

2 Payment System

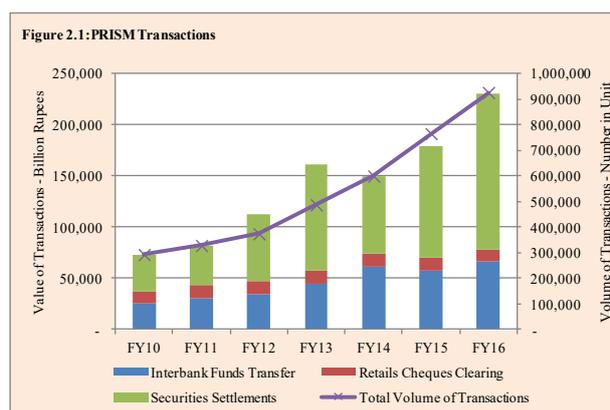
The development of a modern and robust Payment System” in the country is one of the key Strategic Goals of “SBP Vision 2020” adopted during the year. This Strategic Goal has been subdivided into four tactical objectives i.e. i) development of Pakistan’s National Payments Systems Blueprint, ii) modernizing payments, clearing and settlements infrastructure to improve efficiency, security, costs and access, iii) implementing a robust regulatory and supervisory framework for Financial Markets Infrastructure and iv) maintaining the quality, security and adequate supply of banknotes and coins in circulation. Furthermore, key activities have been identified for each tactical objective for ensuring smooth progress towards development of a robust payment system as envisaged in SBP Vision 2020.

A two pronged strategy has been developed to facilitate adoption of electronic/digital payments by the general public. First part of the strategy is expansion of infrastructure at three different levels i.e. electronic payment instruments (like cards and wallets), access points (like ATMs, Point of Sale and mobile devices) and central payment processors (like switches and gateways). The second part would focus on strengthening the regulatory and oversight frameworks for ensuring safety and soundness of these payment infrastructures. This will, in turn, enhance the trust and confidence of consumers on these alternate payment methods and promote their usage. Further, a comprehensive payment systems strategy is also being formulated to develop a robust, cost efficient, effective, secure and ubiquitous payments infrastructure in the country.

2.1 Large Value Payment System (PRISM)

Pakistan’s RTGS system known as “Pakistan Real-Time Interbank Settlement Mechanism” (PRISM) is used for large value interbank funds transfers by the financial institution as well as for settlements of trades of government securities and paper instruments. Presently, there are 43 direct participants of PRISM comprising 34 banks, 7 Development Finance Institutions (DFIs), 1 Microfinance Bank (MFB) and Central Depository Company (CDC).

Since its launch in 2008, a growing trend in the volume and value of transactions has been witnessed which shows that the system has been adopted by the financial institutions for their large value transactions. The value processed by the PRISM increased from Rs 179.6 trillion in FY15 to Rs 231.7 trillion in FY16 showing an increase of 29 percent; while the volume of transactions grew by 21 percent from 766 thousand in FY15 to 930 thousand in FY16 (see **Figure 2.1**).



To promote customers’ Fund Transfers using PRISM, all participant banks were advised to take immediate measures for ensuring availability of PRISM fund transfers facility at their branches from 9:00 am till 3:00 pm on working days and create awareness among general public through print media about the usage of this facility. Further, guidelines were issued for enabling Straight-Through-Processing (STP) capability between banks’ core banking systems and PRISM. This would enable large value payments of banks’ customers to be transferred in the inter-bank market in real time and will thus provide a safe alternative to cheques and other paper-based payment instruments.

In order to ensure timely interbank transfer of home remittances under the arrangement of Pakistan Remittances Initiative (PRI), the use of message type MT 102 in PRISM system was allowed free of charge¹. Banks receiving funds from abroad have been instructed to use this facility for immediately transferring the funds to beneficiary banks whereas the beneficiary banks have been advised to ensure timely credit to beneficiary accounts after they receive funds through PRISM. To further address the systemic risks inherent in the Large Value Payment System, the PRISM System up gradation project was initiated during the year to make it more robust, scalable and dependable. The up gradation project would be completed during FY17.

