

ANNEXURE A

SOUTHERN AFRICAN DEVELOPMENT COMMUNITY (SADC) PAYMENT SYSTEM PROJECT

COUNTRY-SPECIFIC PROGRESS REPORTS FOR PERIOD APRIL 2007 TO MARCH 2008

REPORTS

1. ANGOLA

1.1. INTRODUCTION

The Angolan Payment System (SPA) continuous on being developed in harmony with the" SPA Project – Architecture and Strategy of the Implementation", approved in January/2000 and revised May/2003, prepared by Task Force Group for the Payment System. At present the 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 the context of the projects and developments deliberate to the Angolan Payment System, the following tasks on the 2007 Action Plan were not accomplished, for reasons that exceed the Head of the Department and because, the accomplishment of some of the task did not depend only on the BNA, but on the articulation with other institutions i.e. MINFIN:

- Implementation of the Automated Clearing House (CCAA);
- Implementation of the new applications program for the calculation and control of the fulfillment of the compulsory reserves;

- Implementation of the new routine for payment of taxes that will allow the transfer for the count of the Treasury of all the taxes gathered by the bank system;
- Conclusion and implementation of the Project of Payment of Salaries to State Workers (PPSFP)
- Preparation of a consolidated Manual with the whole SPA legislation, namely: SPTR Regulations and norms.

Some meetings were carried out with MINFIN aiming to find solutions for the implementation of the tasks, since, the performance for the Project of Payment of Salaries for State Workers (PPSFP) and the New Routine of Tax Payment, depended on the pledge and collaboration of this Ministry. Even though, some progress was made in the last term regarding the PPSFP and it's believe that in 2008 the subsequent actions will be implemented in order to conclude the project.

With reference to the Compulsory Reserves, it was not implemented the new applications program mainly due to update of the new account book called CONTIF, since the alterations will affect the accounts which are necessary for the implementation of the new applicative once what deep alterations will be registered at the level of the counts that are the base for the conception of the applications program.

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 Treasury, 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).

The table below shows the annual variation in terms of payments instrument volume on the SCV, EMIS and SPTR within the country.

TRIMESTRE	VOLUME DE TRANSAÇÕES(MIL)						TOTAL
	CHEQUES	ORDENS SAQUE	DOCUM CREDITO	ATM	POS	SPTR	
2006							
Iº	69.003	7.868	2.505	1.500.728	60.506	10.059	1.640.610
IIº	73.635	9.003	2.437	1.781.332	66.295	10.415	1.932.702
IIIº	75.765	7.328	3.166	2.309.278	87.465	11.245	2.483.002
IVº	82.767	6.790	4.540	3.190.811	109.029	13.377	3.393.937
TOTAL ANUAL	301.170	30.989	12.648	8.782.149	323.295	45.096	9.450.251
2007							
Iº	75.127	8.020	3.513	3.081.405	94.152	12.531	3.274.748
IIº	78.332	9.273	4.535	3.821.535	118.849	16.125	4.048.649
IIIº	82.991	7.715	4.985	4.687.882	140.689	20.480	4.944.742
IVº	88.859	7.955	5.963	6.216.576	199.199	23.614	6.542.166
TOTAL ANUAL	325.309	32.963	18.996	17.807.398	552.889	72.750	18.810.305
VARI % ANUAL	8%	6%	50%	103%	71%	61%	99%

On the period in analysis, the payment instrument growth transacted was 99 %, comparing to last year, having contributed to this growth the Multicaixa Subsystem with 103 % for debit cards and 71 % for credit cards, subsequent to that is Cheques with 8%, the Orders of Withdrawal with 6% and Credit Documents. The Angolan Payment System in Real Time (SPTR)) registered a volume of 72.750 transactions against 45.096 transactions in the year 2006.

However, overall the to 2007 statistics presented a growth of around 116 % in terms of the amounts of instruments cleared and settled when comparing to the 2006 statistics, this can be seen on the table below;

TRIMESTRE	CHEQUES	ORDENS SAQUE	MONTANTE DE TRANSACÇÕES(MIL)				TOTAL
			DOCUM CREDITO	ATM	POS	SPTR	
			2006				
Iº	85.339.206.799	45.623.681.797	4.282.175.090	6.044.823.900	353.931.949	633.499.908.015	141.643.819.535
IIº	109.093.217.312	42.456.621.764	3.459.013.946	7.572.668.256	680.202.939	699.120.209.119	163.261.724.217
IIIº	107.966.653.835	38.127.401.258	5.227.228.013	9.429.192.943	556.843.066	836.699.919.472	161.307.319.115
IVº	128.420.267.478	42.799.509.935	5.918.617.187	14.028.694.112	787.561.124	1.232.577.258.252	1.424.531.908.088
TOTAL ANUAL	430.819.345.424	169.007.214.754	18.887.034.236	37.075.379.211	2.378.539.078	3.401.897.294.858	4.060.064.807.561
			2007				
Iº	120.457.112.027	47.264.006.121	6.672.099.905	12.714.182.719	751.041.118	1.067.583.120.073	1.255.441.561.963
IIº	137.667.044.506	55.061.372.331	5.322.659.836	15.230.383.046	954.778.599	1.558.574.921.110	1.772.811.159.428
IIIº	134.646.473.531	46.503.914.322	5.251.641.508	18.459.412.039	1.204.146.400	2.326.576.191.662	2.532.641.779.462
IVº	152.801.725.981	61.164.977.712	4.310.312.859	25.801.859.489	2.056.434.604	2.968.078.495.859	3.214.213.806.504
TOTAL ANUAL	545.572.356.045	209.994.270.486	21.556.714.108	72.205.837.293	4.966.400.721	7.920.812.728.704	8.775.108.307.357
VARI % ANUAL	27%	24%	14%	95%	109%	133%	116%

During the period in analysis, SPTR settled in terms of value **AOA 3.401.899.294.862,54** with an average of monthly processing in volume and value of **3.758** and **AOA 283.491.607.905,21** respectively. From the value settled, 9,7% corresponds to the amount of the multilateral balances cleared on the SCV and MULTICAIXA systems, which are responsible for the processing of low value payments.

Nevertheless, the SPTR will reach its performance in terms of processing of operations of the high value payment instruments cleared on the SCV will be migrated on the SPTR system. It is referred in particularly with the migration of payments of taxes effectuated on behalf of the MINFIN, which are paid in high value cheques.

On the operational scope, the actions to be implemented in order to adapt the SPA on the Core Principles for SIPS. Additionally, the actions related with SCV will be all exceeded with the entry in functioning of the Angola Automated Clearing House (CCAA):

Regarding the SCV (Service Clearing Value):

1. Introduction of clear rules about the risks and the impact for the participants
2. Introduction of risks management mechanism
3. Separating the clearing of cheques from others credit instruments, or the migration of high value transaction to SPTR – stopping -SCV being a system of importance systemic. (This is the strategy of the BNA)

1.3. SETTLEMENT SYSTEM DEVELOPMENT AND PROJECTS

1.3.1. New Routine for Tax Payments

The new routine for tax payment will allow the transference of all collected taxes to throughout the country to the in the same day of the collection. In the course of the term it was carried out a meeting that allowed discussing the 1st draft of notice on the gathering of taxes which are waiting for contributions from MINFIN, namely, National Directions of Taxes, Treasure and Customs.

This project did not have the development expected in 2007, because MINFIN/National Tax Institution till now, have not manifest regarding the draft of Notice to regulate the new proceedings submitted to that institution for analysis and contributions by BNA, after prior discussion with the MINFIN itself, even with BNA's incessant appeals. Therefore, will continue on the action plan for 2008.

1.3.2. Financial Settlements of the Transactions within the Open Market

The operational routines are being discussed 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 Center 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.

1.3.3. Legal Base

In accordance with the Core Principles for Systemically Important Payment Systems and as it was recommended on the last FSAP evaluation, one of the

tasks for 2008 is the preparation of a Consolidated Manual with the whole SPA legislation, such as SPTR regulations, and norms.

1.4. RETAIL SYSTEM DEVELOPMENTS AND PROJECTS

1.4.1. Angolan Automatic Clearing House (AACH)

The constitution of the Angolan Automatic Clearing House, called CCAA abbreviated, was predicted in the SPA Project - Architecture and Strategy of Implementation due to the fact that is an important infrastructure for a modern and safe payment system in order to guarantee the security, capability and agility on the process for payments of low value.

The Automatic Clearing House (ACH) is a necessary infrastructure for a whole modern and safe payment system in order to guarantee the security, capability and agility on the process for payments of low value (retail payments) done through the following payment instruments:

- **Interbanking Electronic Transfer on credit**
- **Cheques**
- **Interbanking Electronic Instructions for Direct Debit**

The ACH to be implemented in Angola will substitute the current SCV and will be operated, administrated and property of the Interbanking Services Company (EMIS), with consequence of the mission for EMIS in the context within SPA.

The discussions had on the ACH within BNA allowed the preparation of the initial draft of the Clearing House Regulation. This regulation establishes the arrangement of systems for effect of risk reduction, the rights and basic duties of the operators and participants and the compulsory rules of functioning for each system. Moreover, the regulation will be an object of discussion with the

participants of the system, namely, EMIS, the members of CTSPA and representatives of CELCUS

For the year 2008, it's planned, the realization of an international open competition for auditing services, to carry out a diagnosis on the retail payment system, that is MULTICAIXA and CSV systems and the functional requisites of the future Automatic Clearing House (ACH).

1.4.2. Implementation of Visa Credit Cards in Angola

The Angolan National Bank, in the function of regulator of the Angolan Payment System, has been participating with the Company for Interbanking services (EMIS) and the commercial Banks in the discussions of the solutions that will allow the introduction for the product credit card in Angola. This process allowed between others the next results:

- Affiliation to the 6 (six) above-mentioned entity as principal members, that is BAI, BFA, BIC, BPC, BMA and BESA, as well as the affiliation of the BTA and BSOL as associate members.
- Conclusion by EMIS and its partners (VISA and SIBS) for tests certification of the ATM'S/POS, in relation to VISA credit card acceptance on the MULTICAIXA network of ATMs and POSs;
- Review on banking cards regulations culminated with the publication of the Notice nº. 01/2007, March 21st, on banking Cards;
- Begin of the process of issuing VISA credit card in Angola for three Angolan banks;
- Beginning of the credit card acceptance AIMS, given out so much in Angola I eat abroad, in ATMs already made sure of the net MULTICAIXA;
- Begin of tests certification for POS on MULTICAIXA network in order to accept VISA credit card;
- Realization of a training action promoted by BNA and tutor by VISA, with intention to prepare commercial banks with the introduction of VISA cards in

the Angolan market. On this training action, held in the IFBA, participated 28 (twenty eight) people from BNA, EMIS and commercial banks i.e. BPC, BFA, BTA, BIC, Millennium and Banco Sol. The training dealt with the basics issue related to banking cards business;

- Realization in June of a Workshop on “ The Vision for the Electronic Payments ”, promoted by BNA, with VISA participation and BNA’s staff and manager representatives from Commercial Banks, Interbank Services Company (EMIS) and the Angolan Banking Association (ABANC). The Workshop had the exchange of experiences as a principal objective, as well as the leveling of knowledge of international practices on the subject of bank cards.

