# Tsa Tuelano



The Botswana National Payments System Newsletter

**VOLUME 5, 2010** 

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Tsa -Tuelano Newsletter Editorial Committee

#### Editor's Note

TUELANO is an annual Newsletter, for disseminating information on the modernisation of the National Payments Systems (NPS) in Botswana and related developments. The strategic objective is to continually upgrade the system so that Botswana has an efficient, reliable and modern financial as well as payments systems that can sustainably support economic growth in a competitive international environment.

TSA TUELANO highlights general and specific NPS developments and issues,

including activities of service providers, products/services as well as oversight and regulations. This edition covers an overview of the NPS infrastructure in Botswana. It also highlights compliance of Systemically Important Payment Systems (SIPS) with the Core Principles issued by the Committee on Payment and Settlement Systems based at the Bank for International Settlements (BIS) as evaluated by the Financial Sector Assessment Programme (FSAP) undertaken by the IMF and World Bank in 2008. The recent NPS developments include activities in the Botswana Inter-bank Settlement System (BISS) known as the Real Time Gross Settlement System (RTGS) that ensures irrevocable and final settlement; within 1 hour of the transaction. The RTGS has been operational since November 2006. Levels and Trends of transactions on various payments systems are included in Sections 4 and 5 of this Edition.

Players in the NPS are invited and encouraged to contribute articles on their payments experiences for possible publication in future editions of this Newsletter.

### Payments Service Providers in Botswana

he National Clearance and Settlement Systems (NCSS)
Act (Cap 46:06) provides the framework for the recognition and licensing of payment systems and service providers by the Bank of Botswana. The law focuses on the entities where the operations may have systemic risks on the economy.

The oversight responsibility of the Bank is aimed at ensuring that service providers comply with the BIS Core Principles for Systemically Important Payment Systems (Box A). However, not all payment systems are expected to comply with all the 10 Core Principles (Box B); rather, the degree of observance should be proportionate to the importance of the systemic risk of a particular payments system and service provider. Moreover, in some instances, the Bank of Botswana collaborates with other regulatory agencies in cases where more than one regulatory authority has an interest in a particular payment system and service provider.

## Recognised Payment Systems

he Systemically Important Payment Systems (SIPS) in Botswana include the Botswana Inter-bank Settlement System (BISS), the Electronic Clearing House Botswana (ECHB), the Central Securities Depository (CSD) and SmartSwitch Botswana. The Bank's oversight of these systems is based on a risk-based framework. A number of applicants seeking recognition under the NCSS Act are under review; and a conditional approval has been granted to Bourse Africa to operate a commodities and derivatives exchange.

#### (a) Electronic Clearing House Botswana (ECHB)

The ECHB was established in 2003 to facilitate the transfer of retail payments that include cheques, electronic funds transfers and other payment orders between participants via a secure and private communications network. The Clearing House ensures timely, secure, and private accurate and efficient clearance of payment instructions; maintains records of transactions, minimises paper handling and manual intervention and provides for the efficient storage and retrieval of information for the purposes of investigation, resolution of queries and reporting.

The ECHB is owned and operated by supervised clearing banks in Botswana. Banks act in their own capacity as participants in the ECHB or they may also be acting as agents for other institutions not represented in the ECHB. Participant clearing banks are governed by ECHB Rules and Procedures and maintain settlement accounts with the Bank of Botswana to achieve settlement finality of the

net settlement positions calculated by the ECHB.

### (b) Central Securities Depository Botswana (CSDB)

The CSDB is a private company wholly owned and operated by the Botswana Stock Exchange (BSE). It provides clearing services for transactions undertaken through the BSE.

The CSDB clearing and registry function is of critical importance to Botswana's capital market by ensuring correct assignment of transactions, security, the agreed amount and clearing to the appropriate parties in a transaction. The clearing process also ensures that the seller delivers the security document and that the buyer has sufficient liquid funds to cover the agreed purchase price completely. The final step in the clearing process involves compilation of settlement instructions regarding funds transfer between the bankers and CSD participants.

