# **2** Payment Systems

Efficient and reliable payment and settlement systems contribute immensely towards economic growth and financial stability in a country. Any disruption in the payment system could not only be devastating for the banking industry but also for the economy as a whole. SBP being the custodian of payment system is playing an overarching role in various capacities such as the regulator, operator and facilitator of National Payment Systems. During the year, it continued strengthening and modernizing the payment system infrastructure both within the central bank and the banking industry, revamping the regulatory framework, and enhancing payment options for the general public, corporate sector, and Federal and Provincial governments.

## 2.1 Government Payments and Receipts

SBP provides full range of banking services to the Federal and Provincial governments. All the collections and payments of Federal and Provincial governments are routed through the central bank. The government is the largest player in the country's payment system and as such improvement in efficiency of governments' receipts and payment systems will have a major positive impact on the efficiency of the country's payment system. The reforms in the government receipts and payment system is thus on the priority agenda of SBP. It has plans to diversify tax payment options for the tax payers and gradually moving to paperless transactions for all government payments. During the year, an understanding with the government of Punjab was reached to allow other banks in addition to NBP and SBP-BSC to collect the provincial government taxes. This will be a pilot for allowing other banks to provide banking services to the governments as agents of SBP which if successful will pave the way for opening the government banking business for other banks. Similarly, as a part of its efforts to reform government payments, different government departments maintaining accounts with SBP-BSC have been pursued to shift from manual issuance of cheques to electronic funds transfer mechanism, whereby funds could be transferred to the beneficiaries' accounts directly on receipt of electronic advice from the government. Besides increasing efficiency and transparency in government payments, this will also be instrumental in improving financial inclusion.

#### 2.2 Currency Management

Despite continuous increase in card based, digital and electronic payment volumes over the years, cash still maintains its dominance in our payment system. The SBP, thus, has been making concerted efforts to improve the quality of banknotes in circulation, check counterfeiting and ensure adequate supply of banknotes across the country. The replacement of soiled bank notes and availability of good quality bank notes across the country requires institutional commitment as well as operational innovation. To ensure adequate and uninterrupted supply of good quality banknotes across the country, SBP is not only using its subsidiary SBP-BSC and its 16 field offices but has also made arrangements with NBP chest branches. It also makes arrangements for ensuring adequate supply of the fresh banknotes on special occasions like Eid; on the occasion of Eid-ul-Fitr during FY15, fresh notes worth Rs 154.5 billion were issued through SBP-BSC field offices as compared to Rs 138.6 billion issued during FY14 on the same occasion.

During the year, SBP developed a comprehensive strategy (see box 2.1) to reform cash management function in the country. The strategy envisages automation of cash processing function both in the central bank and the banking industry, engaging and encouraging banks' participation in cash sorting and authentication function, promoting interbank exchange/trade of cash and rationalizing SBP role in

collection of re-issuable cash from banks. The SBP BSC has already initiated the process for procuring high speed banknotes sorting and authentication machines as well as medium sized desktop banknotes sorters. Further, to implement the strategy, a major project for automation of cash processing function in the central bank was initiated and detailed instructions were given to banks to automate their cash processing function by January 2017. Successful implementation of the strategy will bring efficiency in cash management function, improve quality of banknotes in circulation, check counterfeiting and thus increase public confidence in the national currency.

## **Box 2.1: SBP Strategy to Automate Cash Processing Functions**

The key features of SBP currency management strategy, discussed in the international conference on currency management held in February 2015, are given below:

- Automation of cash management function in the banking industry to ensure availability of machine authenticated good quality banknotes to general public
- Rationalization of SBP BSC currency management operations and increasing commercial banks' role and participation in currency management
- Improved supervision and regulation of commercial banks and cash processing centers/houses for ensuring good quality bank notes in circulation and combating counterfeiting
- Introduction of modern, reliable and easily recognizable security features in banknotes

