

Payment and Settlement Systems

11.1 Payment and settlement system consists of a set of physical & electronic mechanisms for the transfer and settlement of financial obligations arising from the exchange of goods and services.

11.2 Functional Areas of Payment Systems: According to the 7A(e) of the Bangladesh Bank Order, 1972, one of the main functions of the Bangladesh Bank is - "to promote, regulate and ensure a secure and efficient payment system, including the issue of bank notes." In fulfilling this mandate and considering the importance of having a state-of-the-art payment and settlement system for Bangladesh, Payment Systems Department (PSD) of Bangladesh Bank (BB) has been working on payment systems strategy, automated cheque processing system, electronic funds transfer, national payment switch, mobile financial services, agent banking, e-commerce, m-commerce, legal & regulatory framework for electronic payment systems and payment systems oversight in order to implement a secured and efficient payment system in the country.

11.3 Traditional Payments Scenario: The traditional paper based payment system was semi-automated, time consuming and prone to many risks. The system was not at par with international best practices. It took t+2 or t+3 days to clear the cheques and other paper-based instruments within a clearing region. The inter-regional instruments required even much longer time to clear. Four payment and settlement systems had been in operation

in Bangladesh prior to 7 October 2010. They were: (a) Bangladesh Bank's Clearing Houses in eight clearing regions; (b) Sonali Bank's Clearing Houses in 31 cities where there are no BB branches; (c) the BB large value cheque settlement system; and (d) the BB Foreign Currency Clearing System in Dhaka. The instruments like cheques, bank drafts, pay orders, dividend & refund warrants, etc. were being cleared through the manual clearing houses. Apart from such non-cash payment instruments credit card, debit card and ATM transactions were becoming popular specially in the urban areas.

11.4 Payment Platforms Operating at Present: The move towards an electronic clearing system started with the live operation of Bangladesh Automated Cheque Processing System (BACPS) from 7 October 2010. Later, electronic funds transfer, e-commerce, mobile financial services and m-commerce joined the league to further the objectives of modernising the payment and settlement systems as set in the strategy. These payment platforms are briefly described in the following sections.

11.5 Bangladesh Automated Clearing House (BACH): BACH has two components- the Automated Cheque Processing System and the Electronic Funds Transfer. Both the systems operate in batch processing mode- transactions received from the banks during the day are processed at a pre-fixed time and settled through a single multilateral netting figure on each individual bank's respective

books maintained with the Bangladesh Bank. A state-of-the-art Data Centre (DC) and a Disaster Recovery Site (DRS) have been established comprising of most modern software and hardware for dealing with the operations of BACH. A Virtual Private Network (VPN) has been created between the participating commercial banks and Data Centre (DC) & Disaster Recovery Site (DRS) for communicating necessary information related to BACH. Digital Certificate has been formulated for the first time in Bangladesh for secured data communication.

11.6 Bangladesh Automated Cheque Processing Systems (BACPS): BACPS uses the Cheque Imaging and Truncation (CIT) technology for electronic clearing of the paper-based instruments, i.e. cheque, pay order, dividend & refund warrants, etc. The system supports both intra-regional and inter-regional clearing and is based on a centralised processing centre located in Dhaka and in designated clearing regions. The system conforms to the international best practices and also represents the most cost-effective solution for cheque processing throughout the country. Gradually other clearing regions joined the system. Moreover, all commercial banks branches under jurisdiction of 33 chest-branches of Sonali Bank which carry out the clearing functions for Bangladesh Bank are now connected to BACH data centre at Motijheel. Besides, some other areas like Savar EPZ, Tongi, Syedpur and Keranigonj have been connected to the BACH data centre, which is selected based on volume and importance of their transactions. Previously, there were no clearing houses in these areas.

11.7 At present around 1,600,000 regular and around 111,000 high value cheques & other instruments are cleared per month

through BACPS which is 95 percent. Total amount of regular value instruments cleared is approximately Taka 404 billion and it is approximately Taka 528 billion for high value instruments per month. The clearing cycle has been brought down to t+0 for high value cheques and t+1 for regular value cheques throughout the country. Chart 11.1 and Chart 11.2 show the trends of instruments cleared and associated amount of the regular and high value cheques respectively in FY13.

11.8 Bangladesh Electronic Funds Transfer Network (BEFTN): BEFTN has started its 'Live Operation' on 28 February 2011 with the objective to decrease paper-based payment methods and encourage paper-less payment methods for secured, faster & cost-effective transactions specially at the corporate levels. The Network started with credit and debit transactions from 15 September 2011. BEFTN facilitates the transmission of payments between the banks electronically, which makes it faster and efficient means of inter-bank clearing over the existing paper-based system i.e. BACPS. It is able to handle a wide variety of credit transfers such as payroll, foreign and domestic remittances, social security, company dividends, retirement, expense reimbursement, bill payments, corporate payments, Government tax payments, veterans payments, Government license fees and person to person payments as well as debit transfers such as mortgage payments, membership dues, loan payments, insurance premiums, utility bill payments, company cash concentration, Government tax payments, Government licenses and fees.