For 2008 the Angola National Bank will give continuity to the project, in terms of overseeing the actions connected with implementation of the VISA credit cards.

1.4.3. Multicaixa Network

Overseeing EMIS on the actions for the MULTICAIXA product expansion and influence throughout the others provinces as well as the POS service dinamization.

1.4.4. Project on Salaries Payment to State Workers (PPSFP)

The principal actors for this process are the MINFIN represented by the National Direction of the Treasure and the Office of Computer Science, the National Bank of Angola, represented by the Payment System Department, the legally established Commercial Banks operating in the national market and the Interbanking Enterprise of Services (EMIS).

The interactions held between the Angola National Bank (BNA) and Finance Ministry (MINFIN), in the context of the PPSFP project, allowed the development of the following activities:

- Signature and publication of the Joint Dispatch n° 618/07 between the MINFIN and BNA, which approves of the Manual of Procedures for payment of salaries for state workers which will allow the progressive introduction of the above-mentioned project
- Publication of the Notice n° 18/07 of November 15th, which establishes the minimum general conditions to be observed when opening a salary account (current account) by the state workers.

The incomplete tasks tied to this project will deserve a proper attention for Angola National Bank in the year 2008.

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:

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

1.6. OVERSIGHT ISSUES

The basis to perform oversight function on the Angola Payment Systems is formally established on the Law n° 05/05, from June 9th (Angolan Payment

Systems Law), in which also includes the functioning principles and scope. Three initiatives were adopted in the context of SPTR oversight:

a) It was established through a Notice nº 02/2007 of April 19th, the obligation to settle in the SPTR all single transfers with value superior to **AOA 5.000.000,00** subject to the payment of tax of service in the value of **AOA 2.400,00** for cheques cleared on those value or superior to this limit. This measures, moderate the clearing balances, thus, reducing the possibility of incident such as liquidity risks in other words, the probability of a bank to have no capacity to liquidate the respective cleared debit balance, at the obligation time.

b) The Regulation of the Angolan Real Time Payment System (SPTR) establishes that the payments settled on SPTR must be credited on the beneficiary client account in real time, however, it admitted 30 (thirty) minutes for the effectuation of this credit after the reception of the settled payment instruction.

Considering the countless information received on the delay, in most of the cases superior to a working day, in the execution of the credit on the demand deposit account relative the transfers of funds settled on SPTR, BNA, through a document dated on 11 June 2007, determined to the banks that, within 3 (three) months, they should introduce in the respective internal systems a solution to make possible the execution through automated means, without manual interference, of the credits settled on SPTR, relative to transfers of funds executed through messages SWIFT MT 102 and MT 103 on the banking clients demand deposit accounts.

For the current year the actions to carry out in the oversight context are:

- Realization of the systematized course on payment system with resource World Bank financing.

- Preparation of a document to publish the oversight politics, with the objectives, scope and standards of oversight of Angola Payment System.
- Preparation of the Manual of Internal Procedures for the Oversight Sector

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 2007 to March 2008.

2.1.2. The report outlines the significant milestones achieved in terms of overall payments system issues and project development. During this period, the Bank was engaged in a number of major activities as illustrated below:

(a) National Payments System (NPS) Legislation Review

2.1.3. The Legal Sub-Group which has a mandate to review all the legislation in Botswana that could adversely impede the smooth implementation of the NCSS Act, 2003 and supporting Regulations 2005 resuscitated its work during 2007. The group provided comments on the Draft Bills of Exchange Act and these have been considered for incorporation. Other legislations are planned to be reviewed during 2008. The review is a continuous process that will assist in the identification of legislative issues that may require amendment in support of the NPS.

(b) Botswana NPS Newsletter

2.1.4. Preparations for the publication of the third issue of the Botswana NPS Newsletter, "Tsa Tuelano", are at a very advanced stage. The newsletter will be distributed to all stakeholders locally, regionally and internationally.

(c) Statistics

- 2.1.5. The database for NPS statistics has been extended to include remittances statistics during 2007. The major sources of data/information are the banks, money transfer businesses, the Research and Banking Supervision Departments of the Bank, the Electronic Clearing House (ECH) Botswana, etc. The Bank continues to improve the collection and collation of payments system statistical information in liaison with other stakeholders

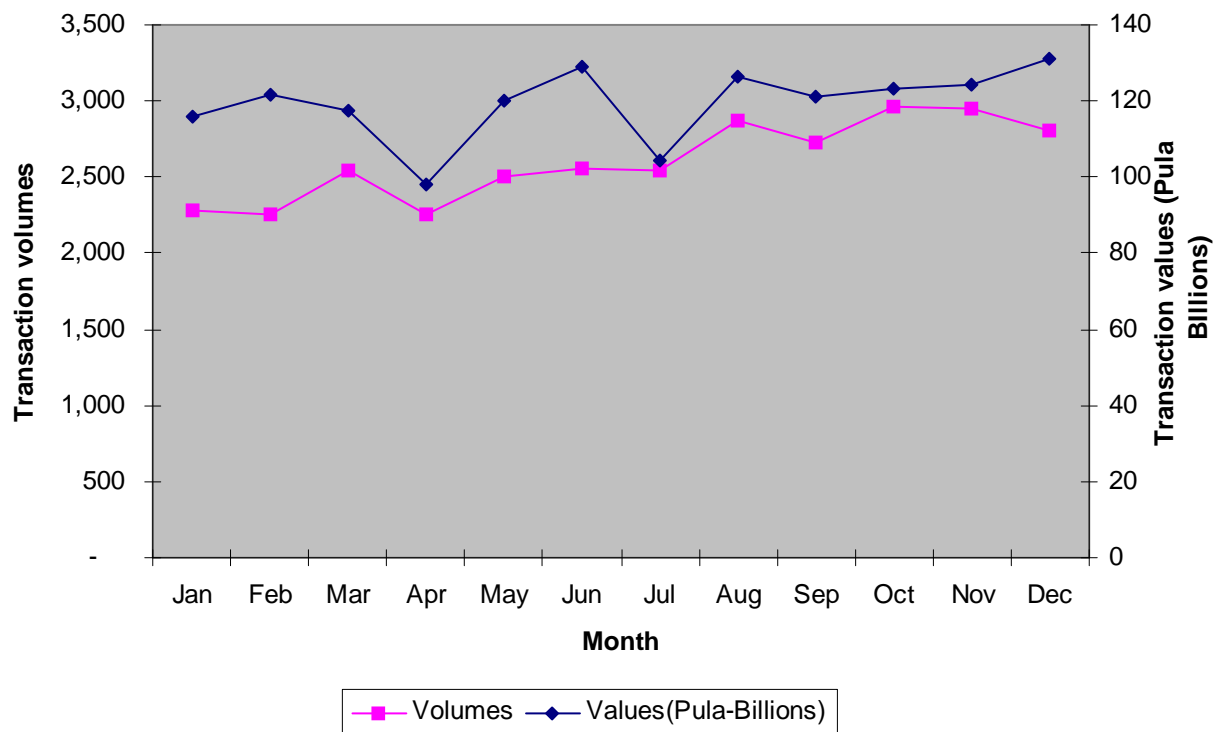
2.2. OPERATIONAL ISSUES

- 2.2.1. The operations of the Real Time Gross Settlement System (RTGS) known as Botswana Interbank Settlement System (BISS) and ECH remained stable during 2007. 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. Discussions are ongoing for the Bank to introduce proposed penalty charges on selected Botswana Interbank Settlement System (BISS) transactions to instil discipline amongst members.
- 2.2.2. Detailed operational guidelines for BISS and the Intraday/Secured Lending Facility (ILF/SLF) are in place to guide and support both operations. The Bank continues to maintain good relations with participants and communicates any problems encountered through the BISS Participant Committee and/or the National Payments Systems Task Force (NPTF). No major operational problems on the BISS were reported in 2007. Participants are working towards achieving Straight Through Processing (STP) between front and back offices by the end of the second quarter of 2008.

2.3. SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS

2.3.1 Settlement is based on the BISS following its implementation in late 2006. BISS continues to gain more thrust in its progress and it is considered to be stable. The volumes and values have continued in a flat trend as compared to the first few months of 2007 when it showed an upward trend. The chart below reflects the volumes and values processed through Botswana Interbank Settlement System (BISS) during 2007.

BISS TRANSACTION VOLUMES AND VALUES FROM JAN TO DEC, 2007



2.3.2 The introduction of the Central Securities Depository (CSD) by the Botswana Stock Exchange (BSE) is also at an advanced stage and is expected to commence live operations during the first quarter of 2008. The CSD will provide linkage between BSE trading flow and the settlement bank (could be a commercial bank or the central bank).

2.4. RETAIL SYSTEM DEVELOPMENTS AND PROJECTS

2.4.1. The plan to introduce Cheque Imaging and Truncation System (CITS) has been initiated during 2007. The Bank engaged with stakeholders in the possible upgrade of the ECH system to undertake imaging and truncation. The Bank successfully hosted two sensitisation seminars on Cheque Imaging and Truncation with all stakeholders to ensure a common understanding of the project. A task force comprising of representatives of all participants has been constituted. Despite delays during 2007, the project is planned to proceed more aggressively in 2008.

2.4.2. There is focus in ensuring the safety and efficiency of the NPS hence the Bank is in discussion with relevant stakeholders/authorities in consideration of the capping of cheques to among others curb fraudulent activities involved in cheque transactions and encourage greater use of the BISS. There has also been an increase in the use of retail payments instruments especially by credit and debit cards. The Bank continues to evaluate this growth through regular updates of the payments system statistics database.

2.5. E-MONEY AND MOBILE BANKING INITIATIVES

The Framework and Strategy document of the NPS recommended developments in this area as part of the reform and modernisation programme. An issues paper on e-money regulation has been drafted. The Bank continues to receive inquiries in this area and is processing applications with a view of recognising their operations in line with the requirements of the NCSS Act 2003. Recent updates show that there is currently one commercial bank which offers mobile and internet banking. During the past years, Botswana has been involved in an aggressive program in the reform and modernisation of its payments systems hence

more initiatives are expected from the banking industry, particularly with the entry of more players.

2.6. OVERSIGHT ISSUES

The NPS oversight framework and implementation guidelines are in a draft form pending finalisation. Supportive structures such as Legislation, System Rules and Regulations are in place hence its implementation is expected during 2008. To clarify the duties and roles of the Payments System Department and Banking Supervision Department, a draft Memorandum of Understanding (MOU) has been developed. The MOU is expected to provide an effective framework for a continuing liaison between the two departments. This Agreement is still being considered by the two departments and the Bank management.

3. DRC

3.1. Introduction

In February 2006, the Governor of the Central Bank of Congo officially launched the work of the Steering committee of the National Payment System (CPSNP) and of the Mission for the Modernization of the National Payment System (MIMOSYS) in order to modernize the National Payment System in Democratic Republic of Congo.

At the same time, He had promised to the banking community that this project has priority for the Financial System of the DRC which should also catch up for its lost time in this field according to the commitments with the Member States of the SADC.

