bank of Mauritius on a yearly basis. The MACSS participant procedures also require participants to report technical or operational problems that prevent banks from processing payments.

## 7. MOZAMBIQUE

### 7.1 INTRODUCTION AND PROJECT MANAGEMENT ISSUES

The National Payment System (NPS) Project development and implementation is guided by the Strategic Framework Development Plan designed in 2000 and reviewed over time. The strategic framework is the major tool and guidance for all the activities in view to achieve the defined and underlined strategic objectives.

The Payment System strategic framework plan forms one of the pillars that guide the overall central bank triennial plan for the years 2008 – 2010.

### 7.2 OPERATIONAL ISSUES

The National Payment System under restructuring is a set of payment and clearing sub-systems, such as:

- a) MICR –E13B automated clearing of cheques and other related debit and credit payment instruments;
- b) National inter-banking debit cards clearing system under the management of a private company – INTERBANCOS, whose product is Ponto 24.
- c) Visa national clearing system;
- d) Government electronic payment system
- e) Money market system, both domestic and forex.
- f) Stock exchange system

Under this payment, trading and clearing systems, all of them automated, there is a Settlement Module built over the SAP – ERP system, the central bank system, designated by **MeticalNet**, an automated.



### **7.3 SETTLEMENT SYSTEM DEVELOPMENT AND PROJECTS**

Although Banco de Moçambique has formed a part of the SADC Suitable Settlement System, which formed a model to be adopted by all the subscribing countries, the Bank has adopted a different strategy with regard to the implementation of the project, given its uniqueness situation in the region. Mozambique had already automated most of its payments streams/subsystems. All it needed was to get all of them under one settlement system which is reliable, sound and robust.

In this regard, the Bank adopted an “in house development” strategy to build up the Real Time Gross Settlement (RTGS), using internal resources.

In the period under review the bank has finalized the software development and has performed the necessary testing for live production, which is expected to go live early this Quarter, pending some few adjustments.

At the business and commercial side the full regulatory and normative, as well as procedures and operating rules as well as pricing methodology package has been approved by the board of the Bank.

Further more, at the macro level, the National Payment System Act has enacted on 28 February 2008, with reference 02/2008.

Under this Act, the Banco de Moçambique is now empowered to Regulate, Oversee and Drive all the process aimed at minimizing payment system risks with particular emphasis to systemic risk.

## **7.4 RETAIL SYSTEM DEVELOPMENT AND PROJECTS**

The bank domain in the NPS strategic framework is the systemic risk mitigation and containment, thereby putting in place and or developing system that is appropriate for the effect, that is, the Real Time Gross Settlement System.

Retail payment systems and banking are left to the domain of commercial banks. In effect, there are two countrywide retail payment systems:

- a) National inter-banking debit cards clearing systems, managed by a consortium of commercial banks and other private companies, whose product is Ponto 24 and;
- b) Visa Net National Settlement System (VisaNSS);

While the Inter-bancos Debit Cards clearing system is for domestic cards, Visa Net Settlement System accounts for both debit and credit cards and also for local and international transactions.

Recently has been developed by our IT Department together with the commercial banks the Credit Interbank Electronic Funds Transfer System, running under the MeticalNet platform in the Banco de Moçambique.

It is underway within the Currency and Payment System Department as well as the IT Department the business, commercial and technical aspects of the future Interbank Direct Debit Payment System, expected to go live by the 2<sup>nd</sup> half of the year.

The Banco de Moçambique has launched an international bid to hire a consultant which will be in charge for all process that will lead to the establishment of an Automated Clearing House.

## **7.5 E-MONEY AND MOBILE BANKING INITIATIVES.**

Some individual banks do provide some limited mobile services for statements querying and mobile phones air time recharging. Though, initiatives in this field are still in a very incipient phase.

## **7.6 OVERSIGHT ISSUES**

The Electronic Clearing of Cheques (CEL) is the systemically important payment systems for Mozambique. CEL caters for both retail and large value inter-bank settlement transactions and it has been live countrywide since November 2003.

The Banco de Moçambique strives to ensure that risks associated with payment and settlement systems are in acceptable degree. In this regard, a new Interbank Clearing and Settlement Regulation was approved, effective August 2005, to reflect changes that have occurred in the environment of cheque processing since the launch of CEL in 2003. It defines clearly the rights and obligations of all the participants. In order to minimize the credit risk to the participants a clause of the loss shearing agreement has been introduced in the Regulation governing the CEL. Likely, the new version brought down the clearing cycle from 72 hours to 24 hours.

The liquidity risk in the National Payment System is being managed using analytical procedures including ongoing monitoring and analysis of daily balances of the participants in order to have early warnings of eventual liquidity risks that participants could pose to the system.

Efforts are being made in order to establish an Oversight Unit within the Department. This will call for maintenance of NPS data base to allow for cross analytical of the variables as well as their tendencies.

## **8. NAMIBIA**

### **8.1 INTRODUCTION**

This report provides an overview of the Bank of Namibia's activities aimed at promoting a safe and efficient national payment system in Namibia. The report also highlights activities, which the Bank initiated on payment system reform over the period of April 2008 to March 2009.

### **8.2 OPERATIONAL ISSUES**

Operational vulnerabilities contribute various risks to payment systems which may lead to disruptions that affect the stability of financial markets, and undermine public confidence. The Bank of Namibia, as part of its core activities, continues to place emphasis on the operational robustness, security, timeliness and contingency planning for systemically important payment systems (SIPS) coupled with the ongoing requirement to localize core banking systems to satisfy the needs of Namibia.