To achieve the above objectives, SBP BSC has already initiated the process for procuring high speed banknotes sorting and authentication machines as well as medium sized desktop banknotes sorters. Further, SBP has also issued detailed instructions to banks for standardizing cash management practices at commercial banks. These instructions are aimed at:

- (i) Ensuring issuance/disbursement of machine authenticated genuine and fit banknotes by banks through their branches/ATMs
- (ii) Promoting interbank cash exchange/trade
- (iii) Acceptance of fit/re-issuable banknotes by SBP-BSC only as a last resort against a service charge
- (iv) Eliminating redundancies in the existing cash operations of banks and promoting clean notes culture in the economy

#### 2.3 Retail Payment Systems

Retail Payments are processed either through paper based instruments or electronic payment systems. Paper based payment instruments include cheques, pay orders, demand drafts, telegraphic and money transfers. Electronic payment instruments, typically being used in Pakistan, include various types of plastic cards and electronic credit transfers that could be used over various delivery channels and devices like ATMs, internet, Point of Sale Terminals, mobile phones, call centers and a network of Real Time Online Branches (RTOB).

Traditionally, efforts for the development of Payment Systems in Pakistan have remained directed at strengthening the large value payment systems, primarily to mitigate systemic shocks inherent in this area. In recent years, there has been an increasing emphasis of policy makers, globally, on improving access to financial services at retail level. The improvements in technology coupled with the introduction of low cost electronic mobile devices have resulted in consumers' increasing demand for banking and payment services on electronic delivery channels available 24/7 at relatively lower cost. The commercial banks and other financial institutions are actively launching new payment cards including prepaid cards and offering funds transfer services and wallet accounts using internet banking and mobile apps.

Over the last five years, the volume of e-banking transactions has increased from 235 million to 469.1 million (almost 100 percent) with a corresponding increase in value from Rs 22.1 trillion to Rs35.8 trillion (68 percent). For detailed statistics on e-banking (see table 2.1).