At the beginning of the year 2007, the World Bank decided to finance the project of modernization of the DRC National Payment System for a total value of more or less 10.000.000 of dollars American, feasibility studies and investment costs included.

It is necessary to note that with this agreement of financing of the project by the World Bank, all the procedure of recruitment of the Consultant in charge of feasibility studies had to be taken again according to the World Bank directives market contract directives. Two years have been just passed with the World Bank procedures for the recruitment of the International Consultant for the development of the preliminary studies.

We have just been informed that the procedure came to his end and that the contract could be signed at the end of February 2008 in order to allow the Consultant to start his job around semi March 2008.

3.2. Operational issues

The two years have been just passed with the realization of the certain preconditions, in particular the implementation of:

- Modern information system;
- Telecommunication network by satellite;
- Implementation of the software "Banking Supervision Application" allowing the follow-up of the solvency and the liquidity of the commercial banks and other financial institutions;
- the major project is that of the telecommunications network by VSAT between the Central Bank head quarter and the 39 points of exploitation (branches) of the Bank. This network is working and allows management of information system in real time;
- Implementation of new software (flex cube) for the management of the reserve currency (front, middle and back office);
- Automatization of the clearing house transactions;
- Modernization of the Management of the Treasury Department with the improvement of safety measures and the quality of the circulation of money.

3.3. Settlement system developments and projects

Following the implementation of software in the clearing house, the settlement of transactions is carried out automatically with commercial banks, on a multilateral basis (ACH). However, there is not yet distinction between gross and net settlement systems.

3.4. Retail system developments and projects

On the level of the Bank Commercial

- launching of new electronic products by certain banks such as the local and international (with the Visa and Master) debit and credit cards;
- Installation of ATMs and POS devices in some Supermarket, Department stores, restaurants, gas stations etc.

On the level of the Central bank, we should recognize that the oversight issues are still pending since initiatives on normalization and standardisation are not settled; the banks are implementing separately the modernisation of their payment services with the difficulty for the interoperability of different systems in the near future.

3.5. Mobile E-money and banking initiatives;

The firm Cell Pay, a payment services provider has implemented with some commercial banks a mobile payment services which use mobile phone with a particular SIM CARD.

4. LESOTHO

4.1. Introduction

Efforts to transform the Lesotho payment system to the one that is widely accessible, secure, reliable and efficient, and also that facilitates and supports the country's development objectives, continued to be undertaken in earnest. These are guided by the Vision and Strategic Framework document which intends to achieve this by 2015, through the Lesotho National Payment System Modernisation Project, spearheaded by the Central Bank, through the National Payments System Division, and undertaken in collaboration with banks and other stakeholders.

The aim of this report is to highlight the developments that have been achieved under the LNPS modernization project from April 2007 to March 2008.

As a step forward the Real Time Gross Settlement was implemented in 2006 and it is envisaged that Automated Clearing House (ACH) will follow. The ACH will not only automate the cheque payments but it will also enable transfer of funds through electronic means

4.2. Operational Issues

To date there are two payment and settlement systems in Lesotho namely the Real Time Gross Settlement (RTGS) called Lesotho Wire, and the Maseru Clearing and Settlement House (MCSH). Both systems are operated and administered and supervised by the Central Bank of Lesotho. Their operations are governed by their respective agreed upon rules. To ensure availability of these systems, their back up and test systems, are periodically tested.

The banking industry in Lesotho consists of the Central Bank at the apex, three commercial banks which are wholly owned by South African banks, and a fairly newly established Post Bank.

Except for the RTGS payments, cash and cheques continue to be widely used in Lesotho. Another worrying feature of the Lesotho payment system is that more than half of the population is unbanked or underbanked, hence the objective of the LNPS modernization project to reduce use of cash and paper instruments such as cheques, and to make banking services available or accessible to the majority of the population, especially in rural areas.

4.3. Settlement System Development and projects

It is now a year and four months since Lesotho's Real Time Gross Settlement System (RTGS), called Lesotho Wire (LSW), which went live in August, 2006. Taking 2007 as the first year of full-fledged performance in the LSW operations it was noted that volumes and values increased steadily from month to month. This increase could be attributed to the success of the workshops and public campaigns that were undertaken, coupled with the M100 000 limit that was placed on cheques.

Payment instructions processed through Lesotho Wire amounted to 13 422 with the total value of M37.1 billion, of which includes 1 992 participant debits valued at M13.5 billion and 1 983 participant credits amounting to M11.3 billion.

Efforts are underway to take advantage of the RTGS functionalities by exploring the possibility of introducing straight through processing. This is intended to cover Government instructions, the Central Bank accounting system/general ledger, and the Securities market operations.

4.4. Retail system development and projects

Now that the RTGS system, meant to address wholesale or large value payments, has been implemented, the focus of the LNPS project has shifted to retail or small value payments.

Preparations for the installation of the Automated Clearing House (ACH) Project are at an advanced stage. The project is going to be funded by the Millennium Challenge Corporation (MCC), from the United States of America. MCC's interest in funding the ACH is its potential to alleviate poverty by increasing economic activity, and by facilitating the extension of low cost financial services to the banked and unbanked in the country (mainly through the use of smart cards). It is envisaged that the ACH will use the infrastructure of a well established regional service provider in an effort to cut down costs and to pave the way for cross border payments and regional integration of payment systems.

The ACH is expected to cover the clearing and settlement of Electronic Funds Transfer (EFT), Cheque Code Line Clearing stream, Mobile banking, Smart Card payments, and Card payments (debit, ATM and credit cards). The roll out of these will be a phased approach. MCC will finance the initial set up costs for the ACH, the service provider's fees for the initial two years, the smart card and mobile banking infrastructure and point of sale devices for smart cards.

4.5. E-Money and mobile banking initiatives

It has always been the primary aim of the LNPS Modernisation project to drastically reduce the use of cash and cheques and replace them by electronic funds transfer mechanisms. And, the contemplated implementation of the ACH project is expected to facilitate the introduction of e-money and mobile banking. Included in the MCC funding is the smart card with its attendant points of sale (POS) devices which will be mainly located in post offices throughout the country.

Mobile phone banking will also be introduced to take advantage of the increased coverage by the mobile phone companies. As a result of this accessibility, more and more people in the rural areas now have cellular phones. In fact one of the banks has introduced this facility though not quite fully fledged.

As far as internet banking is concerned, all the three commercial banks provide this service, though at small scale since the majority of people have not installed internet at their places.

4.6. Oversight issues

Oversight of payment systems is a key element in the Bank's responsibility for the stability of the financial system as a whole. The bank's oversight role relates closely to its operational role as the provider of the settlement asset to some payment systems and as the ultimate provider of liquidity to the banking system and to the economy.

The oversight function is still at an infancy stage not only in Lesotho but in most of the SADC region. This was highlighted in the SADC Annual Regional Conference of 2007 wherein it was agreed that the focus on training should be on oversight, now that countries have implemented ACHs and RTGS systems. It was essential to ensure that oversight is exercised so as to abide by the core principles.

Lesotho has requested the IMF technical assistance to assist with the oversight framework and attendant manual of operation.

5. MADAGASCAR

5.1. Introduction

Financial system inadequacy facing economic agent needs and international competition has driven the Malagasy authorities to undertake reforms aimed at reinforcing the financial system in order to answer to larger financial needs, to offer a variety of instruments, to develop structures with regulations that can provide maximum safety.

Therefore, the Banque Centrale de Madagascar (BCM) has decided to modernize and to increase the safety and the efficiency of the payment system, with the support of the United States Government through Millennium Challenge Corporation (MCC).

5.2. Operational issue

In order to reduce the float during the clearing operations, a new system named SYRCOD (Settlement system based on decentralized clearing) has been settled since January 2007, which did not require specific investment but used the existing infrastructure of banks.

The system allows clearing operations in any clearing house since representatives from the two concerned banks are presents.

5.3. Settlement system developments and projects

The project of modernization of Madagascar Payment system has begun since 2006 and has been divided into 4 stages:

- Stage 1 Preliminary study with Consultancy support and commercial banks collaboration

This stage unfolded in two phases (Strategic study - Design determination) and was realized with stakeholder's participation especially commercial banks.

At the end of the Strategic study, it has been decided the implementation of two solutions:

- implementation of an automatic clearing house and dematerialisation,
- implementation of Real Time Gross settlement (RTGS)

The second phase Design determination aims at defining:

- Functioning specification of subsystems (RTGS and Automatic clearing House)
- Conditions of adherence into the 2 subsystems
- Standard specification to apply
- Modification of legal and regulated framework
- General principles of implementation: identification of the impacts of organisational system

▪ Stage 2 User Requirements preparation

Four user requirements have been formulated on the base of the preliminary study results. Since then the process of recruiting service provider to install and deliver materials is on going for the following reforms:

- Real Time Gross Settlement based on international standards (functions, treatment procedures, safety procedures and performance);
- Centralised clearing and dematerialisation system based on international standards;
- Telecommunication services for RTGS and clearing interbank networking;
- Networking equipment and interbank networking infrastructures for central transactions.

Invitation to tenders has been launched on 28th September 2007; opening and sorting of tenders began on 26th November 2007 and arrival of the service provider is expected on April 2008.

- Stage 3 Materials and service delivery

(a) RTGS

In terms of the implementation of RTGS, the service provider is expected:

- To deliver software and computer equipments including management functions and transaction supervisory techniques for the central system.
- To deliver software and equipments for the platforms of Participants.
- To implement and test the central system and the Platforms of participants.
- To assist the Banque Centrale de Madagascar (BCM) during the first 3 months of the implementation.
- To train, provide documents and knowledge transfer to the BCM and the participant Staffs.

(b) Retail payment system

The Terms of Reference related to the Centralised Clearing and retail payment system include the following points:

- Supply and installation of hardware and software equipments which ensure interbank clearing of retail payments.
- These equipments concern both central clearing system and platforms of participants and they will be installed in each participant Head office.
- Supply and installation of numerical tools for payment operations to dematerialize paper instruments (cheque and commercial paper) versus electronic processing.
- These equipments concern Agencies and pre clearing system of the Head office of the BCM.

- Interface installation.
 - Preparation of test environment, production and assistance.
 - Methodology of test, assistance on functional revenues to BCM .
 - Training.
 - Documentation.
 - Maintenance: software, software package and hardware.
 - User assistance.
- Stage 4 Operationalization of the new system

The new systems are expected to be operational on the first half year of 2009. Reforms of the regulatory and legal framework, information, and internal organization are already undertaken.

5.4. E-money and mobile banking initiatives

At present e-money and mobile banking initiatives do not exist in Madagascar. Payment card has been used since 1997 but few part of the population use this means of payment until now.

According to the study:

- The existing interbanking in Madagascar is sufficiently enough due to the opening of cash dispenser and visa electronic payment terminal;
- Domestic interbanking is not a lever to increase number of card transactions.

As a result, banks do not urge to set an independent interbanking apart from international network in the short run. In fact, fees are paid by card holders when they withdraw cash from another bank ATM than theirs.

Visa cards represent only one third of the total cards issued in Madagascar.

5.5. Oversight issues

As it is stipulated in BCM's Status in 1994 "The Banque Centrale de Madagascar shall ensure the well functioning of the payment system"

The BCM is responsible for implementing clearing houses where it is appropriate and ensuring presidency of clearing houses.