Once clearing obligations are determined, the settlement is completed by transferring the assets from the seller's to the buyer's account and the corresponding debiting of the buyer's account and crediting of the seller's account in order to achieve Delivery Versus Payment (DVP). The CSD settlements are undertaken through a bank acting as a "settlement agent" through the accounts

held at the Bank of Botswana to avoid any credit, liquidity and settlement risk. The physical registration changes for securities instruments are effected in the CSD electronic securities register.

### (c) Visa International Service Association



Visa International Service Association is a world-wide privately held, non-profit organisation incorporated in USA, owned by 22 000 financial institutions globally. In Botswana, Visa operates a payment card system network enabling consumers to pay for goods and services, using either debit or credit cards.

Visa operates a National Net Settlement Service (NNSS) for countries in which issuers and acquirers wish to negotiate a separate processing agreement between local member banks for clearing domestic Visa transactions through VisaNet. To participate in this service, the merchant, the acquirer and the issuer must be in the same country. In Botswana, the transaction currency is Botswana Pula (BWP). In the NNSS, all participating members settle Visa domestic transactions through one Central Settlement Agent located in Botswana. Visa supplies the Central Settlement Agent with information on net

settlement positions via the VisaNet reports for Visa members. The Central Settlement Agent maintains a Central Settlement Account for Visa member banks through which all funds must pass. Each member must either maintain a settlement account with the Settlement Agent or settle through its account in the BISS.

#### (d) SmartSwitch Botswana

SmartSwitch is an information technology service provider, the objective of which is to provide the Universal Electronic Payment System (UEPS) technology platform in Botswana. The UEPS is a fully integrated smart card based switching and settlement system, designed and developed by Net

1 UEPS Technologies Incorporated. It offers a secure and affordable means for financial transactions. The system utilises biometrics (e.g., finger prints) and can operate in both off-line, through battery operated devices, and on-line through a computer network. The system is, therefore, ideal for adoption by merchant banks and cell phone companies to offer affordable financial services to the un-banked and under-banked segments of the population, especially in remote areas. The information technology services and the UEPS SmartSwitch enable banks to offer additional products, services and functionality to their customers as well as attract new customers.

#### (e) Bourse Africa

Bourse Africa, formerly known as Multi-Commodity Exchange (MCX), a Pan-African commodities and derivatives exchange, was granted a licence to operate a commodities

and derivatives exchange for African markets in July 2010. Based in Botswana, Bourse Africa is expected to provide an efficient, secure, transparent and reliable exchange mechanism to facilitate price discovery and mutually beneficial trade financing, risk management and investment transactions between commodity buyers and sellers across African markets, and between African and international buyers and sellers.

The establishment of a commodity exchange for the African market is expected to allow those active in the production, trade, processing and consumption of physical commodities to promote price discovery and to reduce transaction costs. Furthermore, it is intended to provide discipline and act as a source of market information. It is also anticipated to give the commodity transactors the tools and incentives for improving their operations. Through this role, Bourse Africa will contribute significantly to the economic development of participating countries.

Trading through Bourse Africa includes precious metals, base metals and agricultural commodities in Africa. Initially, the Bourse will serve few African countries utilising a "hub and spoke" model and expand the services to more countries in the continent over time.

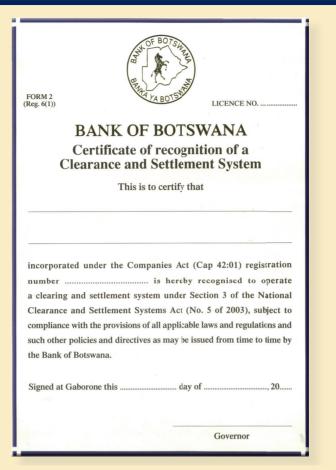
It is expected that the location of a pan-African commodity and derivatives exchange in the International Financial Services Centre (IFSC) will enhance Botswana's stature as a global financial services centre, which should contribute to stimulating additional capital inflows and investment of funds into the planned

Botswana hub. Botswana is deemed to be the ideal host for such a commodities exchange, given its record of political stability, sound macroeconomic management and, in general, good governance.