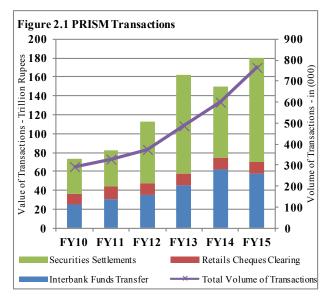
Paper Based Instruments (Cheques, Pay Orders, Demand Drafts and others)   Paper Based Instruments (Cheques, Pay Orders, Demand Drafts and others)   No. of Transactions	Table 2.1 Payment & Settlements Systems							
Demand Drafts and others  No. of Transactions   Million   343.76   357   359   362.04   361.59   1.30   1	Item		FY11	FY12	FY13	FY14	FY15p	
No. of Transactions   Million   343.76   357   359   362.04   361.59   1.30	1. Paper Based Instruments (Cheques, Pay Orders,							
Value of Transactions	Demand Drafts and others)							
2. Electronic Banking and its Composition No. of Transactions Value of Transactions No. of Transactions No								
No. of Transactions   Million   234,85   277,38   320,53   403,65   469,06   24,93   Value of Transactions   Trillion Rs   22.14   26.02   29.69   33.71   35.85   15.48	Value of Transactions	Trillion Rs	91.05	99	107	115.16	127.16	9.91
No. of Transactions   Million   234,85   277,38   320,53   403,65   469,06   24,93   Value of Transactions   Trillion Rs   22.14   26.02   29.69   33.71   35.85   15.48	2. Electronic Banking and its Composition							
3. Real-time Online Banking (RTOB) No. of Transactions Value of Transactions Value of Transactions No. of		Million	234.85	277.38	320.53	403.65	469.06	24.93
No. of Transactions   Million   74.41   83.07   89.06   98.49   113.80   13.24	Value of Transactions	Trillion Rs	22.14	26.02	29.69	33.71	35.85	15.48
No. of Transactions   Million   74.41   83.07   89.06   98.49   113.80   13.24	3. Real-time Online Banking (RTOB)							
4. Automated Teller Machines (ATMs) No. of Transactions Value of Transactions  No. of Transactions  Million  137.66  166.16  199.78  258.48  300.25  29.53  Alue of Transactions  Trillion Rs  1.20  1.60  2.00  2.60  3.20  41.67  5. Point of Sale (POS) No. of Transactions  Million  14.29  17.45  17.31  24.29  32.11  31.18  Value of Transactions  Million  Million  4.44  6.93  9.59  15.55  16.00  65.16  Value of Transactions  Million  8 illion Rs  209.00  365.00  498.82  675.60  797.65  70.41  7. Mobile Banking No. of Transactions  Million  3.29  3.12  4.15  6.17  6.14  21.71  Value of Transactions  Billion Rs  8.00  12.00  27.02  67.44  106.89  309.03  8. Call Center & IVR Banking No. of Transactions  Billion Rs  Thousand  778.00  663.00  639.23  666.01  765.56  -0.40  Value of Transactions  Billion Rs  77.00  7.00  8. In the second of the second	<u> </u>	Million	74.41	83.07	89.06	98.49	113.80	13.24
No. of Transactions   Million   137.66   166.16   199.78   258.48   300.25   29.53   Value of Transactions   Trillion Rs   1.20   1.60   2.00   2.60   3.20   41.67	Value of Transactions	Trillion Rs	20.70	24.00	27.10	30.20	31.60	13.16
No. of Transactions   Million   137.66   166.16   199.78   258.48   300.25   29.53   Value of Transactions   Trillion Rs   1.20   1.60   2.00   2.60   3.20   41.67	4 Automated Teller Machines (ATMs)							
5. Point of Sale (POS) No. of Transactions Value of Transactions Million No. of Transactions No. of Transactions No. of Transactions No. of Transactions Thousand No. of Transactions Thousand No. of Transactions Thousand No. of Transactions Thousand No. of Transactions No. of Transactions Thousand No. of Transactions No. of Transactions No. of Transactions Thousand No. of Transactions No. of Transactions No. of Transactions Thousand No. of Transactions No. of	· · · · · · · · · · · · · · · · · · ·	Million	137.66	166.16	199.78	258.48	300.25	29.53
No. of Transactions   Million   14.29   17.45   17.31   24.29   32.11   31.18	Value of Transactions	Trillion Rs	1.20	1.60	2.00	2.60	3.20	41.67
No. of Transactions   Million   14.29   17.45   17.31   24.29   32.11   31.18	5. Point of Sale (POS)							
6. Internet Banking No. of Transactions Walue of Transactions Billion Rs  Million A 4.44 B 6.93 Billion Rs Bil	· · ·	Million	14.29	17.45	17.31	24.29	32.11	31.18
No. of Transactions   Million   4.44   6.93   9.59   15.55   16.00   65.16     Value of Transactions   Billion Rs   209.00   365.00   498.82   675.60   797.65   70.41     7. Mobile Banking   No. of Transactions   Million   3.29   3.12   4.15   6.17   6.14   21.71     Value of Transactions   Billion Rs   8.00   12.00   27.02   67.44   106.89   309.03     8. Call Center & IVR Banking   No. of Transactions   Thousand   778.00   663.00   639.23   666.01   765.56   -0.40     Value of Transactions   Billion Rs   7.00   7.00   8.15   9.54   9.52   9.01     9. Numbers of:	Value of Transactions	Billion Rs	70.00	80.00	87.00	124.61	171.14	36.12