Financial institutions and commercial banks which have accounts at the BCM can participate in the clearing houses. At present, this is the only arrangement of control and supervision for payment system in Madagascar.

6. MALAWI

6.1. Introduction

During the period April 2007 to March 2008, the Reserve Bank of Malawi (RBM) carried out a number of activities aimed at strengthening the operations of the National Payment System (NPS). Recognising that a well functioning and efficient payment system is a prerequisite for the attainment of monetary and financial stability objectives of the central bank, the RBM focused its attention on formulating the NPS Oversight Policy during the period under review. The NPS Oversight Policy will be the guiding principle in the execution of oversight activities by the RBM.

The RBM continued to play the leadership role in payment systems activities which included, among others, ensuring that the National Payments Council (NPC) meets regularly and that members discuss critical issues openly and objectively. The RBM also coordinated meetings between payment systems stakeholders, IMF Technical Advisors and the Financial Sector Assessment Programme (FSAP) Team.

6.2. Operational Issues

The NPC Steering Committee tackled a number of operational issues through its scheduled quarterly meetings at which reports from the sub committees were submitted and discussed. Among the issues reported and discussed included the revival of the project to establish a centralised National Cheque Archives for storage of physical cheques, successful disaster recovery testing of the Electronic Cheque Clearing House (ECCH), progress on the registration of the ECCH as a limited liability company and strategies to be implemented for a speedy enactment of the NPS Bill.

The Steering Committee also realised the need to review the NPS Vision and Strategy Framework. The revision exercise will focus on elements that require coordination and commitment from several stakeholders in the payment system. A Task Force is also due to be formed to review the structure of the NPC. This follows the recommendation by the IMF under the Technical Cooperation.

6.3. Settlement System Developments and Projects

6.3.1 Real Time Gross Settlement (RTGS) Operations

The RTGS throughput for the period under review amounted to K1.5 trillion (USD 10.5 billion) as opposed to K1.8 trillion (USD 12.6 billion) recorded in the previous review period, representing a 16 percent decrease. The volume of transactions, on the other hand, reflected a decrease of 23 percent to 83,815 from 109,558 recorded in a similar period last year.

In terms of system utilisation, the value of single Funds Settlement Instructions (FSIs) constituted 78 percent of the RTGS Throughput while cheques and smart cards respectively accounted for 22 percent and 0.07 percent. In a similar period last year, FSIs accounted for 79 percent while the share value of cheques and smart cards was 20 and 1 percent respectively.

Banking and Payment Systems Department is investigating the cause of the reduction in both volume and value of transactions. However, the initial impression is that the decrease could be attributable to tight monetary and fiscal policies implemented during the period under review.

6.3.2. Projects and other issues in progress

As highlighted in the previous report, the RBM embarked on the integration project with the aim of maximising efficiencies in the settlement system. The RBM intends to interface the RTGS system with its banking application – MIDAS. The project is in the testing phase.

The RBM also carried out an analysis of the value and volume of ECCH transactions. The analysis revealed that there are some high-value cheques cleared through the ECCH. The data analysis was sent to Bankers Association of Malawi (BAM) and a meeting is yet to be scheduled to discuss and agree on the implementation of the value cap. The meeting will also discuss treatment of Malawi Government payments in view of the proposed value cap.

While payments through the RTGS are processed on a real time basis among the RTGS participating institutions, the same principle however does not apply to funds transferred by commercial banks on behalf of their clients. Stakeholders observed that there is no agreed industry-wide time frame within which payments effected on behalf of clients should be credited to the ultimate beneficiaries' accounts. RTGS participating institutions are yet to agree on the minimum time frame within which clients' funds should be applied in their accounts.

6.4. Retail System Developments and Projects

The major issue that dominated retail payment systems agenda was the implementation of interoperability of ATMs. The NPC established a Task Force comprising senior and experienced officers from commercial banks and MALSWITCH. Meanwhile, banks operate ATMs and point of sale (POS) devices on a stand-alone basis. This tends to force clients to hold multiple cards to access different card payment schemes. Interconnectivity of ATMs and POS will therefore enable clients to

possess one card and access their accounts through ATMs of other banks. An RFP for the interoperability project is yet to be issued.

In order to maximise gains from automation, the NPC Clearing Management Sub-Committee is also investigating the possibility of capturing deposit slips and effecting low -value credit transfers through the ECCH.

6.5. E-money and Mobile Banking Initiatives

One of the objectives of payment systems modernisation initiatives in Malawi was to reduce reliance on cash as a payment instrument. In line with this objective, Malawi implemented the chip-based smart card scheme in 2002. In addition to using it as an ordinary ATM card, the smart card can hold electronic cash on the micro-chip and the value is also reloadable. The impact of the smart card on cash usage is yet to be assessed.

In order to promote the use of cards as opposed to cash, the NPC established a Task Force to review issues affecting card usage and recommend strategies to increase the market penetration of card based payment instruments. Membership of the Task Force includes the RBM, MALSWITCH and Government. The Task Force already presented its preliminary findings and recommendations to the NPC Steering Committee as well as the NPC National Executive Committee. More detailed work will be carried out in the coming year.

Malawi also recognises the importance of bringing banking services to the rural poor or low income clients. Owing to the geographical nature of the country and the state of roads in most parts of Malawi, it is appreciated that banks find it uneconomically viable to set up a branch in rural or

undeserved areas. This, coupled with the need to offer efficient financial services to a large number of clients in the microfinance industry, makes mobile banking more attractive than conventional banking.

In Malawi however, mobile banking is in its infant stage with only three banks out of nine offering mobile banking services based on additive model. The facilities are however restricted to informational services only like balance enquiry. There is therefore need for the relevant stakeholders including the RBM as a payment systems regulator to explore ways of setting up an enabling environment for the two mobile network operators – Celtel Malawi and Telekom Malawi to venture into transformational/branchless banking models.

6.5. Oversight Issues.

One of the major activities undertaken by the RBM during the period under review was the formulation of the NPS Oversight Policy. The Policy was prepared with assistance from the IMF Technical Cooperation through the Bank of Norway.

Since the Policy applies to the entire industry, the RBM made wider consultations with the relevant stakeholders through the NPC Steering Committee. The draft Policy Document was circulated to all members for their input after which it was submitted to Senior Management of the RBM for further review. In view of the national importance of the systems to be overseen, the Policy Document was presented to the highest policy decision making body of the RBM - the Board of Directors. The Board discussed and endorsed the Policy in December 2007 and its implementation was with effect from 1st January 2008.

The RBM designated the RTGS and the ECCH as systemically important payment systems (SIPS) which must conform with the Core Principles for Systemically Important Payment Systems (CPSIPS). The smart card scheme, on the other hand, was classified under payment systems of system-wide importance (SWIPS). The classification of smart card scheme is based on the premise that the volume of transactions processed are high while the value (per transaction) is generally low and that its failure is unlikely to generate financial shocks in the economy.

6.7. Conclusion

The RBM continued to play a leadership role in payment systems reform initiatives over the period under review. The NPS Oversight Policy will be the guiding principle of RBM's payment systems oversight activities and its implementation is a major milestone in ensuring that the NPS in Malawi is not only efficient and effective but also conforms with international best practices. Since the majority of the population lives in rural areas where there are no banking facilities or limited banking facilities, there is need for the RBM to work with the relevant stakeholders to look into possibilities of introducing transformational/branchless banking models in the country.

7. MAURITIUS

Introduction

This report summarises the activities carried out by the Bank of Mauritius in the Payment Systems during the April 2007 to March 2008. During this period a number of structural changes have been made to the operations of the Bank of Mauritius. The Accounting Budgeting & Payment System Department has been re-structured to segregate accounting and payment system functions. The new Payment System Division has taken over all management and operation-side activities related to Payment Systems. This division also integrates the Mauritius Credit Information Bureau (MCIB) which plays an important role in financial stability by helping control over-indebtedness.

The Financial Stability Unit has been created to ensure that the Bank fulfils its statutory function to promote financial stability in Mauritius.

Operational issues

The Bank of Mauritius has successfully migrated to SWIFT Net phase II – replacement of card reader by Hardware Security Modules (HSMs) for connection to SWIFT. The next target, scheduled for June 2008, is to migrate towards Relationship Management Application (RMA) which will replace the Bilateral Key Exchange.

Settlement System developments and projects

Cheque Truncation

With a view to further modernising the Payment System in Mauritius, the Bank has embarked, together with commercial banks, on a cheque truncation project.

Cheque Truncation represents a paradigm shift in the processing and clearing of cheques whereby recto and verso images of cheques are captured and forwarded by electronic means to the paying bank for clearing. The Cheque Truncation project is expected to go live in August 2008.

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. Commercial banks operating within COMESA member states should then be able to send and receive cross-border payments in local currency via their central banks. This project is currently under beta testing.

Retail system developments and projects

All commercial banks in Mauritius use standard packages for core banking and as such offer similar products and services. Ten out of twelve commercial banks provide 24 hour banking facilities through their ATMs and all banks issue credit cards to their customers through VISA and Mastercard.

The Bank of Mauritius recently launched a financial literacy programme which included the free issue of issue of booklets dealing with the various services offered by the central bank. The public was also apprised of its rights towards commercial bank products like loans, deposits, mortgages and credit cards. This programme received positive response from the public and customer protection agencies and will now become an annual feature.

E-money and mobile initiatives

Currently, two major commercial banks provide internet and mobile banking facilities to the public. One bank provides internet banking to corporate customers only. The internet banking portal allows common transactions like funds transfer, account checking, statement downloads etc. to be effected. The two main mobile telecommunications service providers have agreements with the two major banks to allow pre-paid SIM cards to be topped through SMS. One Bank further enables account balances to be checked through this facility.

Oversight issues

In terms of the Bank of Mauritius Act, the Bank of Mauritius has to ensure the stability and soundness of the financial system of Mauritius and one of the means of achieving this objective is through the oversight of the payment system. Further, the Bank of Mauritius has the responsibility of promoting the safety and efficiency of existing and planned systems, assessing them against objectives set and, where necessary inducing change. The oversight function is conducted by the Payment System Division in close collaboration with the Banking Supervision, Financial Stability Unit, Financial Markets and the Banking and Currency Divisions.

The ongoing oversight function comprises the collection of information from daily reports on the movement of liquidity among participants of the MACSS and data from other sources, the analysis of the information and the initiation of actions as appropriate. The Participant procedures of the MACSS further require participants to report to the Bank;

1. All disaster recovery and business continuity plans to the Bank on a yearly basis.
2. Technical or operational problems that prevent Banks from it from processing payments

The Mauritius Credit Information Bureau provides participants with updated information to assist them in making informed and responsible lending decisions in a more timely fashion to ensure the safety and soundness of the financial sector.

8. MOZAMBIQUE

8.1. Introduction and Project Management Issues

The National Payment System (NPS) Project development and implementation is guided by the Strategic Framework Development Plan which was in force until December 2007. This is the major tool and guidance for all the activities in view to achieving the defined and underlined strategic objectives. As time and circumstances change, the mentioned Strategic Plan is subjected to revision in order to incorporate new realities.