The overall assessment is that the systems comprising the National Payment Systems in Namibia have performed satisfactorily in 2008. All payment systems showed resilience and proved to be sufficiently robust to enable both high value and retail payment transactions to be processed without causing any major disruptions.

### **8.3 SETTLEMENT SYSTEMS DEVELOPMENT**

In 2008, the Bank of Namibia continued to provide real-time interbank settlement service to the Namibian banking institutions through NISS. All inter-bank high-value payments above N\$ 5 million are made through NISS. NISS also settled values originating from retail payment systems (EFT, Cheque and Card)

operated by Namclear. With the establishment of NAMSWITCH in 2008, the first ATM card transactions were settled in NISS on 21 April 2008, followed by POS transactions on 17 November 2008. The Bank of Namibia continues to provide sufficient collateralized liquidity to the participants through the intraday and overnight repo facilities in NISS.

Currently, the PCH batches' settlement obligations are received from Namclear at 17h30, 18h30 and 20h30 respectively for EFT, CARD and CLC. Therefore, final settlement in NISS for retail PCH batches takes place late in the evening when the inter-bank market is closed, therefore precluding participants entering the inter-bank market should they be short at settlement time and resorting to the automatic overnight repo facility provided by the Bank. This is not a position that is considered sustainable. Therefore, the Bank issued a Directive in terms of Payment System Management Act, 18 of 2003, outlining the implementation time-table for early-square-off in NISS. The effective implementation date for early square-off in NISS will be 31 December 2009.

It has been now six years since the Bank implemented NISS. The hardware on which NISS application currently is running has now become obsolete. The Bank has already initiated a project that will lead to the replacement of current hardware and upgrading of NISS to new version. The new version offers enhancements and new functionality to banking institutions and the Bank as a settlement provider.

In 2008, high priority was placed on business continuity planning to ensure the uninterrupted availability of NISS. The Bank has successfully conducted Disaster Recovery (DR) test on 26 September 2008 for NISS, where NISS was operated for a full business day from the DR site.

Consistent with its core role, the NISS availability remained very high in 2008 and is broadly in line with other comparable large value payment systems in other

countries. The Bank is confident that the NISS remains a safe, robust and adaptable system that meets international standards.

## **8.4 RETAIL SYSTEMS DEVELOPMENTS AND PROJECTS**

### **8.4.1 NAMSWITCH Project**

Previously, the switching of Namibian domestic card transactions was performed by SASWITCH as an integral part of the South African clearing and settlement process. Although this arrangement provided a relatively efficient and effective payment service to Namibian banking industry, it denied Namibia the opportunity to build domestic capacity. More importantly, it introduces a distorted risk profile for both Namibia and South Africa.

NAMSWITCH was implemented in a phased approach because of the nature of payments, facilities, and the complexity of systems that are involved. The Automated Teller Machine (ATM) solution went live on 21 April 2008 and the Point-of-Sale (POS) was rolled out on 16 November 2008. With the implementation of NAMSWITCH, the Namibian banking industry has achieved the objective of taking the Namibian inter-bank domestic card transactions out of the South African payment system so that they are cleared locally and settled in Namibia Inter-bank Settlement System (NISS) in order to manage and control domestic exposures and risks.

### **8.4.2 Implementation of 5 day national cheque clearing cycle**

On 1 April 2008, the Namibian banking industry has implemented a five-day cheque clearing cycle for domestic cheques. This means that upon depositing a cheque banking customers will have access to their funds on their bank accounts within five working days anywhere in the country. This is a major improvement from the previous system where, in more remote areas, the cycle could take in

excess of ten days. All commercial banks have implemented the improved clearing system, operational and infrastructure changes and have re-aligned their clearing and settlement arrangements and business processes to facilitate the reduction of the cheque clearing cycle to five days.

As part of the five-day clearing cycle implementation, the banking industry has also contracted a single courier service effective as from 1 April 2008, which will ensure that cheques are delivered from remote branches to Windhoek within one day for processing.

## **8.5 OVERSIGHT ISSUES**

Effective *payment system oversight* is an essential ingredient in achieving the public policy objective relating to the safety and efficiency of the National Payment System (NPS). In addition, effective oversight will ensure financial and technical integrity of the NPS, including its overall robustness against systemic shocks together with its overall, efficiency, accessibility and cost effectiveness through rules, standards, monitoring, analyses and enforcement.

In terms of the Payment System Management Act, 2003 (Act No. 18 of 2003) the Bank has the powers to oversee, inspect and monitor the national payment system, the operation of the Payments Association of Namibia (PAN), system participants and service providers. The Bank has carried out a number of oversight activities aimed at promoting a safe and efficient NPS.

As part of payment system oversight, the Bank during August 2008, undertook *on-site inspection to Namclear* in the clearing and settlement environment. The on-site oversight visits generally entailed assessment of Namclear's systems, including business continuity planning (BCP) and disaster recovery (DR) arrangements; understanding of the day-to-day operations and the level of customer support, and to verify that service level agreements (SLAs) and



assessment of the safety, efficiency of Namclear's clearing operations and general operational capability. The analysis and finding of the on-site inspection concludes that, Namclear's day-to-day operation and operational performance appears to be sound. With fully operational DRP/BCP facility in place Namclear's operational risk has been significantly mitigated. Generally Namclear staff has the necessary skills and experience. Most of Namclear staff are recruited from the banking institutions and have many years of practical experience within clearing and settlement environment. The financial aspects of Namclear appear sound. Namclear revenue is derived from the charges levied on the transactions processed and is sensitive to the volume decline. Although the volumes in Cheque are declining, Namclear is achieving volume increase in Electronic Funds Transfer (EFT) payment stream, which is the direct result of the EFT Directive issued by the Bank in December 2007. With implementation of Namswitch on 21 April 2008, marginal increase in volume processed is envisaged.