EFT is becoming popular among the various corporate bodies. Apart from that Cabinet Ministers' salaries, salary of the officials of Government agencies like Ministry of Finance,

Anti Corruption Commission and Salary of Government Primary School Teachers are being distributed through EFT at present.

11.9 Approximately 500,000 EFT credit transactions and 7,000 EFT debit transactions are processed per month with an increasing trend. The amount of EFT credit transactions is approximately Taka 26.8 billion per month while the amount of debit transactions is Taka 1.44 billion. Chart 11.3 and Chart 11.4 show the trends of EFT credit and debit entries and associated amount respectively in FY13.

11.10 **Mobile Financial Services:** The rapid growth of mobile phone users and countrywide coverage of mobile operator's network have made their delivery channel an important tool-of-the-trade for extending banking services to the unbanked/banked population, specially to expedite faster delivery of remittances across the country. From legal and regulatory perspective, only the bank-led model is allowed to operate in Bangladesh. Table 11.1 lists the approved Mobile Financial Services (in broad categories) while Table 11.2 shows the prevailing status of MFS in Bangladesh.

11.11 Bangladesh Bank has fixed the transaction limit for the account holders of mobile financial services at maximum Taka 10,000 daily and a total of Taka 25,000 on monthly basis. Bangladesh Post Office (BPO) introduced the service - 'post e-pay', in 5 September 2011 with 1968 branches which will gradually be launched in all the 9,886 branches of the post office in phases with the help of the mobile operators' countrywide network. Clients have to register themselves with the post office to get the service.

11.12 **e-commerce:** BB has issued directives for the banks for starting e-commerce activities. Permitted transactions

Chart 11.1

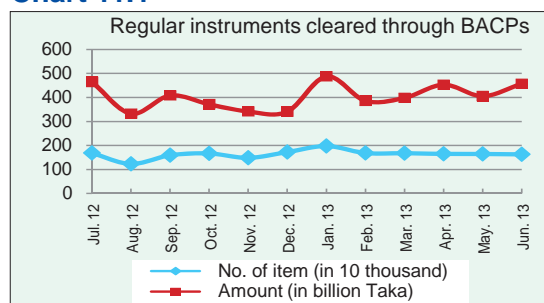
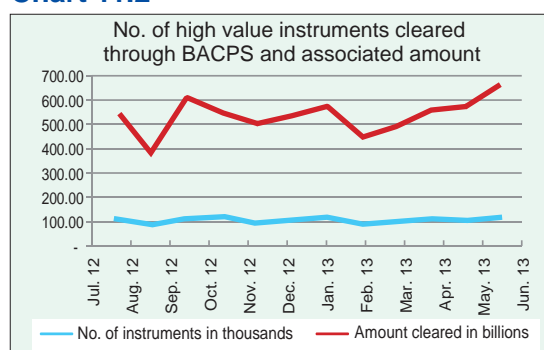


Chart 11.2



are - online payment of utility bills from client's accounts to recipient's accounts, transfer of money from one account of a client to another account in the same bank, payment/collection of money from/to buyer's bank account to seller's bank account for buy/sale of products and transaction via internet using credit card in local currency. From 11 March 2011, the following transactions have been given permission. Less than Taka 500,000 can be transferred from one client's account to another client's account within the same bank using internet/online facilities subject to the fact that it will fully comply with prevailing Money Laundering Prevention legislations and related circulars.

11.13 **Online Payment Gateway Service Providers (OPGSPs):** In view of the growing role of the services provided by the Online Payment Gateway Service Providers (OPGSPs), it has been decided to allow the Authorised Dealers (ADs) to offer the facility of

repatriation of remittances against small value service exports in non-physical form such as data entry/data process, off-shore IT service, business process outsourcing etc. Under this initiative, the exporters of the above services will be able to receive their overseas payments through the OPGSPs such as Paypal, Money Bookers, Best Payment Gateway and Virtual Pay online platforms.

11.14 New Payment Systems Initiatives:

A number of new end-user centric & real-time payment system initiatives has been taken in order to mitigate the ever growing demand for faster and efficient payment methods. Among the new initiatives, implementation of the National Payment Switch (NPS) has been started.

11.15 National Payment Switch (NPS):

The Bangladesh Bank has taken initiative to establish National Payment Switch (NPS) in order to facilitate inter-bank electronic payments originating from different delivery channels e.g. Automated Teller Machines (ATM), Point of Sales (POS), Internet, Mobile Applications, etc. The main objective of NPS is to create a common platform among the existing shared switches and to develop the required infrastructure. NPS will facilitate the expansion of the card based payment networks substantially and promote e-commerce throughout the country. Online payment of Government dues, using cards and account number information through internet will greatly be enhanced using NPS. NPSB has been launched as "soft go-live" on 27 December 2012 and now inter-bank ATM transactions among four banks are being routed through NPSB. Other 11 banks are also likely to join in NPSB.