No. of Transactions   Billion Rs   209.00   365.00   498.82   675.60   797.65   70.41	6. Internet Banking							
7. Mobile Banking No. of Transactions Million 3.29 3.12 4.15 6.17 6.14 21.71 Value of Transactions Billion Rs 8.00 12.00 27.02 67.44 106.89 309.03  8. Call Center & IVR Banking No. of Transactions Thousand 778.00 663.00 639.23 666.01 765.56 -0.40 Value of Transactions Billion Rs 7.00 7.00 8.15 9.54 9.52 9.01  9. Numbers of:  i. Online Branches ii. ATMs Thousand 7.42 9.29 10.01 10.64 11.32 13.14 iii. Credit Cards Million 1.40 1.20 1.20 1.33 1.37 -0.54 iv. Debit Cards Million 12.00 16.00 20.20 23.06 25.02 27.13	No. of Transactions	Million	4.44	6.93	9.59	15.55	16.00	65.16
No. of Transactions         Million         3.29         3.12         4.15         6.17         6.14         21.71           Value of Transactions         Billion Rs         8.00         12.00         27.02         67.44         106.89         309.03           8. Call Center & IVR Banking             No. of Transactions         Thousand         778.00         663.00         639.23         666.01         765.56         -0.40           Value of Transactions         Billion Rs         7.00         7.00         8.15         9.54         9.52         9.01           9. Numbers of:         i. Online Branches         Thousand         7.42         9.29         10.01         10.64         11.32         13.14           ii. ATMs         Thousand         5.20         5.75         6.76         8.24         9.60         21.14           iii. Credit Cards         Million         1.40         1.20         1.20         1.33         1.37         -0.54           iv. Debit Cards         Million         12.00         16.00         20.20         23.06         25.02         27.13	Value of Transactions	Billion Rs	209.00	365.00	498.82	675.60	797.65	70.41
Numbers of:   1. Online Branches   Thousand   Thousan	7. Mobile Banking							
8. Call Center & IVR Banking No. of Transactions Thousand Thousand Thousand Thousand Tousand T	No. of Transactions		3.29	3.12	4.15	6.17		21.71
No. of Transactions         Thousand Value of Transactions         778.00 (663.00 639.23 666.01 765.56 -0.40 7.00 7.00 8.15 9.54 9.52 9.01           9. Numbers of:         i. Online Branches         Thousand 7.42 9.29 10.01 10.64 11.32 13.14 11.32 11.4 11.4 11.4 11.4 11.4 11.4 11.4 11.	Value of Transactions	Billion Rs	8.00	12.00	27.02	67.44	106.89	309.03
Value of Transactions       Billion Rs       7.00       7.00       8.15       9.54       9.52       9.01         9. Numbers of: <ul> <li>i. Online Branches</li> <li>ii. ATMs</li> <li>iii. ATMs</li> <li>iii. Credit Cards</li> <li>iv. Debit Cards</li> </ul> Million     1.40     1.20     1.20     1.33     1.37     -0.54         iv. Debit Cards       Million       12.00       16.00       20.20       23.06       25.02       27.13	8. Call Center & IVR Banking							
9. Numbers of:  i. Online Branches  Thousand 7.42 9.29 10.01 10.64 11.32 13.14 ii. ATMs Thousand 5.20 5.75 6.76 8.24 9.60 21.14 iii. Credit Cards Million 1.40 1.20 1.20 1.33 1.37 -0.54 iv. Debit Cards Million 12.00 16.00 20.20 23.06 25.02 27.13	No. of Transactions	Thousand	778.00	663.00	639.23	666.01	765.56	-0.40
i. Online Branches Thousand 7.42 9.29 10.01 10.64 11.32 13.14 ii. ATMs Thousand 5.20 5.75 6.76 8.24 9.60 21.14 iii. Credit Cards Million 1.40 1.20 1.20 1.33 1.37 -0.54 iv. Debit Cards Million 12.00 16.00 20.20 23.06 25.02 27.13	Value of Transactions	Billion Rs	7.00	7.00	8.15	9.54	9.52	9.01
i. Online Branches Thousand 7.42 9.29 10.01 10.64 11.32 13.14 ii. ATMs Thousand 5.20 5.75 6.76 8.24 9.60 21.14 iii. Credit Cards Million 1.40 1.20 1.20 1.33 1.37 -0.54 iv. Debit Cards Million 12.00 16.00 20.20 23.06 25.02 27.13								
ii. ATMs iii. Credit Cards iii. Credit Cards iii. Credit Cards Million 1.40 1.20 1.20 1.33 1.37 -0.54 iv. Debit Cards Million 12.00 16.00 12.00		Thousand	7 42	9 29	10.01	10.64	11 32	13.14
iii. Credit Cards Million 1.40 1.20 1.20 1.33 1.37 -0.54 iv. Debit Cards Million 12.00 16.00 20.20 23.06 25.02 27.13								
iv. Debit Cards Million 12.00 16.00 20.20 23.06 25.02 27.13								
TI 1 27.22 24.00 22.75 24.42 41.10 27.5								
	v. Point of Sale (POS)	Thousand	37.23	34.88	33.75	34.43	41.18	2.65

