

# 5 Payment and Settlement Systems

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## 5.1 Overview

Payment and settlement systems are the mechanisms that enable smooth transfer of funds between buyers/sellers, debtors/creditors etc., in an economy. The efficient transfer of money is essential for the flow of economic activities and hence for the growth and development of the country. A safe, reliable and efficient payments infrastructure is necessary for the stability of financial system, and consumers' confidence in it.

Payment systems infrastructure in Pakistan is evolving from traditional paper-based modes of payments to electronic payments. Electronic banking is gaining popularity in the country as various e-channels like Real Time Online Banking (RTOB), mobile banking, call centers and internet banking are becoming the preferred retail payment channels in addition to ATM network. Moreover, settlement of large value payments through Pakistan Real-time Interbank Settlement Mechanism (PRISM), the real-time gross settlement system of Pakistan, has greatly facilitated financial markets in reducing their settlement as well as systemic risks.

As a regulator, SBP has been playing an important role in promoting electronic payment systems by enhancing their safety and efficiency. For this purpose, various guidelines/instructions have been issued from time-to-time to give direction to the industry and to reduce the operational inefficiencies faced by customers while using these channels. In FY13, SBP directed the banks in Pakistan to adopt International Bank Account Number (IBAN)<sup>1</sup> for all local and domestic fund transfers. With the adoption of IBAN, Pakistan has joined the group of countries using this mechanism for ensuring reduced risk of data errors at the time of transferring funds. SBP also prepared and issued a draft concept paper for public feedback for development of e-Payment gateways, aimed at assuring safe and efficient routing of domestic and international payments carried out through various electronic channels; as well as enabling interoperability.

The Payment Systems Department (PSD) of the Bank is also playing an active role in developing and promoting cooperation among regional countries and contributing in reforming their national payment and settlement systems in order to facilitate trade and investment flows in the region. SBP is currently hosting Secretariat for SAARC Payment Council (SPC), which is a forum of central banks/monetary authorities of SAARC countries to collectively develop strategies and roadmaps for the improvement of payment systems in the this region. The SPC meets bi-annually in one of the member countries, on rotation basis.

## 5.2 Large Value Payment System

Large value payment system facilitates large value and low volume payments among banks or between participants in the financial markets that require urgent and timely settlement of their payments. In Pakistan, the final settlement of these large value and high priority payments takes place through PRISM, which is owned and operated by the SBP. Transactions that are settled through PRISM include settlement of Government securities' trade, interbank funds transfers, multilateral net

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<sup>1</sup> IBAN implementation is in progress across banking industry in Pakistan whereby Phase 1 (generation and notification of IBAN to customers) was completed in January, 2013. Phase 2 of implementation i.e. operational use of IBAN for domestic and international transactions, is currently in progress which is expected to be completed by December 2014.

settlement for cheque clearing<sup>2</sup>, Rupee leg of foreign exchange transactions, cash leg of capital market and high value customer transfers. Currently, PRISM has 45 direct participants consisting of 37 banks, 7 DFIs and a non-bank entity which is Central Depository Company. Although there is no minimum value set for the interbank fund transfers in PRISM; however there are caps on customer fund transfers i.e. Rs 1 million for single customer transfer and Rs 100,000 for multiple credit transfer messages.

