

# 12 PAYMENT AND SETTLEMENT SYSTEM

## 12.1 Introduction

An efficient payment and settlement system (PSS) is a key component of the financial infrastructure. It contributes towards the stability of the financial sector by facilitating smooth functioning of financial institutions, especially financial markets. Moreover, its contribution toward economic growth arises from substantial reduction in transactional cost and time.

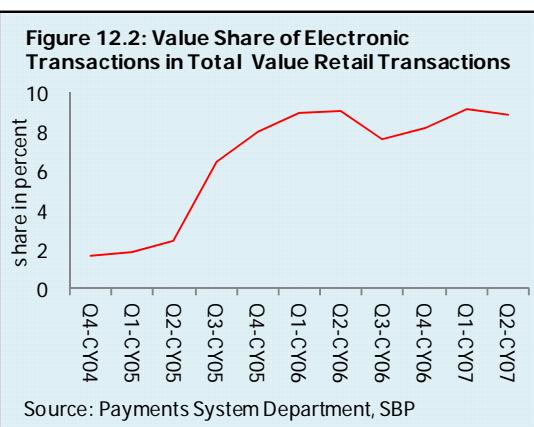
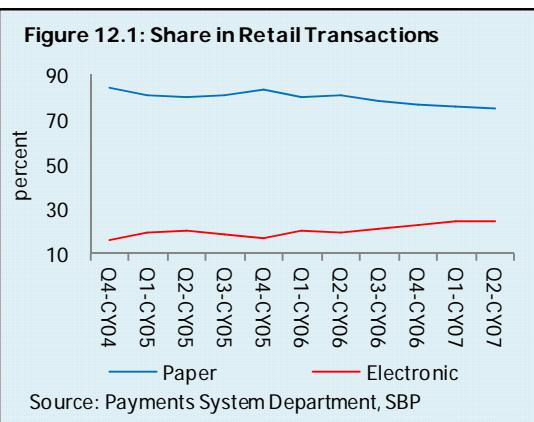
In recent years, the speed and pace of developments in information technology have played a critical role in improving the level of sophistication of payment and settlement systems. These innovations have significantly enhanced their capacity and efficiency. Being cognizant of these developments and the contribution of PSS towards financial stability, SBP has been actively working to reform the Payment and Settlement System in the country. Developments on both the Retail payment System and Real Time Gross Settlement System are reviewed in the following sections.

## 12.2 Retail Payment System

Retail payment system in Pakistan comprises of both paper-based and electronic transactions. During FY07, the number of total retail transactions recorded a YoY increase of 14.1 percent to reach 423.6 million. The corresponding amount of these retail transactions surged to Rs 124.2 trillion, with YoY growth of 29.7 percent. Both the number and the value of transactions not only underscore the importance of PSS, but also reflect the increasing activities of the financial sector, in particular the banking sector.

**Figure 12.1** reveals that: (1) the retail payment system is heavily dominated by paper-based transactions; and (2) the share of electronic transactions has witnessed a steady rise in recent years. These patterns are hardly surprising as Pakistan is gradually moving from a paper-based retail payment systems towards an electronic transaction based system. A point worth noting is the share of less than 10 percent of the value of electronic transaction in the total value of retail transactions (**Figure 12.2**). This, along with the 24.9 percent share of electronic transactions in the total number of retail transactions clearly suggests that the electronic payment system is largely used for low value transactions. One of the possible explanations for this is the increasing use of credit/Debit/ATM cards by the household sector. Keeping these developments in mind, the rest of this section reviews developments related to e-banking.

A break-up of electronic transactions indicates that over 50 percent of total transactions are related to ATMs (**Table 12.1**). Further breakup of ATM



transactions shows that 99 percent of these transactions are for cash withdrawals, while the remaining are related to payment of utility bills, account to account fund transfers and cash deposits. Second to ATM transactions are the Real Time Online Banking transactions (RTOB) with a share of over 30 percent in the overall electronic transactions. The Point of Sale (POS) transactions, generally related to the use of debit/credit cards, constituted 15.1 percent of overall electronic transactions during Q2-CY07. Finally, the share of electronic transactions conducted through 'other' channels remained tiny at 1.6 percent during Q2-CY07. This small share indicates that banking through call centers, internet and the use of e-banking for non-financial transactions (balance enquiry, account statements etc.) remained limited.

**Table 12.1: Quarterly Trends in Electronic Transactions**

	CY05		CY06				CY07	
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
No. of Transactions (million)	16.3	18.0	20.2	21.7	24.1	25.5	28.0	
<b>Percent share in Total Electronic Transactions</b>								
Real Time On-line Banking	35.6	32.0	32.9	29.0	31.3	31.1	32.0	
ATM Transactions	48.5	49.5	50.0	52.6	51.9	51.6	51.4	
POS Transactions	14.5	17.6	16.0	16.9	15.2	15.8	15.1	
Others	1.4	1.0	1.0	1.5	1.6	1.5	1.6	

Source: Payment System department, SBP

In sharp contrast to over 50 percent share of ATM transactions in the overall number of electronic transactions, the value of these transactions constitute only 2.9 percent of the total value of electronic transactions (**Table 12. 2**). This suggests that ATM transactions usually involve small amounts, which is also evident from the average amount of Rs 6,127 per ATM transaction (based on Q2-CY07 data). On the other hand, the value of RTOB transactions constitutes over 95 percent of the total value. The remaining channels of e-banking have negligible share in the overall value of transactions.