P - Provisional as on June 30, 2015

## 2.4 Large Value Payment System

PRISM system is used for large value fund transfers and settlement of paper instruments clearing and government securities trading. The value processed by the PRISM system grew from Rs 62.2 trillion in FY09 to Rs 179.6 trillion in FY15 indicating an increase of 224 percent in the number of total transactions and 189 percent in value.

During FY15, PRISM system processed payments worth approximately 8 times of Country's GDP (at current basic prices). It settled 766,113 transactions worth Rs 179.6 trillion during FY15, showing an increase of 28 percent in volume and 20 percent in terms of value as compared to FY14. At present, there



are 43 participants of PRISM comprising 34 banks, 7 Development Finance Institutions (DFIs), 1 MFB and Central Depository Company (CDC).

## 2.5 Standardization of Cheques and other Payment Instruments

The SBP, during the year, continued its efforts to standardize payment instruments. Last year, it had introduced standardized layout and security features of cheques and made it mandatory for banks to use International Bank Account Number (IBAN). In the second phase of the project, the work on standardization of pay orders, demand drafts and cashier cheques were initiated during the year, which is likely to be completed in first half of FY16. The standardization of layout and security features of payment instruments will check counterfeiting of the instruments and thus will be instrumental in promoting culture of payments through cheques.

### 2.6 Rules for Payment System Operators and Payment Service Providers

Payment System Operators (PSOs) and Payment Service Providers (PSPs) are important components of financial market infrastructure of the country. PSOs and PSPs help in developing an environment for efficient, convenient, and secure processing of payment transactions. As part of a broader strategy to create an enabling regulatory environment and bring systemic harmony, introduce standardization and setting benchmarks, SBP issued detailed rules for PSOs and PSPs in October 2014. These rules will not only bring existing payment systems operators under a formal regulatory ambit but would also provide conducive environment for establishment of new payment processing institutions for automated clearing house, electronic payment gateway for e-commerce, ATM switches (including white label ATMs), domestic POS and pay card schemes.

#### 2.7 SAARC Payment Council - Regional Cooperation in Payment Systems

SBP is currently managing the secretariat of SAARC Payment Council (SPC). SPC is a forum of central banks of SAARC countries for developing collective strategies for improvements in the payment systems in the region. The SPC meets bi-annually in one of the member countries on rotation basis. The following programs were organized during the year:

• The SAARC Payment Initiative (SPI) Secretariat arranged the 16th SAARC Payments Council (SPC) meeting in March 2015 at Lahore. During the meeting developments in the area of payment systems of SAARC member countries were reviewed. The progress made as

- per the roadmap of the forum on harmonization of payment systems, risk mitigation, status and developments in RTGS systems was also reviewed.
- The Secretariat organized second SPC seminar attended by a representative of the BIS Committee on Payments and Market Infrastructures (CPMI). The representative provided an overview of the CPMI, and Principles for Financial Market Infrastructures (PFMI) and issues related to their implementation.
- The SPI Secretariat also arranged two workshops for all SAARC delegates as well as participants from banking industry on 'Payments Technology for Financial Inclusion and "Financial Market Infrastructure in Pakistan: Issues and Challenges". The workshops were hosted by SBP as part of its efforts to provide for an interactive forum to the SAARC central banks for information and knowledge sharing.