Since its inception in 2005, the Payments Association of Namibia (PAN) has been faced with many challenges which hindered its operational progress, roles and responsibilities as envisaged in terms of the Payment System Management Act, 2003. The current PAN management and working committees consist of staff employed on full-time basis at respective banks, making it difficult for them to devote enough time and attention to the activities of PAN. Lack of funds and proper operational budget was an additional obstacle faced by PAN. Therefore in 2008, the Bank and the Bankers Association of Namibia agreed on interim arrangements aimed to ensure PAN fulfill its mandate as envisaged in terms of the Payment System Management Act, 2003 speedily and effectively. As an interim arrangement, the Bank has taken over the Chairpersonship and Secretariat function of PAN. Also the Bank has seconded an employee on full-time basis to PAN office which now located at Bank of Namibia. The Bank and the banking institutions are contributing equally to PAN's operational budget.

With the implementation of interim arrangements the Bank will ensure efficient functioning of PAN as envisaged in the Payment System Management Act, 2003

With the implementation of NPS reform project, it was realized that shared IT infrastructure and banking systems with parent companies in South Africa introduced constraints contributing to operational and systemic risks for banking institutions operating in the Namibian NPS. Non-complying banking institutions are expected to comply by 31 December 2009. On 11 August 2008, the Bank issued a Determination on the *localization of core banking systems*. The Determination states the requirements for the localization of banking institutions' core banking systems in Namibia. Localization of all fault tolerant core banking systems will facilitate the Bank's access to accounting and other banking records. In addition, it will contribute to ensuring the efficiency and safety of the National Payment System, support effective payment system oversight and banking supervision.

## **8.6 E-MONEY AND MOBILE BANKING INITIATIVES**

During August 2008, the Bank conducted an assessment of NamPost *smartcard* scheme in terms of the Bank's Determination (PSD 1) on issuing of payment instruments. The assessment found that the smart card scheme is well manage in terms of operational and financial risks. The scheme overall meet the minimum requirements set out in the Determination. By end of 2008, Nam Post Limited issued 110,844 smart cards with total electronic money value of N\$ 213,115,389. The smart cards are used to undertake retail transactions at various retailers across the country. In 2008, a total of 4,000 transactions were captured at 554 POS terminals with total value of N\$ 422 million. However, the interoperability of these POS devices with those of the banking institutions remains a concern for the Bank.

No new developments has taken place in mobile banking since the launch of Bank Windhoek's mobile banking product in December 2006 and First National Bank of Namibia mobile banking service in April 2007. The Bank's view at this point is to closely monitor developments in mobile payment technology. The authorization to roll-out mobile payment mechanism will be regulated through the current determination on payment instrument issued in September 2007.

## **9. SOUTH AFRICA**

### **9.1 INTRODUCTION**

This report is a summary of payment-related initiatives of the South African Reserve Bank (the Bank) from April 2008 to March 2009.

South African payment-related initiatives during the period included the oversight of the payment system, upgrades to the real-time gross settlement (SAMOS) system, and the continued monitoring of the e-money and mobile banking initiatives.

The report focuses on these issues.

### **9.2 OPERATIONAL ISSUES**

A payment stream was implemented to provide participants with near real-time settlement of retail payments. Multiple batches of the real-time clearing (RTC) stream are submitted for settlement during the business day. The batches settle transactions that would have otherwise been settled through the electronic funds transfer (EFT) mechanism after the close of normal banking business.

The growth in the value of EFT transactions has resulted in a request to the payment clearing-house (PCH) operator by settlement banks to introduce intra day settlement. The request is for the PCH operator to send multiple EFT batches for settlement at predetermined times during the business day.

### **9.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

The implementation of SAMOS version 6.4 is scheduled for the second quarter of 2008. Enhancements are being made to provide for an ISIN number to uniquely

identify financial instruments. This will allow for the settlement of money market instruments that are traded on a payment-versus-payment (PVP) basis.

#### **9.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

The growth in the value of payments settled in the SAMOS system for the year 2008, over the value settled in 2007, was 23 per cent. The increase for Real-time Line settlement was 25 percent. The Real-time Line settles 93 per cent of total value settled on the SAMOS system. The balance of value settled on the SAMOS system is made up of the retail payment streams. Increased values were experienced in EFT debits - 22 percent, EFT credits - 15 percent, debit cards – 34 percent and credit cards - 7 percent. During the same period the value of cheques decreased by 9 percent.

The implementation of a new facility in 2007, referred to as the Real Time Clearing (RTC) payment stream among certain of the commercial banks was successful and gained significant momentum in 2008 with a 221 percent increase in value settled. The aim of this payment stream is to provide the customers of participating banks with an option enabling the transfer of funds between banks and the customers' accounts on a near real-time basis, i.e. within an hour.

#### **9.5 E-MONEY AND MOBILE BANKING INITIATIVES**

No electronic money, as defined in the position paper on electronic money issued in 2006 by the National Payment System Department (NPSD) of the Bank, has been issued in South Africa to date.