Clearing and settlement arrangements are constituted by a customised trading, clearing and settlement structure, including the deployment of a Central Counterparty (CCP) clearing house. The approach will entail the establishment of several funds that ensure that the clearing members would be protected from settlement loss in the event of default by another member.

First, each "spoke" exchange and clearing house in the Bourse Africa network shall establish its own settlement guarantee fund, capitalised using compulsory deposits from each member at a level determined by the clearing house. This will act as recourse in the event that a default cannot be remedied through the collateral margin held by the members' clearing house.

Second, a Pan-African "settlement guarantee fund" will be created. This will act as recourse for any clearing house in the Bourse Africa network in the event that a default cannot be remedied through margin collateral and through the "spoke" specific settlement guarantee fund. Bourse Africa shall further augment the protections afforded to its members through credit enhancement mechanisms, including a bespoke insurance



solution.

(f) Society for Worldwide Interbank Financial Telecommunications (SWIFT)

The membership of the Society for Worldwide Interbank Financial Telecommunications (SWIFT) comprises member banks, market infrastructure providers, securities institutions, corporations, network providers, business partners and technology companies. The society ensures speedy financial transactions for its members world-wide with certainty and confidence. The electronic communication network and links are secure for all messages and instructions pertaining to funds transfers. SWIFT communication is made possible through common language or standardised messages and the network. It also brings the financial community together to work collaboratively to shape market

global best practice, define standards and consider solutions to issues of mutual concern and interest. The automation and standardisation also lowers financial transactions costs, reduce operational risk and eliminate operational inefficiencies. In addition SWIFT provides opportunities to customers to develop new businesses and revenue streams.

SWIFT also provides a secure messaging service to financial institutions and global market infrastructures covering some 8 000 users in over 200 countries. The Botswana Inter-bank Settlement System (BISS) utilises SWIFT network for Pula denominated trans-

actions.

Therefore, although SWIFT is not a payment or settlement system in itself, its services are critical to financial transactions messaging. Accordingly, the Bank of Botswana is charged with the responsibility for establishing and administering admission criteria for SWIFT membership in the country and to oversee user group discussions. World-wide oversight of SWIFT is conducted by the central bank of Belgium, together with other central banks. Botswana, jointly with other African states, is represented on the SWIFT Board of Directors by the South African Reserve Bank. The Botswana SWIFT user chairman heads a delegation to the annual SWIFT chairmen meetings and conferences. For a history of SWIFT see website: www.swift.com

# CORE PRINCIPLES FOR SYSTEMICALLY IMPORTANT PAYMENT SYSTEMS AND CENTRAL BANK RESPONSIBILITIES

#### **BOX A**

- (i) The system should have a well founded legal basis under all relevant jurisdictions.
- (ii) The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
- (iii) The system should have clearly defined procedures for the management of credit and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.
- (iv)\* The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum, at the end of the day.
- (v)\* A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.
- (vi) Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
- (vii) The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.

- (viii) The system should provide a means of making payments which is practical for its users and efficient for the economy.
- (ix) The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.
- (x) The system's governance arrangements should be effective, accountable and transparent.

\*Systems should seek to exceed the minima included in these two Core Principles.

## Responsibilities of the central bank in applying the Core Principles

- (i) The central bank should define clearly its payment system objectives and should disclose publicly its role and major policies with respect to systemically important payment systems.
- (ii) The central bank should ensure that the systems it operates comply with the Core Principles.
- (iii) The central bank should oversee compliance with the Core Principles by systems it does not operate and it should have the ability to carry out this oversight role.
- (iv) The central bank, in promoting payment system safety and efficiency through the Core Principles, should cooperate with other central banks and with any other relevant domestic or foreign authorities.