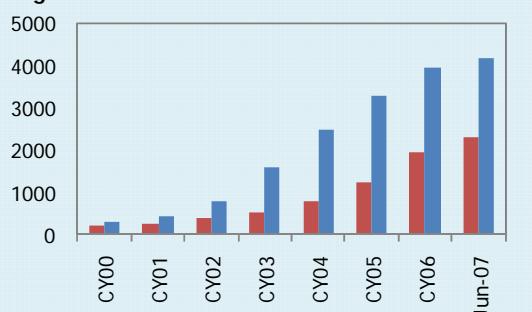
**Table 12.2: Quarterly Trends in Value of Electronic Transactions**

	CY05		CY06				CY07	
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
<b>Value of Transaction (billion Rupees)</b>	1,972	2,309	2,479	2,256	2,476	2,692	3,073	
<b>Percent share in Total value of Electronic Transactions</b>								
Real Time On-line Banking	87.9	97.1	96.8	96.0	95.9	95.9	96.4	
ATM Transactions	2.4	2.3	2.5	3.1	3.1	3.3	2.9	
POS Transactions	0.3	0.4	0.5	0.6	0.5	0.5	0.5	
Others	9.4	0.2	0.3	0.4	0.4	0.3	0.3	

Source: Payment System department, SBP

In sum, the above developments indicate that e-banking activities have witnessed substantial growth in recent years. However, the relatively small share of electronic transactions (at 24.9 percent) in the retail payment system reflects the scope for further improvement. The on-going developments in the e-banking infrastructure, especially the increasing number of ATMs and number of on-line branches (**Figure 12.3**) will strengthen the retail payment system. Specifically, while customers can access 2,294 ATMs across the country, the on-line branch network has increased to over 50 percent of total bank branches.

**Figure 12.3: Status of Automation**



Source: Payments System Department, SBP

### **12.2.1 Measures to Improve Retail Payment System**

To further improve ATM services — the most widely used mode of e-banking channel in Pakistan – and to adopt international best practices, SBP has issued guidelines for Standardization of ATM Operations and ‘Operational Guidelines on ATMs’. These guidelines are likely to stem the increasing number of complaints regarding malfunctioning of the ATMS. Furthermore, with the help of ATM Switch operators (M-Net and 1-Link), SBP has developed Services Level Agreement (SLA) and Standard Operating Procedures (SOP). The clearance of intra- and inter-switch ATM transactions has been streamlined by shifting settlement of inter-bank ATM transactions from switch operators (MCB Bank Limited and ABN Amro Bank) to the SBP.

### **12.3 Inter-Bank Clearing**

The State Bank of Pakistan (SBP) has outsourced the interbank clearing activity to National Institutional Facilitation Technologies (Pvt) Limited (NIFT). All type of conventional clearing services including Overnight Clearing, Same Day High Value Clearing and Intercity Clearing are offered through NIFT. Moreover, the National Bank of Pakistan also offers clearing and settlement services in cities where the SBP-BSC<sup>1</sup> offices are not established.

#### **12.3.1 Real Time Gross Settlement**

SBP is in the process of implementing the Real Time Gross Settlement system namely “Pakistan Real-time Inter-bank Settlement Mechanism’ (PRISM) in order to automate large value interbank transactions. This system will help in minimizing the risks associated with inter-bank transactions due to the time lag involved in settlement. SBP, along with NIFT, has finalized the country-wide netting scheme of clearing results. This will help in the smooth functioning of PRISM. Furthermore, a joint team from SBP and NIFT has conducted training sessions at all 16 offices of SBP-BSC during June and July 2007. Under this new scheme, NIFT will provide a consolidated country-wide net position to SBP-BSC for final settlement. The product-wise implementation of this scheme is at the final stage. All scheduled banks have already been advised by the SBP to streamline the accounting transactions through RTGS Circular No RTGS/248/65-2007 dated July 24, 2007.

#### **12.3.2 Society for Worldwide Inter-bank Financial Telecommunication (SWIFT)**

SWIFT is a secure communication system used to execute cross-border transactions by financial institutions. The system is also used for high value domestic financial transactions. SWIFT will be used as a primary communication channel to execute RTGS transactions in Pakistan. SBP is in the process of establishing three operational sites of SWIFT with the same facilities. These sites include Primary Site, Back-up Site and Disaster Recovery Site. In addition to these developments, Eastern Network SWIFT Services Bureau is established to further strengthen the SWIFT operations in the country. The successful implementation of these projects will provide low cost SWIFT connectivity to all the financial institutions of the country.

### **12.4 Conclusion**

The above developments indicate that the payment and settlement system in Pakistan has undergone substantial changes in recent years. The role of electronic transactions and related infrastructure is also being strengthened on an ongoing basis. The increasing but small share of electronic transactions in overall retail transactions signifies the room for future developments in the payment and settlement system. In conclusion, the payment and settlement system is in the process of evolving in response to the changes taking place in the domestic and international financial horizon.

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<sup>1</sup> There are 16 field offices of SBP's subsidiary, Banking Services Corporation (BSC) in various cities across the country.