The NPSD is in the process of redefining its definition of electronic money, as well as reviewing and investigating other aspects relating to electronic money. This review and investigation process will result in changes being made to the above-mentioned position paper. It is envisaged by the NPSD that the revised

position paper will be reissued during the second quarter of 2009. Growth in the prepaid gift card market is still significant, where the issuer of the prepaid gift cards is not necessarily the provider of the goods and services. The issuers of prepaid gift cards include banks, property management companies and retailers.

Prepaid vouchers are available from retailers to purchase goods and services on the Internet, and vouchers can be purchased via the Internet and forwarded to a mobile phone.

There are currently 6 banks in South Africa that offer access to bank accounts via mobile phones. The services offered by the banks to customers via mobile phones includes balance enquiries, statement downloads, bill payments, fund transfers between customers of the same bank, and fund transfers between customers of different banks.

Commercial banks use mobile technology to enable the un-banked to access the banking infrastructure. It allows the un-banked to open accounts from remote areas as long as they have access to a mobile phone network. Mobile-technology related products, offered by the banks, are cheaper than the normal banking products.

## **9.6 OVERSIGHT ISSUES**

The NPSD oversight division has done on-site visits to the major settlement banks. The main focus was the business contingency arrangements in respect of the branch network in South Africa. Power supply problems were experienced during the period under review. The oversight team was satisfied with the overall quality of the operations and governance of these institutions.

The National Payment System Advisory Body (NPSAB) meeting was held during the period under review. The purpose of the body was to consult mainly with

non-bank stakeholders from across the payment spectrum to understand their concerns and to enable the Bank to manage the payment system more effectively.

As already stated, the NPSD was involved in the process of re-looking into the issues of electronic money, as well as reviewing and investigating other aspects relating to electronic money. An enhanced position paper on e-money will be published later in 2009.

The Bank took note of the release of the Executive\_Overview of the Banking Enquiry Report (“Executive Overview”) by the Competition Commission of South Africa. The Bank has a particular interest in the competition commission report both as regulator of banks and overseer of the National Payment System (NPS). The banking sector and the NPS are both vital to financial stability in the economy.

The Bank is carefully studying both the Executive Overview, including its recommendations, as well as the full competition commission report. Subsequent to comprehensive review and analysis, and after consulting all relevant stakeholders, the Bank, through its normal processes, will initiate any course of action it may deem appropriate in the light of its conclusions.

## **9.7 CONCLUSION**

New strategies will form the basis for enhancements to the South African National Payment System over the next few years. During this time South Africa will continue to contribute to the payment system initiatives in both the CMA and in the SADC region.

## **10. SWAZILAND**

### **10.1 INTRODUCTION**

This report covers progress made in Swaziland's National Payment Systems activities during the period 1<sup>st</sup> April 2008 to 31<sup>st</sup> March 2009 to assist the SADC Payment Systems Project Team to prepare for the upcoming annual meeting of the Committee of Central Bank Governors (CCBG).

A major milestone during the period under review was the official launch of the Oversight function to fully discharge our statutory mandate of promoting, regulating and supervising the efficient and secure operation of the payment system as per the Central Bank of Swaziland Order of 1974 (as amended).

### **10.2 OPERATIONAL ISSUES**

Notwithstanding minor operational challenges in SWIFT as a message carrier, operations of national payment systems continued to run smoothly during the period under review. In line with international best practice, large value items continued to be characterized by low volumes in SWIPSS while activities at the ACH continued to record high volumes of low value items. The SWIPSS/RTGS continued to be the only settlement platform in Central Bank money for the payment systems in Swaziland.

#### **10.2.1 Plastic Cards**

Although activity levels of plastic cards are relatively low when compared to cheque activities, one of the main objectives of the Swaziland National Payment Systems Modernization Programme is to introduce a local clearing switch for domestic ATM/POS activities. This would entail local settlement of domestic interbank transactions (mainly card transactions) as opposed to settlement of



domestic transactions through third party service providers in the Republic of South Africa. This arrangement would enable Swaziland to manage and control her own domestic risk exposures associated with payment systems

### **10.2.2 Sound Legal Framework**

One of the Core Principles for Systematically Important Payment Systems states that payment systems should operate under a well-founded legal basis. The mandate on of the Central Bank of Swaziland is anchored on the Central bank of Swaziland order of 1974 (as amended) while operations rely on signed-off Service Level Agreements, and Rules and Procedures between participants and operators, including the Central Bank of Swaziland.

Promulgation of the National Clearing and Settlements System Bill of 2005 into law to support the existing legal framework remained outstanding during the period under review.

### **10.2.3 Regional Co-operation/CMA Developments**

Swaziland is a member of various regional committees including the intra-regional Common Monetary Area (CMA) Cross-border Payment Oversight Committee with Namibia, Lesotho and South Africa, that is, the CMA CPOC. The objective of this CMA CPOC Committee is to oversee arrangements regarding the flow of payment instruments between CMA countries and to ensure compliance with international standards for cross-border payments.

Swaziland is now at an advanced stage of finalizing the CMA Correspondent Banking Agreement. The correspondent banking agreement will promote the efficient operations and settlement of cross-border payment instruments.

#### **10.2.4 Cash-Based Payments**

Cash continued to be the most widely used form of payment for both domestic and cross border payments (CMA) largely due to the free flow of funds and ease in settlement.