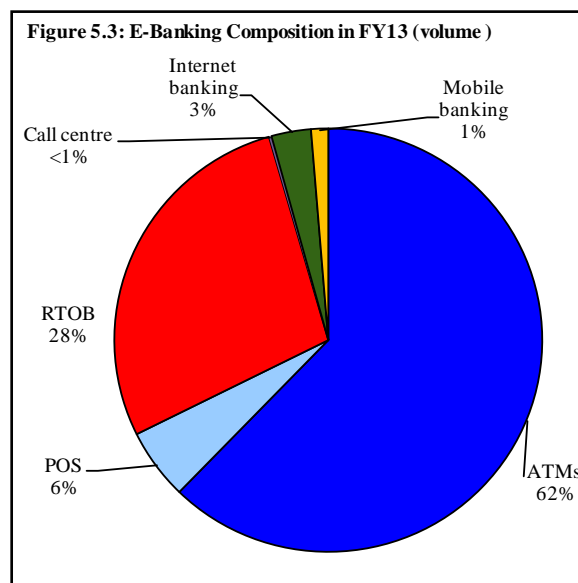
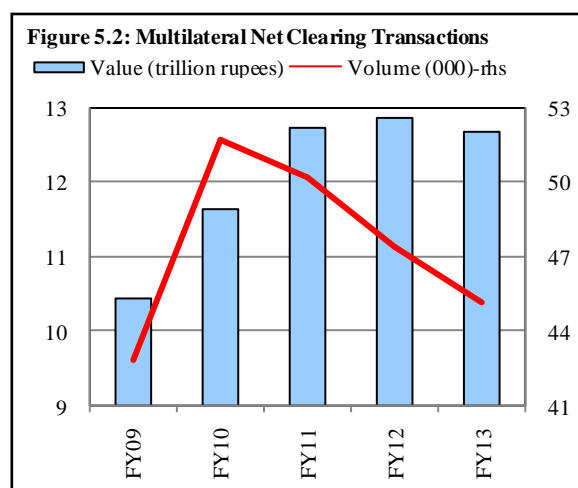
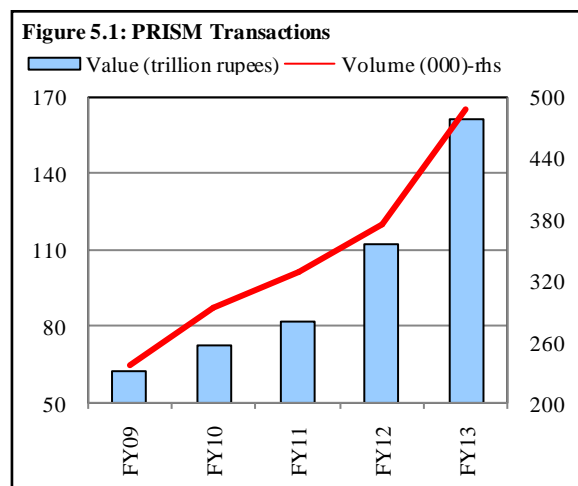
Since the launch of the PRISM system in 2008-09, there has been an increase of 107 percent in volume and 161 percent in value of transactions that were processed (Figure 5.1). FY13 witnessed a growth of 43 percent in value and 30 percent in volume of transactions that were processed. During FY13, total value of Rs 161.7 trillion was settled in PRISM of which Rs 45.3 trillion (28 percent) related to interbank bank settlement, Rs 12.7 trillion (7.8 percent) related to NIFT settlement and Rs 103.7 trillion (64.1 percent) related to the settlement of interbank trade of Government securities.

From FY09 to FY11, there has been an increase of above 16 percent in volume and 30 percent in value of retail clearing cheque-based transactions

that were processed by NIFT. However, over the last couple of years the volume of cheques decreased by 10 percent and maintained the value (Figure 5.2). Dependency on cheque is expected to fall further following integration of existing two switches M/s. MNet and ILink. The fund transfer facility is now available across these two switches along with other services like cash withdrawals.

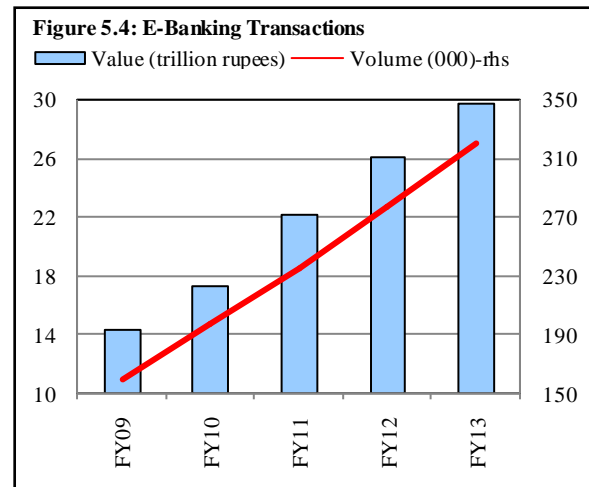
### 5.3 Retail Payment Systems

Retail payments are mainly consumer payments of relatively low value and can generally be classified as paper based (cheques, Pay orders, Demand Drafts, Telegraphic and Money transfers etc.) and electronic. The electronic payments in Pakistan involve specific types of instruments



<sup>2</sup> Due to its systemic importance, the multilateral net clearing position of cheques, as prepared by NIFT, is settled in PRISM.

and payment delivery channels like ATM, internet, point of sale (POS) terminals, mobile banking, call centers, and RTOB for providing the payment services to end-users. But, e-banking in Pakistan is dominated by ATM network as customers have greater access and availability of ATM machines. Furthermore, ATM network is available since well before the introduction of other e-channels. The number of transactions done through ATMs during FY13 had the highest share in e-banking transactions (62 percent) followed by those done through RTOB (28 percent). Only 0.2 percent of transactions were executed through call centers which was negligible in the composition of e-banking transactions in the country (**Figure 5.3**). During FY13, mobile banking increased in value and volume by 121 percent and 33 percent respectively whereas the value and volume of internet banking increased by 38 percent and 37 percent respectively. The overall volume and value of e-banking transactions increased more than 100 percent over the past five years. During FY13 the overall growth in e-banking volume was 16 percent while that of value was 14 percent (**Figure 5.4**).