#### UPDATED CORE PRINCIPLES ASSESSMENTS OF THE MAIN BOTSWANA PAYMENT SYSTEMS -2008 Self Assessment **BOX B** BISS **ECHB l**: Legal basis 11: Understanding financial risks III: Management of financial risk IV: Prompt final settlement ۷: Settlement in multilateral netting systems VI: Settlement asset VII: Security and operational liability VIII: Efficiency IX: Access criteria Governance X: Responsibility A Responsibility B Responsibility C Responsibility D Key **FSAP Partly Broadly** Under Not Not Observed N/A Rating Review Observed Observed Observed Rated 2007

## Settlement Finality in Botswana:

## Botswana Inter-Bank Settlement System, a Real Time Gross Settlement (RTGS) System.

safe and efficient payment system that ensures timely final settlement on central bank money is critical for the effective and smooth functioning of a country's economy.

The BIS Core Principles IV and VI underscore the importance of timely settlement of payment obligations including those that carry little or no credit risk. The Bank of Botswana, through the Botswana Interbank Settlement System (BISS), a Real Time Gross Settlement System (RTGS), meets this requirement. The BISS ensures that payment instructions are settled continuously on an individual gross basis. Once settled, the instruction is final and irrevocable.

Participation in the BISS is currently restricted to "clearing financial institutions" but will evolve, over time to accommodate all large value systems. These institutions are required to maintain a settlement account with the Bank of Botswana, have SWIFT connectivity for BISS and SWIFT relationship management with each other to enable proper authentication of payment messages. Final settlement of payment transactions between participants takes place in Pula through the accounts of these institutions at the Bank of Botswana.

#### Importance of Settling in Central Bank Money

Settlement is final and safest when transacted in legal tender (Pula) as the unit of account. When denominated in legal tender, the asset is very liquid, accepted and available to all participants in the payment system.

Moreover, the Pula accounts used in settlements are not exposed to credit risk since the central bank is a source of liquidity as an issuer of the national currency. This special characteristic of the Bank of Botswana insulates the settlement system from systemic disturbances and risk.

#### **Electronic Clearing Batch Settlement**

In addition to the settlement of funds transfers between clearing banks' the BISS settles the net positions batch received from the Electronic Clearing House Botswana (ECHB). Currently, there are two clearing sessions, one in the morning at 1000 hours and the other in the afternoon at 1530 hours. After each clearing session, the net positions are loaded into the BISS for settlement. Within the multi-part net settlement batch, the BISS creates a queue on basis of settlement priorities.

#### A Real Time Gross Settlement (RTGS) System Versus A Deferred Net Settlement (DNS) System

The difference between the RTGS and DNS involves the form and timing of the settlement of payments, as opposed to the manner in which payment instructions are transmitted. Within a DNS systems, settlement is achieved in batches, on a net basis at designated times during an operational day or at the end of the day. On the other hand, settlement in the RTGS system is undertaken on a transaction by transaction basis and occurs immediately upon receipt of the instruction by the system, assuming there is adequate funds in the participants' settlement account.

At the designated time, the DNS system settles multiple payments that have already been received by the system for settlement. This arrangement exposes participants to financial risks during the period when the settlement is deferred. One participant's inability to settle its obligation could change the positions of other participants, thus

introducing credit and liquidity risk and the possibility of broad based and across-the-board failure to meet their respective obligations which may ultimately, lead to systemic risk. The RTGS system mitigates such risks due to its ability to settle individual payment obligations, on a gross basis.

## Management of Risk in the BISS

The management of risk is critical for the safety and soundness of a payment system. Risk management measures are aimed at reducing the risks faced by participants, together with minimising systemic risk and disturbances in the payment system as a whole. Examples of the risk management measures that are in place in the BISS include pre-funding of all payments; reduction of time lags in settlement; intra-day collateralised lending known as the Intraday Lending Facility; loss sharing arrangements; and defined exposure limits.