However, there is a need to promote the use of non-cash payments, especially card-based and electronic payments, and to enhance public confidence in the integrity of such payment mechanisms in Swaziland. Strategies to shift the public from heavy reliance on cash payments to card-based and electronic payments are still at a conceptual stage.

#### **10.2.5 Public Disclosure**

During the period under review, the Central Bank of Swaziland posted rules and procedures for SWIPSS/RTGS and ACH, the NPS Vision and Strategic Framework and the NPS Oversight Policy Framework, on the Bank's website to ensure transparency in line with international best practice.

#### **10.2.6 High Bank Charges**

The Central Bank of Swaziland has noted with concern the escalating bank charges which have emerged as a regional and/or global pandemic. The public continued to raise concerns on the high charges for services offered by banks including cash deposits and withdrawals despite associated concessionary rates being offered to banks by the Central Bank of Swaziland.

### **10.2.7 National Payment System Support Structures**

The Bankers Committee continued to be the supreme body whose membership is composed of Commercial Bank Chief Executive Officers and presided by the Governor of the Central Bank of Swaziland.

Below the Bankers' Committee is a Bankers Technical Sub-Committee which is responsible for handling operational issues including the formulation and implementation of policies, and systems rules, regulations and reviews. However, this responsibility will soon be assumed by the recently established Payment Association of Swaziland.

## **10.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

### **10.3.1 Ministry of Finance Module Development Project**

The Central Bank of Swaziland in conjunction with the Ministry of Finance will be working on modalities for the development and implementation of the Ministry of Finance Module on SWIPSS/RTGS from March 2009.

### **10.3.2 Regional Payment and Settlement System Project (REPSS) Project**

The Central Bank of Swaziland continued to participate in the ongoing implementation of the Regional Payment and Settlement System Project (REPSS) under the auspices of the Common Market for Eastern and Southern Africa (COMESA) with the aim of promoting trade between member countries.

### **10.3.3 Collateral Security**

The Central Bank implemented a mandatory monthly collateral security of short-term treasury bills that are lodged and pledged to the Central Bank to ensure timely final settlement of inter-bank obligations on the SWIPSS/RTGS platform.

## **10.4 RETAIL SYSTEM DEVELOPMENT AND PROJECTS**

The implementation of a Virtual Private Network (VPN) to enhance safe and efficient connection for transportation of clearing files and reports between participant banks and the clearing house, continued unabated during the period under review.

On full implementation will facilitate the quick uploading of files from the clearing house via the internet. It will further provide a secure gateway between the clearing house and the RTGS systems to prevent illegitimate access and also provide for file security.

## **10.5 E-MONEY AND MOBILE BANKING INITIATIVES**

There were no developments in this area

## **10.6 OVERSIGHT ISSUES**

Following the formal establishment of the Oversight Office under the NPS Division, a Payment Systems Oversight Policy Framework was finalized during the period under review.

This Policy Framework illustrates the general principles and procedures that shall enable the Bank to carry-out its mandate in accordance with the Central Bank of

Swaziland (amendment) Act, 2004 and to ensure compliance with the BIS Core Principles for Systemically Important Payment Systems (CPSIPS).

The Policy Framework was followed by the development of a Risk Monitoring Matrix to streamline the Oversight of operations in both SWIPSS/RTGS and the ACH. Such Oversight will include both on-site and off-site inspections.

The Payment Systems Oversight Function was officially launched on the 28<sup>th</sup> January 2009 by the Assistant Governor of the Central Bank of Swaziland, in a function that was graced by about 40 relevant stakeholders including senior members of the local financial institutions.

## **11. TANZANIA**

### **11.1 INTRODUCTION**

The National Payment System continues to provide an efficient customer centered payment system in Tanzania. The main instruments and streams currently in use in the payments systems include cash, cheques, Real Time Gross Settlement (RTGS), Electronic Funds Transfer (EFT), Telegraphic Transfers (TTs), Payment cards, Mobile and Internet banking.

This report summarises the activities carried out by the Bank of Tanzania through its Directorate of National Payment System for the period of April 2008 to March 2009. It focuses on operational issues, settlement and retail systems developments and projects, E-money and mobile banking initiatives and finally concludes with NPS oversight issues.

### **11.2 OPERATIONAL ISSUES**

The number of Tanzania Inter-bank Settlement System (TISS) participants has increased to thirty which includes; Bank of Tanzania (BOT), 25 registered Commercial Banks, 3 Financial Institutions and 1 regional unit bank. The Tanzania Revenue Authority (TRA) is an indirect participant. The challenge that is currently being faced is that most TISS participants have not linked their back office systems with their SWIFT CBT. This means that they do not achieve Straight Through Processing (STP) and as a result there is a delay in effecting transfers of up to one day (or more) in beneficiaries receiving funds transferred through the RTGS. The Bank is sensitizing the participants on the importance of having a system that is fully STP.

The Bank is also in the process of introducing a failure to settle mechanism the *defaulter's* pay. In this mechanism, a participant will be required to pledge securities that will be used when a bank fails to meet its obligations. This was necessitated after an increase in the delay of the settlement of the Net Settlement Batch from the Clearing houses. The Net-settlement batch of the Clearing House settles in TISS after consolidating all the figures from the five Clearing Houses in the county. This batch sometimes remains pending in the system due to one or more bank having insufficient funds for settlement.