Banks and financial institutions in the country have invested substantially in the ATM infrastructure. As a result the number of ATM increased to 37 per million people at the end of FY13, compared to 32 per million people at the end of FY12.

Advancement in the technological landscape, particularly in the banking and finance, is resulting in the rapid introduction of new products and payments delivery channels in the economy. Consumer demand for such channels, on the other hand, is also thriving which can be witnessed in the form of increased use of ATMs. However, ATMs are mainly, channels for cash disbursement and hence needs to be supplemented by non-cash delivery channels, including POS, internet banking and mobile enabled devices. The main challenge for SBP, as a regulator of banking and payment/settlement systems in the country, is to facilitate promotion of these new payment mechanisms/channels while ensuring safety and efficiency via sound regulatory/supervisory framework. SBP is working on a number of initiatives under three-pronged strategy (**Box 5.1**).

**Box 5.1: SBP Payment Systems Strategy and Initiatives**

SBP realizes that robust payment mechanisms are a pre-requisite for improving the financial inclusion in the country. SBP's three-pronged strategy for payment systems growth and development includes: (i) development of sound legal framework for innovative payment systems and instruments; (ii) robust and effective monitoring and oversight framework; and (iii) enabling environment for the growth and development of an efficient payments infrastructure.

SBP has started working on a number of initiatives including: (a) issuing regulations and guidelines on various type of e-Payment Gateways while processing requests for establishing new switches/gateways; (b) upgrading the existing RTGS system to cater for increased e-payments in future; (c) introduction of Cheque Truncation (conversion of physical cheque into a substitute electronic form for transmission to the paying bank) System for faster cheques' clearing; (d) standardization of Financial Articles; and (e) prevention of e-banking fraudulent transactions.

**Table 5.1** shows historic trends in various e-banking indicators. It is expected that in coming years, the country will move towards a less-cash society at an enhanced pace and with increased participation of general public in the financial system at a low cost, high efficiency and full security.

<b>Table 5.1: e-Payment System Indicators</b>						
<b>Item</b>	<b>Unit</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13<sup>P</sup></b>
<b>1 e-banking infrastructure</b>						
Online branches	number	6,040	6,671	7,416	9,291	10,013
Automated Teller Machines (ATMs)	number	3,999	4,465	5,200	5,745	6,757
Point of Sale (POS)	number	49,715	52,049	37,232	34,879	33,748
<b>2 Plastic cards number</b>						
Credit cards	thousand	1,664	1,613	1,385	1,231	1,088
Debit cards <sup>1</sup>	thousand	6,395	8,140	11,990	15,984	20,267
ATMs only cards	thousand	881	764	642	738	806
<b>3 e-banking transactions</b>						
Number of transactions	thousand	159,783	196,305	234,853	277,384	320,526
Value of transactions	billion rupees	14,374	17,332	22,142	26,023	29,690
<b>3.1 ATM transactions</b>						
Number of transactions	thousand	91,126	115,677	137,659	166,158	199,779
Value of transactions	billion rupees	669	905	1,196	1,589	1,979
<b>3.2 POS transactions</b>						
Number of transactions	thousand	18,280	15,677	14,287	17,447	17,311
Value of transactions	billion rupees	90	75	70	80	87
<b>3.3 RTOB transactions</b>						
Number of transactions	thousand	47,279	60,615	74,407	83,070	89,058
Value of transactions	billion rupees	13,538	16,202	20,652	23,969	27,091
<b>3.4 Other e-banking channels<sup>2</sup></b>						
Number of transactions	thousand	3,098	4,336	8,500	10,709	14,378
Value of transactions	billion rupees	77	150	224	385	534
1-Does not include ATM-only cards						P: Provisional
2-Internet, call centre & mobile banking						
Note: Sr. No. 1 to 2 contains data as on 30th June.						