2.2 Development of Retail Payments Infrastructure

Development of safe, efficient and ubiquitous retail payment systems is not only a critical pre-requisite for ensuring a well functioning and growth oriented financial sector but is also a key enabler for promoting financial inclusion. SBP is, therefore, committed to transform the retail level digital payments landscape in the country in order to enable efficient delivery of financial services to all segments of population across the country.

2.2.1 Progress in Retail Payments

The retail payments are smaller in value but huge in volumes as general consumers make payments for their routine day to day purchases of goods and services using retail payment instruments. In Pakistan Cash is still a

dominant retail payment instrument, though the non cash electronic and card based payments are growing at a fast pace. The SBP being the payment system regulator has been promoting use of electronic and card based payments to improve efficiency of the payments system. The number of electronic transactions has increased significantly over the last few years, both in terms of value and volumes. During the year, the value and volume of e-banking transactions increased to 37 trillion and 550 million respectively. Similarly, there has been a steady growth in the infrastructure (like ATMs and POS machines) processing these transactions. As evident from the graphs (see **Figure 2.2**), since FY12, the ATM network grew by almost 100 percent and POS network by 46 percent. E-banking transactions have seen a rise of 96 percent and 43 percent in terms of value and volume respectively. Detailed statistics of of payment system are given in **Table 2.1**.

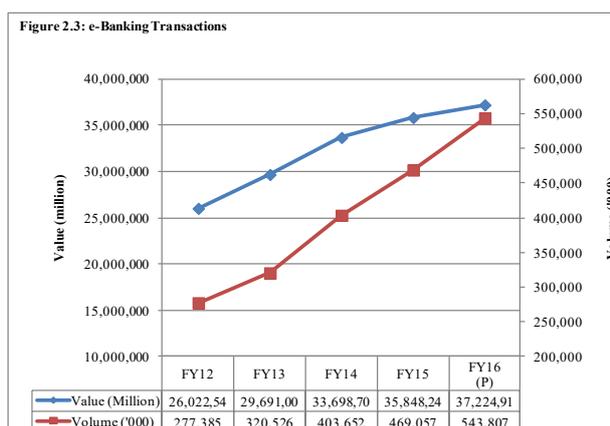
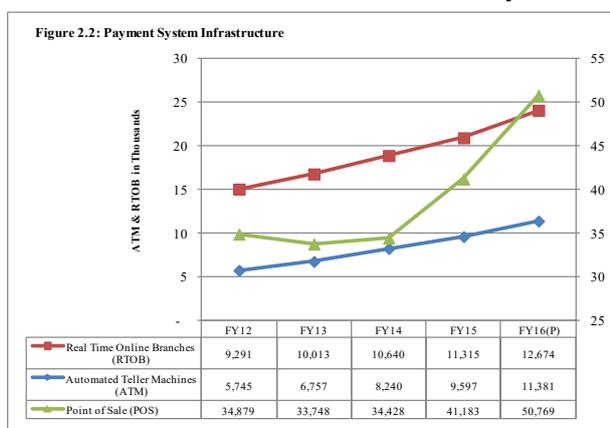