### **11.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

TISS was upgraded so as to accommodate the SWIFT changes that were introduced by the migration to SWIFTNet Phase2 whereby the message authentication will now use the RMA (Relationship Management Application) as opposed to the previously used BKE (Bilateral Key Exchange).

Projects that are currently underway are as follows:

- Upgrading of the RTGS (TISS) to include the multicurrency functionality which will partly facilitate the participation in regional payment systems. The upgrade is currently in a testing phase.
- Collaboration between the Ministry of Finance and Economic Affairs (MOFEA) and the Bank so as to achieve the connectivity between MOFEA's system and TISS. Currently TISS has already been upgraded. Testing shall commence once MOFEA systems upgrade has been completed.
- Collaboration between Dar es Salaam Stock Exchange (DSE) and the Bank so as to facilitate the settlement process after the trading and also to achieve delivery versus payment (DVP). This project is in the inception phase.

- Upgrading of TISS to include a cross border module that will enable transfer of funds between the East Africa member states. Currently the final specifications have been sent to the vendor for the development process to commence.

#### **11.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

The Bank of Tanzania operates five clearing houses and during this period, the last two manual clearing houses (in Zanzibar and Mbeya) were automated.

Moreover, the Bank has introduced a value limit in the clearing houses with effect from 1<sup>st</sup> March 2009. This means that all cheques with value in excess of TZS 10 million will no longer be processed in the clearing houses and will now be processed in the local RTGS (TISS). Value limit for Government cheques shall be implemented in phases with a deadline of December 2010

In terms of retail systems projects, the following are ongoing projects:

- Automation of the dollar clearing process in the Dar es Salaam clearing house (DECH) which is scheduled to go live in April 2009. The remaining clearing houses will be automated in the second phase.
- Upgrading of the Net Settlement Gateway (NSG) to enforce the value limit that has been introduced in the clearing houses.

In future, the Bank plans to facilitate the introduction of a National Switch in the country which will enable customers to share ATMs and POS machines of any bank in order to achieve interoperability. A sensitization program to all banks was conducted in February 2009.



## **11.5 E-MONEY AND MOBILE BANKING INITIATIVE**

The introduction of mobile payments in the country has enabled banking facilities to reach the un-banked community. In this period, three mobile companies introduced m-payment services as follows:

- Zantel introduced a product called Z-Pesa that facilitates the transfer of funds from customer to customer
- Vodacom introduced a product called M-Pesa that facilitates transfer of funds from customer to customer. They are currently in the process of extending their services to include payment of utilities and facilitation of microfinance business.
- Zain introduced a product called ZAP, launched in February 2009, which facilitates customer to customer, business to customer, and customer to business payment transfers.

The Bank facilitates these implementations by providing standards and guidelines as well as performing the oversight function by requesting for information from the service providers to verify compliance to the laid down standards.

## **11.6 OVERSIGHT ISSUES**

During the reporting period, the Bank continued to undertake oversight activities to ensure safety and efficiency of the payment systems in the country. Among other activities, the Bank conducted an annual assessment of the systems that have an impact to the economy. These systems include the RTGS (TISS), Government Securities Systems, retail payment systems and other money transfer systems. In addition, the Bank also conducted ~~and~~ on-site oversight of retail payment systems that are owned/operated by the stakeholders.

The Bank also reviewed various Rules and Regulations to accommodate the new electronic clearing houses, dollar clearing, new charges in TISS, and the failure to settle mechanism.

The Bank is also in the process of formulating the National Payment Systems Act and an Electronic Transactions Bill which shall be forwarded to the parliament for promulgation.

Furthermore, the Bank has conducted a sensitization workshop in the month of February 2009 that aimed at informing the stakeholders on the current developments, discussing issues of concern and sourcing for feedback on the already implemented payment systems.

In future, the Bank is planning on hosting an e-commerce training expected to take place in April 2009. The aim of the workshop will be to bring awareness on e-commerce issues to the East Africa member partner states.

## **12. ZAMBIA**

### **12.1 INTRODUCTION**

This report reviews developments that took place in the Zambian National Payment Systems between April 2008 and March 2009. The report also highlights the initiatives that the Bank of Zambia undertook in collaboration with payment systems stakeholders as well as the efforts to implement fully functional oversight over the payment system.

During the period under review, the Bank of Zambia continued to implement some initiatives intended to enhance efficiency, safety and soundness of the payment systems. In undertaking these programmes, the Bank involved a wide spectrum of stakeholders.

### **12.2 OPERATIONAL ISSUES**

Although the Zambian Inter-bank Payment and Settlement System (ZIPSS) operated satisfactorily during the year under review, there were incidents of connectivity disruptions between the SWIFT service network provider and the SWIFT bureau that had little or no effect on the overall system. All commercial banks actively participated in ZIPSS.

The volume of transactions processed in ZIPSS increased by 49.48 % to 136,720 transactions (2007: 91,462) with the transaction volumes peaking in December 2008. The value of transactions similarly increased by 39.15% to K228,613 billion (2007: K164,295 billion). Access Bank Zambia limited was yet to be included on ZIPSS as at December 2008.

