

3 Payment and Settlement Systems

3.1 Overview

An efficient payment and settlement system (PSS) is a key component of the financial and banking infrastructure, which not only contributes towards stability of the financial system but also facilitates each and every economic activity. An efficient and effective PSS that ensures payment and settlement of all transactions at minimum cost is thus critically important for smooth functioning of economy as well as its growth and development.

In recent years, the speed and pace of developments in information technology have played a leading role in improving the level of sophistication of the PSS. Being cognizant of these developments and contribution of PSS to financial stability, SBP is actively working to reform the PSS in the country and has made concerted efforts for improving its efficiency and effectiveness. The development of Real Time Gross Settlement (RTGS) with the name of Pakistan Real-time Inter-bank Settlement Mechanism (PRISM) in the country is one response to meet the growing need of an efficient PSS.

During FY09 the BSC continued to assist SBP in maintaining an efficient, safe and reliable payment system through its field offices across the country. It contributed in SBP's plans for upgrading automated clearing services and overseeing/monitoring thereof, provided inter-bank settlement facility to financial institutions and issued currency notes and coins for facilitating cash based transactions. The BSC offices are also playing an active role in implementing and strengthening the PRISM; a number of experienced officers has been deputed with the PRISM project team to provide logistic support and relevant information.

3.2 Clearing Services

The BSC field offices oversee the automated processing of financial instruments carried out by National Institutional Facilitation Technologies (NIFT) (Pvt.) Limited in their areas of jurisdiction. NIFT has set up data centers for providing automated clearing services to banks and financial institutions; modern image based facilities have been established at 15 cities where the BSC offices are located as well as in other major cities. Besides, NIFT has set up a grid of automated clearing which provides efficient and cost effective intercity clearing involving 20 major and over 164 satellite cities in Pakistan. It has also introduced web based facilities whereby the clearing results can be accessed by banks and their branches through NIFT's web portal. As of May 2009, 40 commercial banks and over 5,571 bank branches in 185 major cities and 20 data centers were availing the NIFT's services. The services include cheques clearing, reconciliation, return (unpaid) cheques processing, same day clearing (express-2 hours clearing service), intercity clearing and inter branch & interbank settlement. The role of main branches in settlement has been abolished and now NIFT collects the outward clearing directly from each and every branch and then arrange processing, presenting, returns processing, providing the net position to BSC and necessary scrolls, reports and advices for accounting entries to all commercial banks.

After the introduction of automated clearing system it became imperative that all instruments used in clearing are required to be standardized keeping in view the establishment of image based clearing system and high speed MICR Reader/Sorter

equipment introduced by NIFT. By June, 2009 most of the payment instruments of commercial banks and other financial institutions have been standardized and made machine readable; efforts are however, being made to standardize the Government departments' payment instruments.

During the year under review, about 74 million instruments were cleared/settled through NIFT clearing houses; almost the same number instruments were cleared through NIFT during the preceding year. A three year analysis can be seen in **Table 3.2** here as under:

S #	Office	2006-07	2007-08	2008-09
1	Bahawalpur	238,041	289,312	324,408
2	D.I.Khan	88,668	144,315	146,146
3	Faisalabad	93,343	2,787,335	2,914,505
4	Gujranwala	1,818,430	1,912,816	2,073,259
5	Hyderabad	49,484	1,671,053	1,785,746
6	Islamabad	4,108,620	4,565,596	5,458,270
7	Karachi	32,800,758	37,667,219	33,820,061
8	Lahore	18,156,103	15,187,908	15,799,479
9	Multan	1,232,908	1,722,821	1,612,719
10	Muzaffarabad	23,325	124,412	146,630
11	N.N.karachi	28,247	27,857	23,226
12	Peshawar	1,558,274	1,713,414	1,787,082
13	Quetta	921,115	1,059,237	1,206,771
14	Rawalpindi	3,218,694	2,116,794	3,602,345
15	Sialkot	818,753	889,633	889,791
16	Sukkur	1,192,901	1,698,470	2,014,132
Total		66,347,664	73,578,192	73,604,570