Table 2.1 Payment & Settlements Systems

Item		FY12	FY13	FY14	FY15	FY16p	CAG%*
1. Paper Based Instruments (Cheques, Pay Orders, Demand Drafts and others)							
No. of Transactions	Million	357.00	359.00	362.04	361.59	339.72	-1.01
Value of Transactions	Trillion Rs	99.00	107.00	115.16	127.16	134.41	6.36
2. Electronic Banking and its Composition							
No. of Transactions	Million	277.38	320.53	403.65	469.06	543.81	14.41
Value of Transactions	Trillion Rs	26.02	29.69	33.71	35.85	37.22	7.42
3. Real-time Online Banking (RTOB)							
No. of Transactions	Million	83.07	89.06	98.49	113.80	135.36	10.26
Value of Transactions	Trillion Rs	24.00	27.10	30.20	31.60	32.34	6.17
4. Automated Teller Machines (ATMs)							
No. of Transactions	Million	166.16	199.78	258.48	300.25	342.88	15.59
Value of Transactions	Trillion Rs	1.60	2.00	2.60	3.20	3.68	18.31
5. Point of Sale (POS)							
No. of Transactions	Million	17.45	17.31	24.29	32.11	39.22	17.59
Value of Transactions	Billion Rs	80.00	87.00	124.61	172.14	199.75	20.05
6. Internet Banking							
No. of Transactions	Million	6.93	9.59	15.55	16.00	18.99	22.36
Value of Transactions	Billion Rs	365.00	498.82	675.60	797.65	880.47	19.23
7. Mobile Banking							
No. of Transactions	Million	3.12	4.15	6.17	6.14	6.64	16.29
Value of Transactions	Billion Rs	12.00	27.02	67.44	106.89	112.53	55.85
8. Call Center & IVR Banking							
No. of Transactions	Thousand	663.00	639.23	666.01	765.56	714.81	1.51
Value of Transactions	Billion Rs	7.00	8.15	9.54	9.52	10.11	7.10
9. Numbers of:							
i. Online Branches	Thousand	9.29	10.01	10.64	11.32	12.67	6.41
ii. ATMs	Thousand	5.75	6.76	8.24	9.60	11.38	14.65
iii. Credit Cards	Million	1.20	1.20	1.33	1.37	1.45	3.33
iv. Debit Cards	Million	16.00	20.20	23.06	25.02	27.41	11.39
v. Point of Sale (POS)	Thousand	34.88	33.75	34.43	41.18	50.77	7.80

P - Provisional as on June 30, 2016

* Compound Annual Growth Rate(CAGR)

2.2.2 Launch of First Domestic Payment Scheme, PayPak

The relatively low acceptance of payment cards and high cost associated with card based payments particularly in the form of high Merchant Discount Rate (MDR) have been amongst the major impediments to the expansion of cash-less payments. The people who want to make purchases through their cards have to pay the MDR in addition to the cost of their purchases. In order to provide less expensive and independent card solution to customers in Pakistan, 1-Link (Pvt) Ltd. was allowed to launch the first domestic payment card- the PayPak in Pakistan. The domestic card will allow the local transactions to be routed, recorded and settled within Pakistan. It will be highly cost effective for issuing banks, merchants and ultimately for the consumers and thus will be instrumental in greater acceptance and expansion of card based payments. A number of banks are at an advanced stage of finalization of negotiations with 1-Link to issue PayPak; it is highly likely that at least a few of them will issue the domestic payment card during FY17.

2.2.3 Membership of NIFT for Microfinance Banks (MFBs)

The cheques being cleared through NIFT system are settled on country-wide multilateral net settlement basis in PRISM. The direct membership of NIFT is linked with the membership of PRISM in order to address the systemic risk associated with non-settlement of clearing batches. Since MFBs were indirect members of the Clearing House, they were experiencing delays in receiving funds for their customers especially in remote areas. To address the issue, a mechanism for providing direct membership of NIFT to MFBs was devised and launched during the year in consultation with all stakeholders. This would give further boost to MFBs business enabling them to better serve the low income population and micro enterprises that are largely un-served or underserved by commercial banks.

2.2.4 Regulations for Prepaid Cards

Globally, issuance of prepaid cards is a fast growing business. These cards are typically used for low value purchases and do not require a bank account. Customers can walk to a bank branch or the authorized sellers of a bank and purchase a prepaid card. In Pakistan, prepaid cards are being used for a variety of purposes including but not limited to payroll, travel, Hajj, Umra and education etc. Keeping in view the need for issuing standard regulations governing the issuance and usage of such cards the “Regulations for Prepaid Cards” were issued during the year to provide an enabling and level playing field for all the existing and potential issuers of such cards. These regulations were developed as per the international recommendations such as those issued by FATF to minimize the risks related to Money Laundering and Terrorist Financing.

2.2.5 Standardization of Financial Articles

In order to bring uniformity and standardization and mitigate the risk of counterfeiting of financial articles i.e. Cheques, Pay orders, Demand drafts etc, the task of standardizing the financial articles was initiated during the year and standardized layout and security features of cheques, Pay orders and Demand Drafts were introduced. The standardization and enhancement in security features of financial articles will reduce the risk of frauds in these instruments besides being useful in implementing automated systems for processing these instruments.