The BoB utilises the first three risk management measures to mitigate direct credit risk. As such, BISS settlement depends on the availability of sufficient funds in the participant's settlement account. In the event of insufficient funds in a settlement account, payment instructions are either rejected or aueued until sufficient funds become available. Subject to availability of sufficient funds in an account, settlement in the BISS is achieved in real time. Day time and overnight credit is availed to participants on a collateralised basis called the Secured Lending Facility. Daytime exposure does not attract interest charges.



RTGS staff cracking their heads to solve one of their daily problems

#### Liquidity Management

The availability of liquidity in the BISS is a critical element that enables the smooth operation of the BISS to ensure timely settlement of payments and minimise system gridlock. The sources of liquidity include account balances, incoming payments and intra-day credits provided by the Bank of Botswana. The provision of an intra-day credit facility is a major consideration in the operations of any gross settlement system. Without intra-day credit, clearing banks would be required to maintain substantial non-interest positive balances in their settlement accounts resulting in efficiency as excess funds could be made available for other productive lending to their customers.

#### Conclusion

The role of the central bank as a settlement institution is crucial for the safety and soundness of a pay-

ment system. Settlement represents the final execution of a payment transaction and the transfer of funds between counterparties. For settlement to be undertaken, participants in the transaction must maintain open accounts with the settlement institution. Participants' confidence in the settlement procedure depends, primarily, on the security of the payment instrument in which the settlement is performed and the safety of the institution that performs it.

Settlement through the BISS eliminates the risk of failure to settle in the provision of settlement services. Given the finality and irrevocability of the payments in the BISS, if one participant fails during the day, other participants who have already received payments from the failing participant would not be affected. Hence, systemic risk in the BISS is mitigated through the BoB guarantee of payment finality.

## **Definition of High Value Payments:**

## A Maximum Cap of P500 000 on Cheque Payments Introduced

#### Introduction

he Bank introduced a formal definition of large value payments that can only be made through electronic means. Accordingly, on October 1, 2009, a maximum cheque cap of P500 000 was introduced in the the retail payments clearing in Botswana. The implementation date followed an extension of the initial commencement schedule in order to allow for more consultations between the Bank of Botswana, the Bankers Association of Botswana (BAB), member financial institutions and other key stakeholders, including the Botswana Government. The initiative was part of consistent with the national framework and strategy for modernising and reforming the clearing and settlement systems by improving speed, efficiency and

safety of large value payments and transfers of funds.

Since October 1, 2009, the limit for a single cheque payment and transfers through retail payment clearing systems should not exceed P500 000, and any single transaction in excess of this amount is categorised as a large value payment (LVP) and should be effected through the BISS and other electronic means.

The authority to define such large value payment, capping the cheque amount at a maximum of P500 000, is derived from the National Clearance and Settlement Systems (NCSS) Act (Cap 46:06). Specifically, Section 10 of the Act empowers the Bank of Botswana to guide management bodies of recognised payment systems, by issuance of written instructions on processing of payments and

transfers in licensed systems. In order to comply with the guideline, the banking industry reviewed the ECH rules and regulations issued under the NCSS Act to incorporate this cheque amount limits in payments, clearing and settlement.

#### Benefits of the Cheque Capping

Capping of cheque values issued in payment systems is in line with international best practice and it minimises the risk of large value payment frauds using cheque and defaults in addition to enhancing the efficiency of the National Payments System (NPS). Furthermore, the initiative is expected to encourage the use of electronic payments such as electronic banking, debit and credit cards as well as mobile and card payments. All high value payments and transfers are transacted through





Payments System Unit Staff reponsible for the NPS Strategy, Policy and Project Management, as well as Oversight and Compliance.