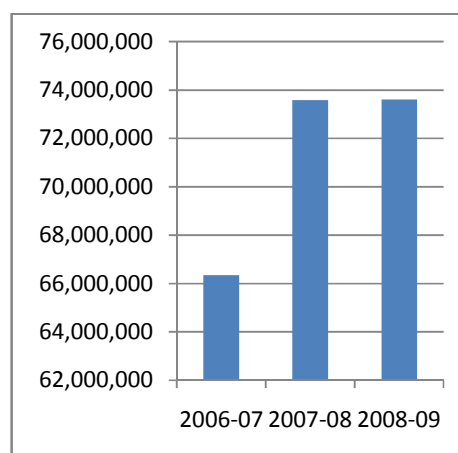
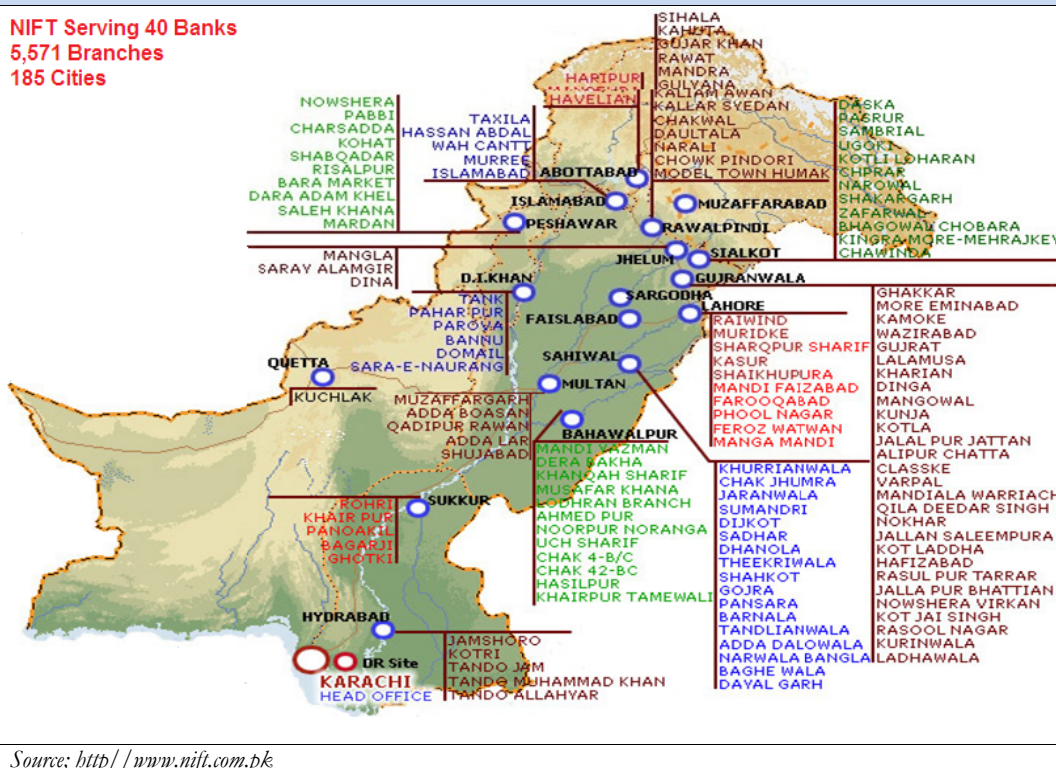


Figure 3.2 Nationwide Clearing Grid (NIFT)



3.3 Real Time Gross Settlement

The Real Time Gross Settlement System (RTGS) is a payment mechanism whereby Inter-bank and other time-critical payments are settled in real time, item by item across the participants' current accounts held with the BSC. Hence RTGS provides the infrastructure for Banks to settle their interbank and other time critical transactions in

real-time and without any delay thus eliminating their intra-day exposure in the inter-bank market and mitigating various types of risks like the credit risk, liquidity risk and systemic risk.