2.2.6 Enhancing the Security of Retail Payments Infrastructure

The cyber attacks on banking and payment channels have steadily increased in the recent past. To ensure the safety and security of the financial system, SBP has been issuing instructions to banks for improving security of IT systems. During the year, two important set of instructions relating to the Security of Payment Cards and Internet Banking were issued. The ‘*Regulations for Payment Card Security*’ issued under Payment Systems and Electronic Fund Transfers Act, 2007 prescribed the minimum operational, administrative, technical and physical safeguards to secure Payment Card operations in Pakistan. The regulations are in line with international best practices and standards and are applicable on all Financial Institutions, Payment System Operators and Payment Service Providers who are in the business of issuing, acquiring and processing Payment Cards in Pakistan. The social transfer cards such as Benazir Income Support Program cards are however excluded from the application of these regulations. Similarly the ‘*Regulations for the Security of Internet Banking*’ issued during the year required banks to develop formal Internet Banking Security Framework containing administrative, technical and physical safeguards based on best international practices. The regulations will bring much needed improvement in internet banking security infrastructure and thus would lead to expansion of internet banking services in the country at an increased pace.

2.2.7 Improved Data Collection and Revamping

In order to provide timely information about the trends in payment systems, SBP collects and compiles data about various payment channels and instruments in the country and disseminates it for the general public. Further, the data is also used for oversight purposes by SBP. Recently, after detailed discussions and deliberations, new data reporting templates covering the increased number of variables were issued for collecting detailed information from banks and other payment service providers about all the channels and participants of the payment system. This would enable SBP to perform proactive oversight of the payment channels and instruments while providing enhanced information about trends and developments in the country's payment system.

2.3 Improving efficiency of Government Receipts and Payments

Improving efficiency of government receipts and payments system is an important component of SBP vision 2020. This will be achieved through diversification of tax payment options for the tax payers and optimum use of innovations and developments in Information and Communication Technology. As a first step towards diversification of tax payment options for general public, 'The Bank of Punjab (BOP) was engaged as SBP agent during the year in addition to NBP to collect Punjab Government taxes and duties. This is the first time SBP appointed an agent other than NBP and based on the experience with BOP, other commercial banks could also be considered for collection of government taxes and duties. The diversification is aimed at facilitating the tax payers and bringing much needed competition in government banking business and thus improving efficiency and customer service quality.

Similarly to enhance efficiency in processing government payments the 'E-Cheque Reconciliation System' developed by PIFRA² was implemented at SBP-BSC Islamabad on a pilot project basis. For this purpose, a dedicated fiber optic line was laid between SBP-BSC Islamabad and AGPR. Through this connection between AGPR and SBP BSC Islamabad, all SBP BSC offices across the country have been connected with AGPR. After the successful completion of pilot project in Islamabad, the system was implemented in SBP BSC offices in the four provincial capitals. The implementation of the system in other SBP BSC offices is under process and would be completed during FY17. The NBP, an important SBP agent for government banking business, is also being pursued to implement the system in all its branches dealing with government payments. The system not only eliminates the hassle of manually searching the cheque numbers from the manual schedule but also addresses the reconciliation issues between SBP/NBP and AGPR/provincial treasuries. This would also minimize the possibilities of frauds in government payments. The initiation of implementation E-Cheque reconciliation system in SBP BSC offices across the country is a step towards SBP's plans to minimize the usage of paper cheques in government payments and directly pay the funds in the beneficiaries' bank accounts on receipt of government advice.

2.4 Regional/International Cooperation in Payment Systems

The Secretariat of SAARC Payment Council (SPC) is currently housed at State Bank of Pakistan. The SPC is taking forward the vision of SAARCFINANCE Group for improving the payment and settlement systems in the SAARC region. So far, 17 meetings of the SPC have been held in member countries (on rotation basis). SBP being the secretariat, works with the host country in arranging the meetings and other events that are held on sidelines. The Secretariat organized following events during FY16:

² Project to Improve Financial Reporting and Auditing

- 17th SPC meeting was organized on 3rd December, 2015 at Cox's Bazar, Bangladesh. During the meeting, member countries discussed the progress of SPC Road Map and expressed satisfaction on the progress made by the Secretariat in imparting knowledge and skills through workshops and seminars. The Forum also discussed current issues and developments pertaining to payment systems technology, security, virtual currencies and financial inclusion in the SAARC region and explored possible solutions. The meeting also reviewed the draft Concept Paper on Single Harmonized Payments Mechanism (SHPM) and the Payment Systems Risk Matrix for the SAARC countries developed by the Secretariat for evaluating the causes of existing risks that central banks of the region are facing in the area of payment systems. The Secretariat would move to Reserve Bank of India (RBI) by the end of December 2016. The 18th SPC Meeting is scheduled to be held in Maldives in October 2016.
- The Secretariat also conducted 3rd SPC Seminar alongside the 17th Meeting in Bangladesh and invited experts from Reserve Bank of Australia and National Payments Council of India to talk on "Virtual Currencies" and "Cyber Security in Payment Systems".
- SBP also organized a Seminar on Correspondent Banking and Payment Systems in the SAARC region in March 2016 in Islamabad for central bankers of SAARC member countries.

2.5 Implementation of Currency Management Strategy

Notwithstanding the efforts and initiatives to develop a robust infrastructure to promote and facilitate electronic payments, cash is a dominant component of our payment system and is likely to remain so in the foreseeable future. Thus concerted efforts are being made to modernize the currency management system to ensure adequate supply of good quality banknotes across the country. In order to reform and transform the currency management function both in the banking industry and the Central Bank, a detailed Currency Management Strategy was issued in August 2015. The key objectives of the strategy include: i) automation of cash management function in the banking industry to ensure disbursement of machine authenticated good quality banknotes to general public, ii) rationalization of SBP BSC currency management operations and increasing role and participation of commercial banks in currency management, iii) rigorous supervision of commercial banks and cash processing centers for assuring good quality banknotes in circulation, iv) promoting interbank trading of cash, and v) introduction of modern, reliable and easily recognizable security features in banknotes.

The strategy inter alia requires banks to issue only machine sorted and authenticated banknotes to public to ensure that no counterfeit banknote passes through the banking system. In the first phase starting from Jan-2017, the requirement of issuance of machine authenticated banknotes would be applicable on higher denomination banknotes (Rs 500 and above) in 30 big cities; whereas in the second phase starting from Jan-2018, all denomination banknotes to be issued by banks from their branches and ATMs across the country shall be machine authenticated. The implementation of the strategy is well on track as almost all the banks except a few public sector banks have got their machines tested and certified by SBP and were at advanced stage of installation of cash processing machines in their CPCs and/or branches in the 30 big cities. The banks not installing their own machines by the given dead line will have to make arrangements with other banks/CPCs to get their cash processed to disburse machine processed cash to their clients. Thus from January 2017, a new era of cash processing would start bringing Pakistan at par with regional and international best practices in currency management.

2.5.1 Enhancement of Security Features of Higher Denomination Banknotes

In order to further strengthen the security features of higher denomination banknotes (Rs 500 and above) that are more attractive for counterfeiters, a joint committee of SBP, Pakistan Security Printing Corporation, Security Papers Limited and SICPA Inks Pakistan recommended addition of some advanced Level-I and Level-II security features in the higher denomination banknotes. The committee's proposal after approval by SBP Board was also approved by the Federal Cabinet. The higher denomination banknotes with enhanced security features will be issued by the end of first quarter of CY2017.

2.5.2 Awareness Campaign Regarding Security Features of Banknotes

To enhance public awareness and understanding about security features of banknotes, SBP during the year launched videos and Smartphone Application about the security features. The awareness about the security features is the first line of defense against counterfeits as it enables the public to easily differentiate between the genuine and fake notes. These videos have been aired by PTV and other TV channels as public service message and are also available on SBP's and commercial banks' websites. Similarly, the smart phone application "Pakistani Banknotes" can be downloaded from Apple Store and Google Play Store. The banks have also been advised to publicize these videos and smart phone application on their ATMs and in waiting areas of their branches. Furthermore, the awareness campaign was launched across the country through SBP BSC field offices wherein seminars were held in chambers of commerce, trade bodies, market committees, schools, colleges and universities on security features of our banknotes.