Electronic Funds Transfers (EFTs) and the Real Time Gross Settlement (RTGS) system, also known as the Botswana Inter-bank Settlement System (BISS) for timely, guaranteed and final settlement. This development has lead to quicker availability of funds to payee accounts. It also reduces the risk of default in the ECH transactions.

#### Cheque Clearing and Capping: Botswana's Experience and Lessons

The following lessons have been learned from cheque clearing and capping:

- (a) Cheque volumes and value processed through the ECH have since October 2009 declined slightly. The reason for the development is that high value payments have been re-directed to the BISS and other electronic means, in particular EFTs.
- (b) Although the Bank of Botswana relied on the NCSS Act to effect capping of the cheque payments in ECH transactions, there is need for review of other legislation likely to impede on the implementation of the NCSS Act in Botswana. Therefore, until the review process for the Bills of Exchange Act is finalised and passed in Parliament, such cheques, even
- though they will not be processed through the ECH, in accordance with the provisions of the NCSS Act, will remain lawful instruments according to the Bills of Exchange.
- (c) Tax authorities had to review tax collections and have discussed with commercial banks ways and means for implementing new methods of tax collection to accommodate the maximum cheque cap.
- (d) Payments to Small and Medium Enterprises (SMME's) by local authorities (cities and councils) and any other large amounts by big corporates are undertaken through BISS.

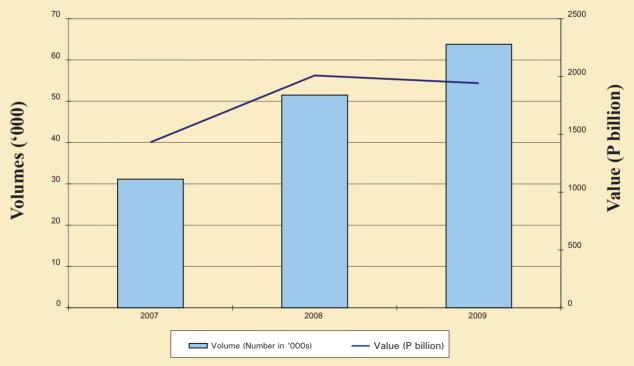
# Trends in Selected Payments and Settlement Transactions

he Charts below present values and volumes of transactions processed by major payment systems during 2009. Charts 2 and 3 highlight the predominance of the cheque payment instrument in terms of volumes and values, although the Electronic Funds Transfer (EFT) payments are gaining momentum. The trend is expected to continue as electronic payments increase. The cash payments remain larger than card payments to date as evidenced by high volume and values of Automated Teller Machine (ATM) withdrawals relative to debit and credit card payments.

Chart 1 presents the Botswana Interbank Settlement System (BISS) statistics for transactions processed during the past three years. Over the past 12 months (2008-2009), the volumes and values of transactions settled in

the BISS increased by 23.8 percent and 3.3 percent, respectively.

Chart 1: Botswana Interbank Settlement System (BISS) Transactions (2007 - 2009)



Over the same period, cheque processing at the ECH increased by 3.4 percent in volume and 0.2 percent in value as shown in Chart 2.

3500 100 3000 80 Value (P billion) 2500 **Volumes** ('000) 2000 1500 1000 20 500 0 2004 2005 2006 2007 2008 2009 Volume (Number in '000s) Value (P billion)

**Chart 2: Electronic Clearing House: Cheque Processing (2004 - 2009)** 

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Corresponding increases for Electronic Funds Transfers were 7.1 percent in volume and 80 percent

in value. This indicated a significant shift towards the more secure electronic means of payment. The annual volumes and values have been increasing since 2004.