**Chart 1**

Month	Volumes				Values			
	2006	2007	2008	% Change (2008 vs. 2007)	2006	2007	2008	% Change (2008 vs. 2007)
Jan	5,487	6,126	10,624	73.42%	10,425.00	13,926.00	18,281.00	31.27%
Feb	4,871	5,287	9,877	86.82%	7,552.00	10,579.00	17,158.00	62.19%
Mar	5,492	6,394	9,689	51.53%	10,178.00	14,123.00	14,214.00	0.64%
Apr	4,592	6,474	11,015	70.14%	7,927.00	16,414.00	14,344.00	-12.61%
May	5,313	7,581	11,227	48.09%	6,406.00	17,696.00	16,912.00	-4.43%
Jun	5,373	7,064	11,013	55.90%	7,712.00	11,360.00	20,014.00	76.18%
Jul	4,735	7,105	12,645	77.97%	8,564.00	13,862.00	18,908.00	36.40%
Aug	5,678	7,687	11,020	43.36%	9,741.00	13,524.00	20,518.00	51.72%
Sep	5,857	7,734	11,316	46.31%	13,814.00	12,001.00	20,160.00	67.99%
Oct	5,661	9,997	13,043	30.47%	13,243.00	12,679.00	26,926.00	112.37%
Nov	5,979	10,246	12,118	18.27%	13,229.00	13,426.00	21,855.00	62.78%
Dec	6,028	9,767	13,133	34.46%	13,162.00	14,705.00	19,323.00	31.40%
Totals	65,066	91,462	136,720	49.48%	121,953.00	164,295.00	228,613.00	39.15%

The increase in volume and value of transactions can be attributed to Government migrating its payments to ZIPSS in compliance with the Item Value Limits (IVL). Prior to June 2008, Government was allowed to process payments above the IVL threshold on alternative payment streams mainly cheques. This was with a view of allowing a smooth changeover.

## **12.3 SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS**

### **12.3.1 Linking Of Lusaka Stock Exchange To ZIPSS/RTGS**

During the period under review, progress was made in linking the Lusaka Stock Exchange to the Zambian Interbank Payment and Settlement System (ZIPSS).

A memorandum of understanding was agreed and signed-off by all the parties to the agreement during the period under review.

The project is motivated by a desire to implement international best practices in settling security trade transactions by the achievement of delivery versus payment.

### **12.3.2 COMESA Regional Payment And Settlement System**

Although the implementation of the COMESA Regional Payment and Settlement System (REPSS) made limited progress, the Bank of Zambia participated in the Project during the period under review.

The major milestone achieved was successful completion of tests by central banks of various member countries. However, the tests were not extended to commercial banks due to a number of technical problems experienced. It is expected that the implementing agency of COMESA REPSS, the COMESA Clearing House, will resolve these technical problems in 2009 allowing the project to progress.

### **12.3.3 Zambia Revenue Authority-Bank Of Zambia RTGS Interface Project**

During the year under review, agreement was reached between the Bank of Zambia and the Zambia Revenue Authority on enhancing the Tax Payment Stream. This would result in the deployment of a technology solution that would eliminate manual processing of tax payments and improve service delivery particularly at border points.

## **12.4 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

### **12.4.1 National Switch Project**

During the period under review, Bank of Zambia and the Bankers Association of Zambia resolved to set-up a National Switch in partial fulfilment of the National Payment Systems Vision and Strategy 2007-2011. Towards this end, a vendor for the solution was selected following an open tender process and negotiations. It is anticipated that the implementation will commence in the second quarter of 2009.

### **12.4.2 Cheque Truncation Project**

During the period under review, the Bank of Zambia and the Bankers Association of Zambia agreed to initiate the Cheque Truncation Project in 2009. The National Payment Systems Vision and Strategy 2007-2011 identifies cheque truncation as a key strategy to streamline cheque processing in Zambia. It is envisaged that this will be achieved through resulting improvements in service delivery and reduction in costs and payment systems risks arising from the implementation of truncation.

Bank of Zambia and the Bankers Association of Zambia are expected to develop an appropriate model during the first quarter of 2009 and the implementation to commence after identification of an appropriate solution.. The expected rollout date is first quarter 2010.

## **12.5 E-MONEY AND MOBILE BANKING INITIATIVES**

### **12.5.1 Mobile Payment Initiatives**

During the period under review, two mobile payments services providers were designated to provide services. One of the services is targeted at both the banked and the unbanked who receive payments in cash. The product is suited to high volume but relatively low-value transactions.

The other service provider will provide a product to customers who hold bank accounts with a bank which is a member of VISA. The product allows business to business payments, retail payments between customers and merchants, payment of utility bills and transfer of funds.

## **12.6 OVERSIGHT DEVELOPMENT INITIATIVES**

### **12.6.1 Operationalisation Of The National Payment Systems Act, 2007**

During the year 2008, Bank of Zambia commenced implementation of the National Payment System Act No.1 of 2007 (NPSA) which came into effect in 2007. Under this Act, any person intending to operate a payment system or payment system business shall apply to the Bank of Zambia for designation of the system.

As a result, the Bank of Zambia successfully designated fourteen (14) Payment Systems<sup>5</sup> Participants<sup>6</sup>, fourteen (14) Payment Systems Business<sup>7</sup> and two (2) Payment Systems.

---

<sup>5</sup> A payment system is defined by the NPSA as a clearing and settlement system

<sup>6</sup> A participant is defined by the NPSA as a member of a payment system

<sup>7</sup> A payment system business is defined by the NPSA as the business of providing money transfer or transmission services or any other business that the Bank of Zambia may prescribe as a payment system business

### **12.6.2 Dishonoured Cheques Circular**

During the period under review, the Bank of Zambia issued a Commercial Bank Circular on Dishonoured Cheques on account of insufficiently funded accounts. The circular details measures for implementing section 33 of the National Payment Systems Act No.1 of 2007 which criminalises bouncing of cheques on account of insufficiently funded accounts were this is done wilfully or with intent to defraud.