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

This is the umbrella of the actions and activities of the Bank strategic Plan

8.2. Operational Issues

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

- i. MICR –E13B automated clearing cheques and other related debit payment instruments;
- ii. National inter-banking debit cards clearing systems;
- iii. Visa national clearing system;
- iv. Government electronic payment system
- v. Money market system
- vi. Stock exchange system

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

8.3. Settlement System Development and Projects

Although Banco de Moçambique is 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 has already automated most of its payments streams/subsystems. All it needs is to get all the subsystems of the NPS built under one settlement system 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 its live production.

At the business and commercial side the full regulatory framework and as well as the procedures and operating rules has been prepared awaiting the approval by the board of the central bank.

In a macro level the National Payment System Draft Act has been approved by the Parliament pending the promulgation by the Head of State, which is expected to be done soon.

It is expected that in the current 1st Quarter of the year the software application will have been fully tested and by the end of June 2008 the full NPS infrastructure will be live.

8.4. Retail System Development and Projects

The bank domain in the NPS strategic framework is the systemic risk mitigation, thereby putting in place a system that is safe and efficient.

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

- vii. National inter-bank debit cards clearing systems (Interbancos – Ponto 24);
- viii. Visa National Net Settlement system (MOZ-MNSS), which went live in March 2007, and the Banco de Moçambique is the Settlement Agent.

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.

From another hand, the Banco de Moçambique has introduced the Clearing and Settlement System of Electronic Funds Transfer (EFT), anticipated by the obligation of the use of Bank Identification Number (NIB) to allow for more security to the system and clearing information.

Equally, it has been introduced to the MICR code line information the control digit, a security algorithm for the Cheques clearing system.

Negotiations among commercial banks are being carried out to allow for the creation of an Automated Clearing House for the major payment instruments and perform other functions, regarding retail payment systems.

8.5. E-money and Mobile banking initiatives.

Some individual banks do provide limited mobile services for bank statements, balance inquiring and electronic funds transfers. Initiatives in this field are in a very incipient phase.

8.6. 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 in operation countrywide since November 2003.

The Bank of Mozambique strives to ensure that risks associated with payment and settlement systems are kept at an acceptable level. 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 parties involved and the key rules that will help to minimize the credit exposures produced by the participants.

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

The Bank of Mozambique is in the process to formalize, in the near future, the payment system oversight function as a unit within the Currency and Payment System Department (DEP). Payment system oversight will include the development of risk assessment as well as help assessing the reform process against the international best practices and standards such as the core principles

for systemically important payment systems. The risk assessment will be performed through the use of the Payment and Settlement System Simulator (BoF-PSS2) developed by Bank of Finland. The simulator is designed for analysing liquidity needs and risks in payment and settlement systems. It has proved to be an excellent tool for conducting a variety of payment system analyses and for studying liquidity needs and systemic risks.

9. NAMIBIA

9.1. Introduction

This report provides an overview of the Bank of Namibia's (the Bank) activities aimed at promoting a safe and efficient national payment system in Namibia. The report highlights activities, which the Bank performed in payment system reform and payment system oversight over the period from April 2007 to March 2008.

9.2. Operational Issues

The Bank, 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 2007.

On implementation of remaining payment system reform projects particularly the Card switching system project, the industry is faced with few project management issues and operational challenges. The normal project management issues experienced were resources and skills.

9.3. Settlement Systems Development

The Bank of Namibia provides the real-time interbank settlement service to the Namibian banking institutions through the Namibia Inter-bank Settlement System (NISS). All high-value (>N\$5 million) inter-bank payments must be made through the NISS. Other payments that are currently settled through the NISS are domestic cheques and electronic funds transfers, while efforts are under way to

settle all card transactions as well once the Namswitch become operational at the end of April 2008.

NISS experienced 3% growth in volume and 17% increase in value of transactions in 2007, which is consistent with the Bank's initiative to encourage the settlement of more time critical transactions through NISS. Consistent with its core role, NISS, availability remained very high for 2007 and is broadly in line with those reported for large value systems in other countries. The Bank continues to provide sufficient collateralized liquidity to the participants through the intraday and overnight REPO facilities.

9.4. Retail systems developments and projects

9.4.1. Card Switching System Project

One of the major projects still outstanding as part of the national payment system reform, is the Card Switching System project. The objective of this project is to establish a Namibian switch to route all Namibian inter-bank domestic card transactions for ATMs and Point-of-Sale terminals for settlement in NISS at Bank of Namibia. Currently these transactions are routed through Saswitch for settlement at the South African Reserve Bank. The project Charter, business and technical specifications have been agreed and signed-off in 2007.

9.4.2. Implementation of 5 day national cheque clearing cycle

Following the implementation of Code Line Clearing System (CLC) in 2005, the Namibian banking industry resolved in December 2007, to introduce a national five day cheque clearing cycle, which will facilitate quicker access to funds for banks' customers. The banking industry has agreed on a single courier service provider for the delivery of cheques from all rural branches to Namclear in Windhoek. The single courier service provider has been contracted effective from 2 January 2008, and a Project Steering Committee has been established to

implement this project. The industry agreed on three months period to resolve all issues related to this project. The live implementation date of 1 April 2008 has been agreed to.

9.4.3. Feasibility study on imaged-based cheque truncation for Namibia

In August 2007, the Namibian banking industry completed a feasibility study on imaged-based Cheque truncation. The outcome of the study was that in light of the declining volumes in cheque payment stream, it is not feasible to implement imaged-based cheque truncation in Namibia. The banking industry agreed to monitor the trend in cheque volumes and establish a long-term strategy for cheque as a payment instrument in Namibia.

9.5. Oversight Issues

The Payments Association of Namibia (PAN), which is a statutory Payment System Management Body, was legally constituted in terms of the Payment System Management Act and commenced its business on 13 October 2005. PAN is tasked with the technical management and regulation of the National Payment System and has the responsibility to manage the National Payment and Clearing Systems within Namibian National Payment System.

Since its inception PAN is faced with many challenges which hindered its operational progress, roles and responsibilities as envisaged in terms of the Payment System Management Act, 2003 (Act No. 18 of 2003). The current PAN management and working committees consist of people 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 skills regarding payments by the majority of the members, makes the understanding of their respective mandates difficult. Lack of funds and proper operational budget is also an additional obstacle faced by PAN. Therefore in August 2007, the Bank of Namibia 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 will take over the Chairpersonship and Secretariat function of PAN. The office of PAN will be hosted at Bank of Namibia and the Bank will fund half of the operational budget of PAN and the Bankers Association the other half.

On 6 July 2007, the Bank issued a Directive and a Determination in terms of Payment System Management Act, 2003. The Directive relates to EFT transactions, and is to notify all Namibian registered companies, which are routing Namibian dollar transactions through South African Payment Clearing House (Bankserv) to implement the necessary system changes for the submission of all Namibian domestic EFT transactions through Namibian Payment Clearing House (Namclear) for final settlement in Namibia Inter-bank Settlement System (NISS). The Directive became effective date on 31 December 2007.

The Determination regulates the issuance of payment instruments in Namibia. It ensures that no entity issues a payment instrument without adhering to the standards and requirements prescribed by the Bank prior to receiving the authorization of the Bank. In addition it enables the Bank to collect statistics relating to the type, distribution, volumes and values of payment instruments that will assist in the undertaking of payment system oversight.

Since 2007, the Bank is taking a keen interest in, and closely monitoring, the activities of payment services providers, payment collectors and payment facilitators in the national payment system. The proliferation of non-bank financial intermediaries operating outside the regulatory framework could lead to the undermining of the stability and integrity of the national payments system should no effective regulatory framework be put in place that would also regulate non-bank financial intermediaries

In 2007, The Payments Association of Namibia (PAN) has successfully completed the assessment of Smartswitch Namibia¹, Namclear and RealPay² in line with the set entry criteria and has granted authorization in terms of section 3(6)(a) of the Payment System Management Act, 2003, to operate as a payment services provider. In the past Namclear has been operating under the authorization provided by the Bank in 2004.

In 2007, PAN considered request for authorization from “Electronic Data Solutions” (EDS) to offer value added services to retailers by switching financial transactions from the retailer to the appropriate banking institution. All acquiring and settling of the transactions will still be undertaken by the banking institution. The PAN approved their application on condition that, EDS comply with the minimum requirements for service providers.

9.6. E-money and mobile banking initiatives

In October 2006, the Bank authorized Namibia Post Limited (NamPost), to issue electronic money. NamPost has issued smart card³, to all its customers on which electronic money is loaded equivalent to the balance in holding account. NamPost’s clients can use smart card to purchase goods and services at retailers where Smartswitch has rolled out the point-of-sale terminals. The Determination on payment instrument that the Bank issued also applies to e-money because a smart card is a payment instrument. This determination

¹ Smartswitch Namibia is a joint venture company between Namibia Post and Net1 UEPS Technologies operating the Universal Electronic Payment System (UEPS) smart card-based switching system in Namibia. Net1 UEPS Technologies is an international company that deals with the use of technology in financial services in developing economies.

² RealPay” is as an “alternative payment solution provider” whose solution is designed to be utilized by micro-lenders in an endeavour to dispense with the practice of micro lenders retaining clients’ ATM-card and PIN

³ Smart card is replacing clients' savings books with smart cards. All current Namibia Post banking products will be transferred to the smart card, which, according to the Nampost, will offer security, simplicity and flexibility.

ensures that no entity issues e-money without adhering to the standards and requirements prescribed by the Bank.

Mobile banking has taken-off in Namibia in 2006 with the launch of Bank Windhoek mobile banking product in December 2006. First National Bank of Namibia launched its mobile banking service in April 2007. Transactions originating from mobile banking are submitted through EFT payment stream to Namclear and settled in NISS similar to internet banking transactions via the Electronic Funds Transfer payment mechanism. The services offered includes: buying prepaid cellphone airtime; topping up from contract cellphone to any prepaid user; paying any account or anyone else, for example third party payments; transferring money between accounts; getting a mini statement, and checking account balance.

The Bank's view at this point in time is to closely monitor developments in mobile payment technology. It is predicted world-wide that a cell phone will become a fully fledged payment instrument in future and consequently payments will be honored from funds on a chip in the cell phone. In future, authorization to roll-out such mobile payment mechanism will be regulated through the current determination on payment instrument issued on the 6th of July 2007.

9.7. Conclusion

For the year 2008, the focus of the Bank and banking industry will be on the following payment system reform projects and oversight activities:

- Continuing with the practical implementation of the oversight framework, by *inter alia* developing guidelines, procedures on how to carry out oversight on a micro and macro-level, i.e. oversight in practice; and defining the scope of ongoing oversight tasks (day-to-day collection of

data, incident follow up, ex-post statistical analysis, on-site inspections etc)

- Implementation of Card Switching System by April 2008 to cater for domestic inter-bank card transactions at ATM and POS.
- As bulk settlement is still a significant portion of the total settlement in NISS the Bank still regards it as a systemically important payment system. The Bank in consultation with PAN will continue to implement outstanding risk-reduction measures and “failure-to-settle” arrangements in retail payment batches.
- Implementation of 5 day national cheque clearing cycle in order to provide speedily access to customer funds.
- Implementation of interim arrangements for PAN to ensure efficient functioning of PAN as envisaged in the Payment System Management Act, 2003
- The Bank continues to monitor the activities of payment services providers, payment collectors, and payment facilitators in the national payment system. Further research and assessment will be undertaken, and where applicable directives or determinations will be issued.