**Chart 3: Electronic Clearing House: Electronic Funds Transfers (2004 - 2009)** 

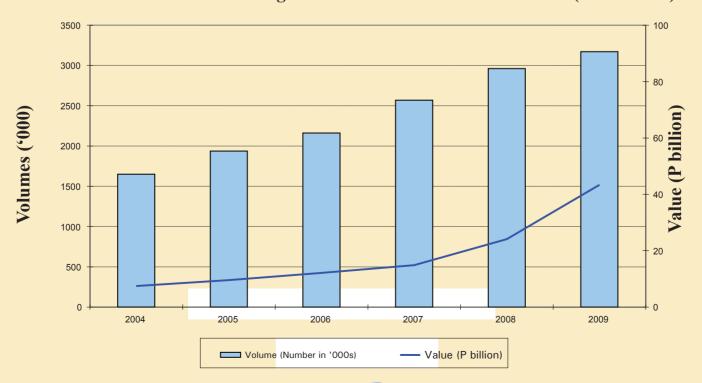
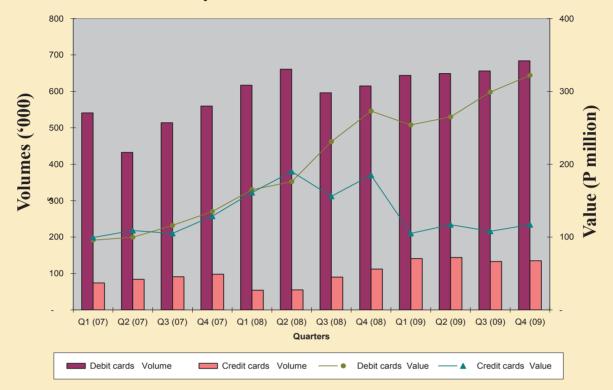


Chart 4 compares usage of credit card against debit cards. The use of debit cards is greater than credit cards in terms of volumes. The Chart shows a sharp increase in the usage of debit cards, whereas credit cards usage (volume and value) remained lacklustre. In value terms, the debit card transactions continued to increase from 2008 to 2009, while the value of credit card transactions maintained a declining trend in 2009.

Chart 4: Card Payments: Volumes and Values for 2007-2009



Automated Teller Machines (ATMs) transactions (both value and volume) generally show growth from the first quarter of 2007 to the

fourth quarter of 2008 (Chart 5). However, for the Electronic Funds Transfer Point of Sale (EFTPOS) the trend was erratic and the growth

was slow. This development suggests a possible preference for cash transactions despite the availability of Point of Sale (POS) devices.

Chart 5: ATM and EFTPOS (Volumes and Values) 2007 – 2009



### **Statistical Tables**

Table 1 below provides consolidated information on volumes and values of the main payment systems operational in the year 2009. The Real Time Gross Settlement (RTGS) shows the highest figure in terms of value, but lowest in terms of volume, as it processes mostly high-value and time critical payments. Most net settlement positions are settled on the BISS to achieve settlement finality and irrevocability.

Table 1: Volumes and Values Processed by Main Payment Systems in 2009

Payment System	Volume ('000)	Value (Pula billion)	Important Payment categories
Electronic Clearing House			
• Cheques	2 826	72.5	Clearing of cheque transactions
Electronic Funds Transfer (EFT)	3 172	43.4	Clearing of EFT transactions
Botswana Inter-bank Settlement System (BISS)	63.8	1 942	Settlement of financial market transactions, ECHB net settlement positions & other high value, time critical transactions
Central Securities Depository (CSD)	174.6	1.1	Settlement of securities transactions
Visa Card Transactions	34 987	14.6	Processing of credit & debit cards transactions including Point of Sale (POS) and Automated Teller Machine (ATM) transactions

Sources: Bank of Botswana, ECH, Commercial Banks, CSD

Table 2: Botswana Inter-bank Settlement System (BISS) Transactions, 2006-2009

Period	Volume ( '000s)	Value (P billion)
2006	3.5	125
2007	31.1	1431
2008	51.5	2009
2009	63.8	1942
2009 Jan	3.7	171
Feb	4.8	166
Mar	4.7	147
Apr	4.6	146
May	4.2	134
Jun	5.3	150
Jul	4.8	154
Aug	5.3	169
Sept	5.1	147
Oct	6.6	173
Nov	7.2	200
Dec	7.5	185