Pakistan's Real Time Gross Settlement System named as PRISM was inaugurated on 1st July 2008 by the honorable Prime Minister of Pakistan and since then has been successfully providing online real-time settlement services to the forty (40) participating institutions. All the commercial banks operating in Pakistan and three Development Finance Institutions (DFIs) are direct members of this system. The system offers the following main services to its participants:

- Real time settlement of cash and Government securities related payments along with multilateral net settlement of cheque clearing;
- Settlement of Government securities trade on Delivery versus Payment basis;
- In case sufficient cash is not available in a participant's account, the payment can be queued for settlement at a later time as and when the cash becomes available. The participant has the full capability of managing their own queues;
- Online position monitoring of cash and securities balances and
- A fully functioning help desk to facilitate the participants and addressing their complaints immediately.

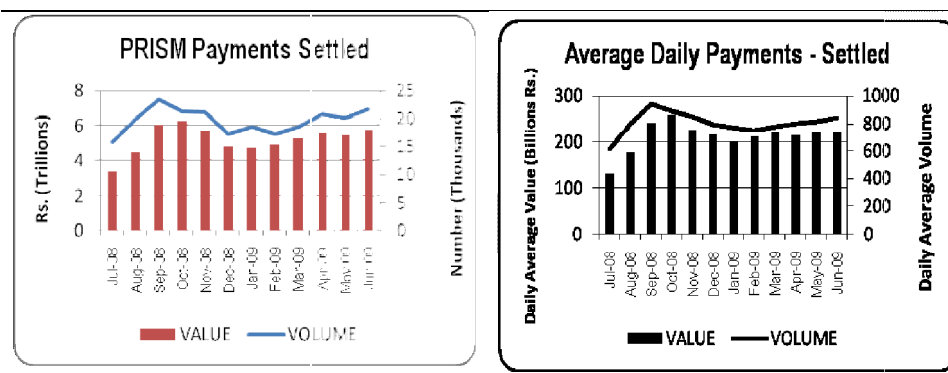
SBP also released comprehensive "Rules and Regulations" for PRISM operations which were prepared after extensive deliberations with all the participants and internal departments.

Being the operational arm of SBP, the BSC field offices play a very important role in the successful operations of PRISM. All operations relating to banking business in PRISM including interbank Current Accounts Transfers, Export Refinance, Cash including Prize Bonds and Special Saving Certificates and Government Securities Operations etc are made by BSC offices. Some of the notable achievements made during the year included the following:

- The overall launch of the system was done in phases to enable the participants to gradually adapt to the system with minimum inconvenience. Resultantly any support issues arising during the initial days of launch were effectively handled by the SBP/ and BSC RTGS Team.
- The SBP and BSC's RTGS Team fully facilitated the system participants in gradually moving from the cheque based payment mechanism to the new online real time system.
- BSC Karachi office ensures that the payments from indirect members to RTGS direct participants are promptly made so that their overall liquidity position is timely managed.
- After the introduction of RTGS, various operations (like Auction/ Open Market Operation (OMO) settlements and maturities thereof have been streamlined to facilitate the efficient use of liquidity through the new electronic system.
- The BSC officers along with RTGS Team also carefully monitor the payments being made through the system to detect and immediately reconcile any discrepancy in order to avoid inconvenience to the banks.

From July 2008 till June 2009, the PRISM settled payments of around Rs.59 trillion with a total volume of more than 220,000 payments. On an average the system settled around 750 daily payments valuing around Rs.200 billion.

Figure 3.3 PRISM Payment Statistics: (2008-09)



3.3.1 Benefits of RTGS

- Advanced risk management tools like the queue management facility via payment prioritization, Grid Lock resolution, Intra-day liquidity facility and real time information about participants' funds and securities positions and the fate of their payments (whether settled or queued) enables the banks to manage their liquidity positions efficiently. During the recent liquidity crisis, the PRISM provided a very robust platform to the banks for ensuring prudent and secure position management.
- RTGS System has also enhanced SBP's overall capability for monitoring the money market activities;
- With the core settlement engine in place, SBP is now working towards some new initiatives like extending the participants' settlement base and providing settlement services to corporate clients of the banks;
- Discontinuation of paper instruments by the PRISM direct participants for executing interbank funds and securities transactions and
- Initiation of online Securities Trading between RTGS direct participants.