10. SOUTH AFRICA

10.1. Introduction

This report is a summary of payment-related initiatives of the South African Reserve Bank (the Bank) from April 2007 to March 2008.

South African payment-related initiatives during the period included the continued development of 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.

10.2. 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.

10.3. 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.

10.4. Retail system developments and projects

The growth in the value of payments settled in the SAMOS system for the year 2007, over the value settled in 2006, was 14 per cent. The increase for Real-time Line settlement was 14 percent. The Real-time Line settles 90 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. Cheques increased by 12 percent, EFT debits by 10 percent, EFT credits by 23 percent, debit cards by 26 percent and credit cards by 20 percent.

Commercial banks were required to comply with the requirements of the early debit order (EDO) Directive by the end of 2007. The EDO directive published in 2006 required banks involved in the collection of payment instructions in the EDO PCH to randomise all payment instructions and phase out any preferential processing of debit orders by the end of 2007. This required banks to make changes to their systems and, in certain instances, to their procedures and processes.

The Bank launched a project to improve and test its business continuity plans (BCP) and disaster recovery (DR) procedures, practises, facilities and capabilities. This was successfully completed during the year.

10.5. 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.

There has been a significant growth in the prepaid gift card market, 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 is a lot cheaper than the usual banking products.

10.6. Oversight issues

The NPSD oversight division conducted on-site oversight of the PCH operators, BankServ and STRATE. This was the first time it had done so. The NPSD team set out to determine if the clearing functions at each of the institutions was safe and robust. The oversight team was satisfied with the overall quality of the operations and governance of the institutions.

Recently the role of non-bank stakeholders has become more prominent in the payment system both domestically and internationally.

In September 2007 the Bank issued directives aimed specifically at the conduct of non-bank stakeholders operating in the payment system, which had up to then operated in a mostly unregulated environment. The directives, which became effective on 6 December 2007, required compliance with basic operational risk reduction measures including the requirements for DR and BCP. These measures were aimed at ensuring continued safety and efficiency in the NPS.

The National Payment System Advisory Body (NPSAB) was formed during the period under review and is chaired by the Bank. 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 National Payment System more effectively.

The common monetary area (CMA) countries, Lesotho, Namibia, Swaziland and South Africa have jointly developed a terms of reference to govern the management of risks and oversight initiatives in the common area. Agreements pertaining to cross-border correspondent banking agreements are being finalised.

10.7. Conclusion

The revised vision and strategy “Vision 2010” 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.

11. SWAZILAND

11.1. INTRODUCTION AND BRIEF OVERVIEW

This report covers the country's National Payment Systems restructuring activities from the 1st of April 2007, to the end of March 2008, as prescribed by the SADC Payment Systems Project Committee for the annual Committee of the Central Bank of Governors meeting.

During the past ten months, Swaziland was and is still involved in a number of various payment system reforms as outlined in the country's Vision and Strategy Framework Document that was launched in November 2000. The main and major milestone was the full implementation and switching on of the Real-Time Gross Settlement System known as the Swaziland Interbank Payment and Settlements System on the 15th of June 2007. The next important project to be fully implemented during the calendar year is the Oversight of Payment System to fully discharge our statutory mandate of promoting, regulating and supervising the efficient and secure operation of the payment system as per Central Bank of Swaziland Act of 1974 as amended in 2004.

11.2. OPERATIONAL ISSUES

11.2.1. PLASTIC CARDS

The use of payment cards is still very low and they are issued mainly by the South African banks to their subsidiary banks customers in Swaziland. There is a need to establish a common local switch infrastructure for all the ATMs, debit and credit cards and the point of sale transactions to reduce the use of both paper based payment instructions and heavy reliance on the cash payments. This strategy will

concurrently increase the volumes and values of electronic payments in the SWIPSS and mitigate the financial and settlement risks the payment system.

11.2.2. SOUND LEGAL FRAMEWORK

The Central Bank will always ensure that there are binding operating rules and regulations in place to provide for the smooth operation of the payment system. Both rules for the SWIPSS/RTGS and SAECH Systems have been signed by all the participants. The SAECH rules have just been reviewed to embrace the item value limits and the further reduction of the clearing circle. A Service Level Agreement between the participants and the Systems Operator as the Settlement Provider is in the process of being signed by all parties to ensure observation of Core Principles.

The National Clearing and Settlements System Bill of 2005 is still awaiting Promulgation. This Bill will provide for the recognition, operation, regulation and supervision of systems for the clearing of transfer instructions between financial institutions.

11.2.3. 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 the (CMA CPOC). The objective of this CMA CPOC Committee is to oversee the arrangements regarding the flow of payments instruments between the CMA countries and to ensure compliance with the international standards for cross-border payments. Swaziland is now at an advanced stage of finalizing the CMA Correspondent Banking Agreement and

establishing the Payment Association of Swaziland (PASWA) which is required for membership to the CMA CPOC Committee. The correspondent banking agreement will promote the efficient management of processing and settling cross-border payment instruments whilst PASWA will be a management body or committee, whose objective will be to organize, manage the participation and interests of its members in the payment system.

11.2.4. CASH-BASED PAYMENT

Cash is still the most widely used form of payment for both internal and cross border payments in the Common Monetary Area because of being instantly acceptable and for its real-time settlement benefits. Luckily our Emalangeni Notes have had a low rate of counterfeiting attacks. However, there is an urgent need to promote the use of non-cash payments especially the cards and electronic payment to enhance the integrity of our payment system and also bank the unbanked population in the rural areas. The Central Bank of Swaziland is considering strategies of shifting the public from the heavy reliance of cash payments to the use of plastic money.

11.2.5. PUBLIC DISCLOSURE

The Central Bank has lodged both the SWIPSS and the ECH rules in both the intranet and website. The Vision and Strategy Document has also been lodged to meet the best practices requirements and a few articles are also available to educate the staff and the stakeholders on National Payment Systems and Developments. The Core Principles are also included in both intranet and website for the continuous sensitization of the financial industry and all other stakeholders.

11.2.6. HIGH BANK CHARGES

The country's bank customers are suffering from the escalating bank charges which have become a regional and or global pandemic. There is a continuous public outcry of the high charges on services offered by banks including depositing or withdrawing cash. The central bank does not charge the banks for either depositing or withdrawing the local currency. The exorbitant charges are motivating the public to bank their cash under their mattresses.

The Central Bank of Swaziland as the SWIPSS Owner, Operator and Settlement Provider currently charges from R/E5.00 the first SWIPSS window to R/E15.00 during the last window to process inter-bank real-time payment instructions. Since going live on the SWIPSS System, all the banks have increased the Swift charges for all outgoing SWIPSS/Swift payment instructions and the central Bank is closely monitoring all the charges.

11.2.7. NATIONAL PAYMENT SYSTEM SUPPORT STRUCTURES

The Bank is considering reviving the National Payment System's Council and its Sub-Committees. The NPS Council Committee will give direction and oversee the NPS Modernising Programme. Currently there is the Bankers Committee as a supreme body whose membership is from the Bank's Chief Executive Officers. Below this committee is a Bankers Technical Committee that seeks to address issues of a technical nature which include policies, formulation and review of rules and regulations of the payments systems. This committee is accountable to the Bankers Committee.

11.3. SETTLEMENT SYSTEM DEVELOPMENT AND PROJECTS

The Central Bank of Swaziland is proud of being the 11th SADC country to have successfully implemented the Real-time Gross Settlements System within eleven months to June 2007 in spite of the delay that was attributed to hardware delivery of the Cisco Routers, and the leased line during the user acceptance Testing period to cut down on exorbitant swift charges. The system has a local brand name of “Masheshisa”, which means the fastest. The launching was graced by the presence of the Minister of Finance on the 5th of October 2007, at a high note function that included about three hundred and fifty corporate customers and esteemed members of the financial industry.

Since inception in June 2007, to the 31st of January 2008, the SWIPSS/RTGS has processed and settled a total volume of 9,778 transactions with total values of E23.4 billion with a daily average of 61 transactions valued at E147.2 million. The System currently processes about 1.3% interbank payment instructions.

11.3.1. COLLATERAL SECURITY

The Central Bank has implemented a mandatory monthly collateral security of short-term treasury bills to be lodged and pledged to the Central Bank based over a three months revolving average of the participants highest net debit settlement, plus 10% to guarantee a timely final settlement of the clearing batches.

During the day, the Bank extends an Intra-day Loan Facility (ILF) that is covered by the drawn down of the daily Statutory Minimum Reserve Requirements that must be restored before the final cut-off. The intra-day may be converted into an inter-day facility at a repo rate. Failure to

reverse the repo facility by 9.00 a.m. the Central Bank is empowered to liquidate the collateral security to settle the outstanding debt.

11.3.2. STRAIGHT THROUGH PROCESSING

This is an interface that will link the SWIPSS/RTGS system with the bank's core banking system to enable a real-time settlement of the funds into the customers' accounts without any human intervention.

The Central Bank and the banks have been developing the interface for the past three months and currently, the central bank's interface occurs every hour to the Globus Core Banking System instead of the end of the day. All the banks are required to fully implement the Straight Through Processing by the 1st of April 2008, to ensure that customers at large also enjoy the benefits of the electronic, real-time, safe and fast transmission of funds.

11.3.3. BUSINESS CONTINUITY MANAGEMENT ISSUES

The Central Bank is at an advanced stage of implementing the banks' Business Continuity Plans and the Disaster Recovery Site in Manzini which is about 36 kilometers from the Primary Site in Mbabane which includes the SWIPSS System.

The RTGS/SWIPSS Steering Committee is also at an advanced stage of implementing the SWIPSS/RTGS Business Continuity Plans and Disaster Recovery Site of all the participants and the Settlement Systems Operator as required of internal best practices. The plan is very comprehensive and covers all the relevant aspects of the Business Continuity Management required to ensure continued execution of business processes of the SWIPSS operations in the event of disaster.

The Disaster Recovery tests of the SWIPSS System technical infrastructure will be conducted by the end of March 2008.

11.3.4. FUTURE DEVELOPMENTS IN SWIPSS/RTGS

The Central Bank has started consultations with the Ministry of Finance's Treasury and Income Tax departments to assess their needs in preparation for linking them to the SWIPSS/RTGS.

The Revenue Authority Act has just been enacted and the Commissioner of Taxes would like the central bank to add the Tax Payment Stream to the SWIPSS/RTGS so that the Taxpayers can pay taxes electronically to eliminate or reduce the use of cheques.

11.3.5. PUBLIC SENSITIZATION

The Bankers Technical Committee which includes the Central Bank was involved in various public awareness campaigns to educate the public and the stakeholders on the National Payment System's reforms. Two months before going live on the RTGS/SWIPSS there were Newspaper articles and Newsletters. During the launching week there were additional various forms of public sensitization programmes ranging from the Newspaper articles, Print Media and on the launching day Corporate Gifts of Pens, Golf Shirts and Newsletters to big banners, SWIPSS poems and songs by various art groups. The presence of the Minister of Finance to launch the system was the greatest blessing to the financial industry especially to the Central Bank's Top Management and the National Payment System office.