### **12.6.3 Money Transmission Guidelines**

During the period, the Bank developed and issued guidelines for Money Transmission service providers to facilitate oversight of these institutions. These guidelines were agreed with the money transmission businesses and effected in the course of 2008.



## **13. ZIMBABWE**

### **13.1 INTRODUCTION**

The report outlines the progress made on Zimbabwe's payment system from April 2008 to March 2009.

The major highlights during the period under review include the completion of the following projects:

- a) **SWIFTNet Phase II** - Relationship Management Application (RMA) Migration;
- b) **Straight Through Processing (STP) Project**, which was coordinated by the Central Bank as an industry-wide initiative;
- c) **Interoperability** of local cards on a common ATM and EFTPOS platform (Zimswitch) and;
- d) **Resuscitation of a back-up satellite link** to augment the already existing Terrestrial link to enable smooth telecommunications on the RTGS and CSD systems.

### **13.2 OPERATIONAL ISSUES**

#### **13.3 RTGS SYSTEM**

**13.3.1** The RTGS system utilization levels continued on an upward trend, from 96% in 2007 to 98% recorded in 2008.

**13.3.2** Volumes of transactions processed through the system totaled 3,346,686, an increase of 41% from 2,377,726 recorded in 2007.

**13.3.3** Following abuse of the RTGS system by some members of the public who used the system to carry out illicit parallel market activities, the Central Bank took a deliberate move to temporarily suspend the processing of customer payments through the system with effect from 3 October 2008. The suspension was however lifted on the 12<sup>th</sup> of November 2008 after banks had to put in place adequate mechanisms to curb the malpractice.

#### **13.4 CENTRAL SECURITIES DEPOSITORY (CSD) SYSTEM**

**13.4.1** The total volume of transactions recorded in the CSD system in 2008 was 13,830, a 40% decrease from 23,032 recorded in 2007. Primary market transactions decreased marginally by 6% to 222 from 237 recorded in 2007. Secondary market transaction volumes decreased by 41% from 22,600 recorded in 2007 while maturity transactions increased by 22% from 195 to 237.

**13.4.2** Following the continuous review of the CSD system's performance, an upgrade was carried out in May 2008. The upgrade enhanced system functionalities and resolved some of the challenges which had resulted in failure to successfully carry out some processes such as the printing of reports.

#### **13.5 SETTLEMENT SYSTEMS DEVELOPMENTS AND PROJECTS**

##### **13.5.1 Satellite Back-up connectivity for RTGS and CSD systems**

The RTGS and CSD systems were largely stable for the greater part of the period under review. This can be attributed to the successful resuscitation of a back-up satellite link that augmented the existing Terrestrial link. The Terrestrial

link had been characterized by random breakdowns that resulted in intermittent delays in closing the RTGS and CSD systems.

### **13.5.2 SWIFTNet Phase II - Relationship Management Application Project**

The Zimbabwean banking community successfully completed the SWIFTNet Phase II (RMA) ahead of the SWIFT country deadline. The coordinated approach taken by the Bank, in particular the arrangement of essential training conducted during August 2008, was critical to the successful completion of the project.

### **13.5.3 Straight Through Processing (STP) Project**

The STP project, which was launched in December 2006, was completed in July 2008.

The processing of RTGS transactions on a STP platform indicated an improvement in the levels of efficiency brought about by the decentralization of work loads within banking systems.

## **13.6 RETAIL SYSTEM DEVELOPMENTS AND PROJECTS**

### **13.6.1 Interoperability of Card Payments**

Considerable progress was made towards the completion of the first phase of the project, which involved integration of all card accepting devices such as POS and ATMs onto the common national switch (Zimswitch). Local debit cards, except for those from one bank, are now operable on the national switch. The remaining bank is at advanced stages of being connected to the Zimswitch platform.

## **13.6.2 Framework for Retail Payment Systems**

The Reserve Bank, in collaboration with the banking community and customer payment service providers stepped up efforts in coming up with a Framework for Retail Payment Systems to establish a comprehensive electronic retail system in the country. A joint research visit involving banking industry representatives was conducted during 2008 to study retail payment systems in the Republic of South Africa. It is expected that the collaborative efforts will culminate in a retail system acceptable to the entire banking industry.

## **13.7 E-MONEY AND MOBILE BANKING INITIATIVES**

### **13.7.1 E-money**

There are currently no e-money schemes operating in Zimbabwe. Despite the absence of these schemes, the Bank continues to encourage initiatives from various stakeholders that enhance payment systems efficiency.

### **13.7.2 Mobile Banking**

As at 31 December 2008, there were nine (9) banks in the country offering mobile banking services. However, the services currently offered by the banks are limited to intra-bank transactions.

The only local switch with a national outlook, Zimswitch, is currently working on an upgrade project to cater for the switching of Card-Not-Present (CNP) inter-bank transactions such as mobile and internet payments, *inter alia*.

## **13.8 OVERSIGHT ISSUES**

### **13.8.1 Business Continuity Plans (BCPs)**

The Reserve Bank continued with onsite inspections of RTGS and CSD system participants' Disaster Recovery (DR) sites during the period under review. The inspections ascertained that the participant's disaster recovery arrangements were satisfactorily resourced to respond to any eventualities.