Source: Bank of Botswana

Table 3: Electronic Clearing House: Cheque Processing, 2004 - 2009

Period	Volume ('000s)	Value (P billion)
2004	2970	61
2005	2958	62
2006	2838	59
2007	2817	87
2008	2912	87
2009	2825	73
2009 Jan	199.5	6.6
Feb	217.5	6.0
Mar	261.7	7.9
Apr	233.1	8.5
May	219.4	5.9
Jun	247.1	6.6
Jul	247.7	6.4
Aug	232.7	5.9
Sept	233.3	5.9
Oct	238.9	4.8
Nov	239.4	3.7
Dec	254.7	4.3

Source: Electronic Clearing House

Table 4: Electronic Clearing House: Electronic Funds Transfers 2004-2009

Period	Volume (Number in '000s)	Value (P billion)
2004	1649	7
2005	1938	10
2006	2160	12
2007	2569	15
2008	2961	24
2009	3171	43
2009 Jan	249.9	1.9
Feb	239.1	2.8
Mar	285.1	2.0
Apr	261.7	2.3
May	254.1	2.9
Jun	270.1	4.0
Jul	273.3	4.0
Aug	263.2	3.3
Sep	Sep 267.8	
Oct	236.6	3.9
Nov	272.8	5.3
Dec	297.2	5.9

Source: Electronic Clearing House

Table 5: EFTPOS and ATMs, 2007-2009

	EFTPOS			ATMs		
Period	Volume ('000)	Value (P million)	Number ('000)	Volume ('000)	Value (million)	Number
2007 1st quarter	1 394	450	2 391	3 338	1 353	229
2 <sup>nd</sup> quarter	1 633	559	2 429	3 563	1 609	275
3 <sup>rd</sup> quarter	1 914	591	2 481	3 033	1 830	279
4 <sup>th</sup> quarter	2 238	674	2 508	3 820	2 182	292
Total	7 178	2 274		13 754	6 973	
2008 1st quarter	2 065	564	2 696	4 989	2 189	189
2 <sup>nd</sup> quarter	2 146	812	2 943	4 999	2 299	197
3 <sup>rd</sup> quarter	1 811	769	2 743	5 556	2 435	145
4 <sup>th</sup> quarter	1 965	780	2 797	5 972	2 703	149
Total	7 988	2 925		21 516	9 626	
2009 1st quarter	2 901	1 021	2 844	5 783	2 493	260
2 <sup>nd</sup> quarter	2 818	1 051	2 881	5 682	2 514	261
3 <sup>rd</sup> quarter	2 906	1 089	2 884	5 987	2 657	251
4 <sup>th</sup> quarter	2 964	1 116	2 854	5 943	2 681	255
				23 395	10 345	

Source: Commercial banks

Table 6: Card Payments 2007 - 2009

Period	DEBIT (	CARDS	CREDIT CARDS		
	Volume ('000)	Value (Pula million)	Volume ('000)	Value (Pula million)	
2007 1st quarter	541	96	74	99	
2 <sup>nd</sup> quarter	433	100	84	109	
3 <sup>rd</sup> quarter	514	116	91	105	
4 <sup>th</sup> quarter	560	135	98	129	
Total		446		442	
2008 1st quarter	617	165	54	161	
2 <sup>nd</sup> quarter	661	176	55	190	
3 <sup>rd</sup> quarter	596	231	90	156	
4 <sup>th</sup> quarter	615	273	112	185	
Total		845		692	
2009 1st quarter	644	254	141	105	
2 <sup>nd</sup> quarter	649	265	144	117	
3 <sup>rd</sup> quarter	656	299	133	108	
4 <sup>th</sup> quarter	684	322	135	117	
Total		1140		447	

Source: Commercial banks



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