The public sensitization will be further strengthened after the full implementation of the Straight Through Processing as that is the only time when the Central Bank can guarantee to the public the real-time

payment and settlement of their payment instructions within an hour of receiving the payment instructions.

11.4. RETAIL SYSTEM DEVELOPMENT AND PROJECTS

11.4.1. SWAZILAND AUTOMATED ELECTRONIC CLEARING HOUSE (SAECH)

The electronic clearing house was automated in November 2001. It is still one of the Systemically Important Payment System as it still facilitates the electronic debit clearing of about 98% of the inter-bank clearing instruments. The volumes and values of paper based inter-bank payment instruments cleared in the Electronic Clearing House have marginally decreased by 6.5 and 2.6 percentages respectively for the same periods of nine months from April to December 2006 and 2007. This reduction is attributed to the implementation of the item value limit of E1 million for all the paper based instruments and the introduction of the Real-Time Gross Payment System in June 2007.

11.4.2. INTRODUCTION OF ITEM VALUE LIMITS

The Central Bank of Swaziland with the banks introduced a debit item value limit of 1 million Emalangeni (which is equivalent to US dollars 130,599.45 at today's rate of 7.657) to remove the high value exposure from the clearing system. All cheques above the limit cap are specially presented and settlement done on same day and electronically on the RTGS/SWIPSS System to speed up settlement and reduce the settlement risk in the payment system. However, the implementation of the debit caps still has great challenges as there is slow adaptation by the banking industry and the Government Treasury which has requested for an extension period to upgrade its systems to embrace the changes.

The clearing cycle has also been further reduced from T+4 to T+3 country-wide effectively from the 1st of July 2007.

11.4.3. SAECH DISASTER RECOVERY SITE

The electronic clearing house back-up site was upgraded in August 2007, through the installation of an Uninterrupted Power Unit (UPS). This unit is important for backing up the load in case of power failures due to the load shedding. In November, 2007 a Virtual Private Network firewall was also implemented and its not yet completed. On full implementation it will facilitate a quick delivery of data files for processing to SAECH and a quick uploading from SAECH via the internet. It will further provide a secure gateway between SAECH to prevent illegitimate access into the SAECH and SWIPSS system and also provide for file security.

11.4.4. ELECTRONIC CLEARING HOUSE'S INTERFACING

The System's interface to the SWIPSS/RTGS which was also fully implemented by the live date of the 15th of June 2007. This interface is very vital for the file security as it enables the forwarded files from SAECH to the RTGS to carry the digital signature that makes it impossible for the file to be tempered with before it is processed by the settlement system. A leased line between Posix and the SAECH was also installed to automatically download anti-virus updates as and when available from the relevant internet sites.

11.5. E-MONEY AND MOBILE BAN KING INITIATES

There has been no developments in this area. MTN had a ten year monopoly basic licence which expires in 2009. MTN is currently

negotiating for an all purpose licence which will allow provision of multi-mobile services including Electronic and Mobile Banking which will be stimulated by the competition of the Mobile Network Providers in the country.

11.6. OVERSIGHT ISSUES

The Bank is also at an advanced stage of implementing the oversight function to promote the safety and efficiency of the payment system to mitigate the risks by managing them effectively.

The Oversight Framework Policy Document and Guidelines have been drafted and already awaiting adoption by the executive committee. The Bank will also be sending two officers to one of the SADC central banks for a week's attachment in Oversight. It is envisaged that the Oversight function will be launched by the 30th of June 2008 to include both the on-site inspections and off-site analysis of data. Developments on both local and international payment system environments will be monitored and changes implemented where necessary to reduce risk in the national payment system.

12. TANZANIA

12.1. Introduction

The National Payment System (NPS) continues to provide an efficient customer centred payment system in Tanzania. The main NPS streams that are currently in use in the country include cash, cheques, Electronic Funds Transfer (EFT), Telegraphic Transfers (TTs), Payment cards, Mobile and Internet banking.

This report summarises the NPS main streams' activities carried out by the Bank of Tanzania during the period of April 2007 to March 2008. It focuses on operational issues, settlement system developments and projects, retail system developments and projects, E-money and mobile banking initiatives and finally concludes with NPS oversight issues.

12.2. Operational issues

The country's main financial system players constitutes mainly of 24 registered commercial banks, 5 regional unit banks⁴, 3 non-banks financial institutions and 2 regional unit financial institutions⁵. These are served by the following systems; Large Value Transfer System, known as TISS went live In April 2004. The system is an inter-bank fund transfer systems through which large value high priority credit transfers are made between participants in the system for their own account or on behalf of their customers. The system has significantly improved efficiency in the payments system by eliminating the settlement time lag (float) for high value and time sensitive payments. It also minimizes settlement risks.

The system has participants from commercial banks, financial institutions and the Tanzania Revenue Authority (TRA). At TRA funds from specific Tax Payers are

⁴ A regional unit bank is an institution licensed to operate as a regional unit bank and authorised to receive money on current account subject to withdraw by cheque.

⁵ A regional unit financial institution is an institution licensed to operate as a regional unit financial institution and authorised to engage in banking business not involving the receipt of money on current account subject to withdrawal by cheque.

remitted and received on Real Time basis, this measure has significantly reduced government revenue float. Discussions are going on with the Ministry of Finance to join TISS and effect government payments in real time in order to reduce the government expenditure float.

In March 2002 the Bank of Tanzania acquired and implemented the Electronic Clearing House System (BOTECH) to facilitate electronic inter-bank debit clearing which went live in the same year. There are five (5) clearing houses, out of which four utilise the BOTECH system, which facilitate exchange of electronic journals and corresponding settlement files. Using these details a settlement batch is produced and sent to TISS for settlement.

Another service by the name Tanzania National Net Settlement Service (TNNSS) is used for consolidating clearing obligations of local VISA card transactions in the country, and create a consolidated settlement obligation for all participants and send it to TISS for settlement.

12.3. Settlement system developments and projects

Developments in the settlement system during the period have been as follows:

The Bank developed a facility for settlement of the UmojaSwitch Net Settlement Services (UNSS) obligation through TISS. UNSS is switch for about 30 ATMs owned by 6 local banks.

The Ministry of Finance (MOF) has lately joined TISS in the same way as the Tanzania Revenue Authority (TRA) to enable timely remittance of government revenue and payments on behalf of the government.

The Bank in collaboration with other East Africa member central banks is now in the process of implementing East Africa Payment System which is planned to commence in August 2008. This will be achieved by enhancing the current RTGS to accommodate cross boarder transactions. The system will begin with three countries Tanzania, Kenya and Uganda, at later stage Rwanda and Burundi are expected to join after they have implemented their national RTGS.

12.4. Retail system developments and projects

Retail system developments include the automation of the clearing houses, introduction of UmojaSwitch (as narrated above), the DECH was enhanced to use SWIFTNet File Act in delivering clearing house files and three clearing houses which were manually operated have been automated.

12.5. E-money and mobile banking initiatives

The bank facilitates implementation of E-money schemes by providing standards and guidelines.

E-money

Currently there are two E-money schemes in Tanzania namely, TemboCard and FedhaCard which are operated by two different commercial banks.

Mobile banking

Only three banks are currently offering some of the mobile banking services. In some cases, customers are able to receive information such as salary alert and account balances through their mobile phones. In addition mobile payment services are offered by a private company whereby their customers are able to send, spend and receive money without having a bank account.

12.6. Oversight issues

During the reporting period the Bank's National Payment Systems Directorate continued with the Oversight activities so as to enhance efficiency and minimise risk in payments clearing and settlement systems. Oversight activities conducted include the review of rules and regulations for Arusha, Mwanza and Zanzibar clearing houses in collaboration with stakeholders following the automation of these clearing houses. Other activities include formulation of NPS Oversight

Policy and review of Electronic Payment Schemes Guidelines for introduction of payment schemes. Further the Bank conducted onsite and offsite examination of payment systems to monitor and evaluate performance and efficiency trends of the existing payment systems and invoke corrective measure where necessary. In view of the oversight activities various periodic reports were produced. These include weekly, quarterly and annual reports. The annual oversight report for financial year 2006/2007 enumerates a self-assessment of safety and efficiency trends based on national and international standards⁶. The report covers the trend performance for the clearing and settlement systems and developments made during the period.

The Bank also published a third issue of Malipo Newsletter and conducted sensitisation programmes such as training of new members and a seminar for the Members of Parliament of the Finance and Economic Affairs Committee. The objectives of these programmes were to decrement information on NPS developments, and ensure that payment systems modernisation initiative receives policy and legislative support.

Amendments to Evidence Act to admit electronic evidence in the court of law was approved by the parliament.

⁶ The Core Principles for Systemically Important Payment System and BIS Recommendations on Securities Settlement Systems

13. ZAMBIA

13.1. INTRODUCTION

This report reviews the developments that took place in the Zambian National Payment Systems between April 2007 and January 2008. 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 consulted a broad spectrum of relevant stakeholders.

13.2. OPERATIONAL ISSUES

The Zambia Interbank Payment and Settlement System (ZIPSS) continued to operate satisfactorily with all thirteen commercial banks participating actively. The volume of transactions processed during the period January 2007 to December 2007 increased by 41 % to 91, 462 transactions (2006: 65, 066) with peak number of transactions flowing in November 2007. The value of transactions similarly increased by 35% to K164, 295 billion (2006: K121, 953 billion).

Chart 1

Month	Volumes			Values		
	2006	2007	% Change	2006	2007	% Change
Jan	5,487	6,126	1.63%	10,425.00	13,926.00	5.80%
Feb	4,871	5,287	32.40%	7,552.00	10,579.00	43.96%
Mar	5,492	6,394	40.60%	10,178.00	14,123.00	42.05%
Apr			-9.54%			-2.18%

	4,592	6,474		7,927.00	16,414.00	
May			5.82%			-
	5,313	7,581		6,406.00	17,696.00	36.18%
Jun			-1.74%			-
	5,373	7,064		7,712.00	11,360.00	29.62%
Jul			-2.73%			-7.69%
	4,735	7,105		8,564.00	13,862.00	
Aug			5.70%			11.26%
	5,678	7,687		9,741.00	13,524.00	
Sep			8.46%			67.44%
	5,857	7,734		13,814.00	12,001.00	
Oct			10.09%			52.38%
	5,661	9,997		13,243.00	12,679.00	
Nov			5.36%			44.82%
	5,979	10,246		13,229.00	13,426.00	
Dec			-5.35%			-1.07%
	6,028	9,767		13,162.00	14,705.00	
Totals			7.39%			13.55%
	65,066	91,462		121,953.00	164,295.00	

The increase in volume and value of transactions can be attributed to the introduction of the following on ZIPSS;

13.2.1. Zambia Revenue Authority Tax Payment Stream

The Bank of Zambia in conjunction with the Bankers Association of Zambia and the Zambia Revenue Authority introduced the Tax payment Stream which enables tax payers make tax payments easily from their bank branches. This has increased the volume and value of transactions as all tax payers are compelled to make payments through ZIPSS.

13.2.2. Item Value Limits on different Payment Streams

The Bank of Zambia in conjunction with the Bankers Association introduced Item Value Limits on Physical Interbank Clearing (PIC) and Direct Debits and Credit Clearing (DDACC) payment streams. Following the implementation, the volume of transactions on ZIPSS increased as large value PIC and DDACC instruments now had to be processed using ZIPSS.

13.2.3. Growth of the Zambian Economy

The Zambian economy grew in 2007 by 6.2%. This growth may have spurred growth of sections of the economy thereby leading to an increase in corporate trade.

13.3. SETTLEMENT SYSTEM DEVELOPMENTS AND PROJECTS

13.3.1. Implementation of Additional Modules on ZIPSS:

During 2007, the Bank of Zambia implemented the Reserves and Charges modules on ZIPSS. Prior to the live implementation of the Reserves Module, the division conducted pilot testing with all commercial banks to ensure all banks were aware of the procedures to be followed. The module has proved to be helpful to commercial banks as they are able to manage their own reserves.

The charges module was implemented in September 2007 following successful testing with commercial banks. The module has been beneficial to the Bank of Zambia as transaction charges are collected automatically from the commercial banks.

13.3.2. Implementation of Straight Through Processing (STP) at Commercial Banks

The STP project was not completed on schedule due to a few problems encountered at the testing phase. The selected vendor was able to successfully test STP between PIC/DDACC and various banking systems. However, the vendor faced a few challenges with file formats for ZIPSS. This is under resolution and the project is expected to be complete by the end of quarter 1, 2008.

13.3.3. Linking of Strategic Institutions to ZIPSS

During the period under review, the Bank of Zambia in conjunction with the Zambia Revenue Authority and Bankers Association of Zambia implemented the ZRA Tax Payment Stream on ZIPSS. This, however, is a project still under implementation and is scheduled for completion in 2008. Additionally, the Bank of Zambia is in the process of linking other institutions to ZIPSS such as;

13.3.3.1 The Ministry of Finance and National Planning

13.3.3.2 Lusaka Stock Exchange

13.3.3.3 Zambia Electronic Clearing House Limited

These projects have been targeted and budgeted for in 2008.

13.4. RETAIL SYSTEM DEVELOPMENTS AND PROJECTS

13.4.1 Item Value Limits

In April 2007, the Bank of Zambia in conjunction with the banking community introduced Item Value Limits on the payment streams cleared through the Zambia Electronic Clearing House i.e. Physical Interbank Clearing (cheques),

Direct Debits and Direct Credits. This initiative was aimed at reducing the exposure of participants to one another as settlement of clearing house transactions are done on a deferred net settlement basis.

In this regard, consumers can now channel payments of high value through the Real Time Gross Settlement (ZIPSS) system, allowing consumers real time access to funds. To this end, all payments above K100 million⁷ are now being settled through the ZIPSS. For amounts below this threshold, a consumer has the choice of using either a cheque, issuing a Direct Credit payment instruction or using any other electronic payment mechanism. For amounts below K50 million⁸ the consumer has the added option of using Direct Debits.

13.4.2. Visa National Net Settlement Service

During the month of June 2007 local Visa transactions among commercial banks began settling on the ZIPSS under the Visa-National Net Settlement Service (Visa-NNSS). Previously, local Visa transactions were settled using foreign currency at Visa CEMEA in the United Kingdom.

With the implementation of the Visa-NNSS, pressure on participating banks to source foreign currency to settle local transactions has been alleviated. This will greatly improve the efficiency of commercial bank operations as they will be able to make savings on foreign currency. The commercial banks will also not be exposed to foreign currency risk due to the conversion of transactions values from Kwacha to foreign currency.

13.4.3. National Pension Scheme Authority stream

⁷ Equivalent to US\$25,000 at K4,000/US\$

⁸ Equivalent to US\$12,500 at K4,000/US\$

In November 2007, commercial banks implemented a payment stream for pension contributions for the largest pension fund. Contributors can now send pension contributions electronically by issuing instructions to their commercial banks which in-turn use the ZIPSS. Transaction volumes are still minimal but it is expected that as contributors become aware of the facility, the volumes will increase.

13.5. E-MONEY AND MOBILE BANKING INITIATIVES

Mobile Phone Transaction Medium for Cotton Farmers

During the year 2007, an inquiry was received from an organisation which intends to set up a mobile phone transaction medium for cotton farmers in the Eastern province of Zambia. The pilot tests which were conducted were successful.

Following the successful tests, the Mobile Payment scheme is in the process to formally apply for designation by the central bank.

13.6. OVERSIGHT DEVELOPMENT INITIATIVES

13.6.1. Implementation of the National Payment Systems Act, 2007

On 15th June 2007 the commencement order for the National Payment System Act to come into effect was published. The Act provide for the management, administration, operation, supervision and regulation of payment, clearing and settlement systems. It further empowers the Bank of Zambia to develop and implement payment, clearing and settlement system policy so as to promote efficiency stability and safety of the Zambian financial system.

The law will require any person intending to operate a payment system to apply to the Bank of Zambia, in the prescribed format, for designation of the system. It will further require systems already in operation at the coming into effect of this Act to apply to the Bank of Zambia within one hundred and eighty days from the date of the commencement of this Act for designation.

The Bank of Zambia has identified and prioritised areas in the NPSA for development and discussion with banks to facilitate implementation of some of the NPSA provisions. These urgent matters included; developing application guidelines, requirements, forms for designation of payment systems (section 6) and payment system business (section 11) as well as guidelines on Dishonoured Cheques on account of insufficiently funded accounts (section 33).

Currently the Bank is in the process of designating payment system participants and payment systems business.

13.6.2. Money Transmission Guidelines

During the period, the Bank commenced the process of developing guidelines for Money Transmission service providers to facilitate oversight of these institutions.

13.6.3. Payment System Oversight

The Bank progressed with finalising the oversight policy, processes in line with the provisions of the National Payment Systems Act Number 1 of 2007. This has strengthened the Bank of Zambia powers of oversight. The Bank's oversight has in the past been concentrated on the systems operated or participated in by institutions regulated under the Banking and Financial Services Act.

13.6.4. National Payment Systems Vision and Strategy 2007 - 2011

During the period under review, the National Payment Systems committee adopted the National Payments Systems Vision and Strategy 2007 – 2011. This document will provide guidance to the National Payment Systems development over the period.

14. ZIMBABWE

14.1. Introduction

The report outlines the progress made on Zimbabwe's payment system from April 2007 to March 2008.

The major highlights during the period under review include the following on going and completed activities;

- a) Operational Issues: Increased utilization levels of the Real Time Gross Settlement (RTGS) system.
- b) Projects: Completion of SWIFTNet Phase II Migration, progress on implementation of Straight Through Processing (STP) by RTGS members, and interoperability of local cards on a common ATM and POS platform
- c) Reinforcement of Business Continuity Planning (BCP) by RTGS/CSD participants.

14.2. Operational Issues

14.2.1. The RTGS system utilization levels maintained an upward trend with an average utilization level of 94% being recorded in 2007. A peak of 98% was registered on a single day during the year. This was a significant increase compared to the average of 85%, with a peak of 95% registered on a single day in 2006.

14.2.2. Volumes of transactions processed through the RTGS system increased by 135% between 2006 and 2007. The growth in volumes could be attributed to the increasing awareness by the transacting public on the benefits of using the RTGS system for high value, high risk and time critical payments. The absence of a comprehensive retail payment

system for high volume, low value transactions also contributed to the increased usage of the system.

14.3. Settlement System Developments

14.3.1. Central Securities Depository (CSD) system

14.3.1.1. The CSD system, which was implemented in February 2006, is operating smoothly, with all the participants transacting as custodians on behalf of their clients and on their own behalf.

14.3.1.2. Both primary and secondary market trades are recorded in the system, as well as the management of collateral security for various commitments by participants and their clients.

14.3.1.3. The CSD system was upgraded in June 2007 following a review of its functionality over several months. The upgrade resolved some of the challenges which were observed by users, thus improving the system's functionality. The major challenge resolved was the clogging of messages in the system which resulted in delays in system updates on custodial records.

14.4. Projects

SWIFTNet Phase II Migration project

14.4.1. The Zimbabwean banking community successfully completed the SWIFTNET Phase II infrastructure upgrade ahead of the SWIFT country deadline of 30 September 2007. A national approach was taken in implementing the project, with the Central Bank playing the coordinating role for the banking industry. In this role, the Reserve Bank hosted monthly progress review meetings. The Central Bank also successfully arranged for SWIFT to come and deliver critical courses that were designed to ensure the success of the project.

Straight Through Processing (STP) Project

- 14.4.2** The STP project has reached advanced stages of implementation with most institutions being in the testing and installation phases. The few institutions that have completed the project are enjoying the benefits of an automated end to end processing of RTGS transactions.

Retail Payment System Initiative

- 14.4.3** A comprehensive framework for retail payment system is being crafted by the Central Bank in collaboration with the banking community. The objective is to enhance efficiency and provide convenience to the transacting public through integrating and streamlining the various retail systems existing in the country.

- 14.4.4** The ultimate goal is to achieve centralization and automation of all retail inter-bank transactions via a common platform, ZimSwitch (a local switch), and the expansion of the Point of Sale (POS) network.

Interoperability of Card Payments

- 14.4.5** During the period under review, the Central Bank in association with the financial institutions launched a project to achieve interoperability of the card payment stream. The main objective of the project is to ensure that all card issuing financial institutions participate on both the national and international switching platforms. A critical stage where all debit cards operate on the ZimSwitch platform, was reached during the course of the year.

Future developments on the interoperability project include the integration of all card accepting devices (such as POS, ATMs) into the common national network so as to give customers the maximum flexibility and convenience when purchasing goods and services.

14.5. E-money and mobile banking initiatives

14.5.1. E-money

Currently, there are no e-money schemes in Zimbabwe. The Central Bank's policy has not been to stifle developments but to welcome any initiatives that enhance efficiency, whilst ensuring that such initiatives are properly coordinated to avoid unnecessary risk being introduced into the overall payment system.

14.5.2. Mobile banking

As at 31 December 2007, there were seven (7) banks in the country offering mobile banking services. The banks have currently adopted the additive model where the mobile phone is used as a channel to offer banking services. Efforts are underway to adopt the transformational model, which can be used by individuals with no bank accounts.

14.6. Oversight Issues

14.6.1. Business Continuity Plans (BCPs)

In an effort aimed at ensuring security and operational reliability of the RTGS and CSD systems, the Reserve Bank undertook an assessment of financial institutions' Business Continuity Plans (BCPs) to ascertain the adequacy of their contingency arrangements.

The Bank continues to conduct onsite inspections on all participants' Disaster Recovery (DR) sites to determine the capability of the contingency arrangements in responding effectively to any eventualities.

14.6.2. Restriction on Payments that go through the Clearing House

The Reserve Bank has maintained continuous reviews on the value-limit on cheques and other paper based instruments that go through the Clearing House. The reviews are meant to curb the risk of failure to settle by participants that emerge with high net debit positions from the Clearing House.