11.16 Agent Banking: As a part of financial inclusion and offering limited banking service to both rural and urban unbanked

Table 11.1 Approved mobile financial services (in broad categories)

1. Disbursement of inward foreign remittances.
2. Cash in/out using mobile account through agents/bank branches/ ATMs/mobile operator's outlets.
3. Person to business payments - e.g. a. utility bill payments, b. merchant payments.
4. Business to person payments e.g. salary disbursement, dividend and refund warrant payments, vendor payments, etc.
5. Government to person payments e.g. elderly allowances. Freedom-fighter allowances, subsidies, etc.
6. Person to government payments e.g. tax, levy payments.
7. Person to person payments (one registered mobile account to another registered mobile account).
8. Other payments like microfinance, overdrawn facility, insurance premium, DPS, etc.

Table 11.2 MFS status*

No. of banks permitted	:	26
Started MFS operation	:	18
Registered customers	:	66.24 Lac
Agents	:	99,582
Transactions (billion Taka)	:	42.06
*as of June 2013		

Chart 11.3

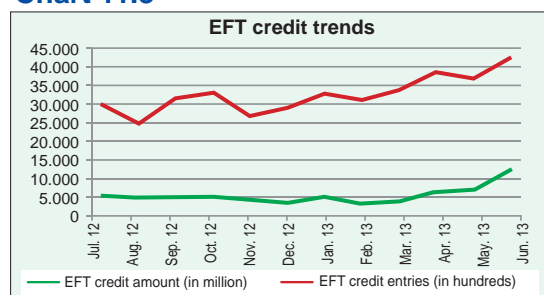
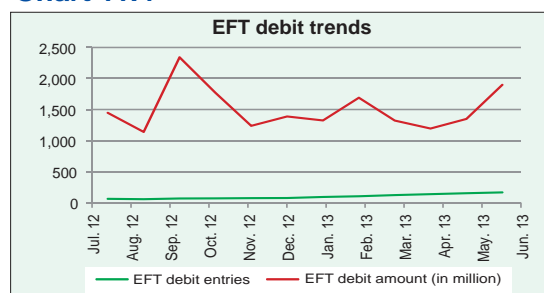


Chart 11.4



people, BB initiated Agent Banking. It will provide banking services to the bank customers through the engaged agents under a valid agency agreement, rather than a teller/cashier. "Agent" is the owner of an outlet who conducts banking transactions on behalf of the concerned bank.

11.17 Legal & Regulatory Framework: In order to give legal and regulatory support to growing methods for electronic transfer of funds, BB published a number of legal and regulatory document which is listed in Table 11.3.

11.18 Steps have also been taken to bring amendment in certain provision of the existing Negotiable Instruments Act, 1881 and Bankers Book of Evidence Act, 1891 in order to provide comprehensive legal backing to the operation of Electronic Clearing House. Bangladesh Bank in cooperation with World Bank (IFC-BICF) drafted Payment Systems Act; reviewed the existing BPSSR, 2009; drafted a new BPSSR, 2013 and Regulations for Electronic Funds Transfer, 2013 and is drafting rules for electronic payments. Lastly but far from least, BB also drafted a "Guidelines on Agent Banking for the Banks" on 2013.

11.19 Awareness Raising Campaign: Bangladesh Bank had taken a number of initiatives for raising awareness on the new electronic payment systems like automated cheque processing, electronic funds transfer and mobile financial services. BB organised seminars and workshops for sensitising officials from all commercial banks, Govt. offices and industry alliances. Besides, BB has been working to popularise electronic funds transfer network among the stakeholders like chamber of commerce's, stock exchanges, Bangladesh Security and Exchange Commission, Central Depository

Table 11.3 Existing legal and regulatory framework of payment and settlement systems of Bangladesh.

1. Bangladesh Payment and Settlement Systems Regulations (BPSSR), 2009 published on 27 April 2009.
2. 'Bangladesh Automated Cheque Processing Systems (BACPS) Operating Rules and Procedures' has been published on 11 January 2010.
3. 'Bangladesh Electronic Funds Transfer Network (BEFTN) Operating Rules' has been published on 11 August 2010.
4. 'Guidelines on Mobile Financial Services for banks' has been published on September 2011.

Bangladesh Limited, National Board of Revenue etc.

11.20 Automated cheque processing, electronic fund transfer and mobile financial services have already proved their potential by offering fast, secure and cost-effective financial services. Specially, paper-less EFT transactions are gaining increasing popularity among the corporate bodies, stock exchange members and industry alliances. Besides, the introduction of mobile financial services, m-commerce and e-commerce are significantly changing the financial services landscape of the country. When fully implemented, the NPS will increase end-user centric electronic payments and broaden the landscape for financial transactions in the country. These electronic modes of payments methods have already improved operational efficiency, increased transaction frequency and brought stability & flexibility at all spheres of the financial market. Implementation of other critical payment infrastructures as stated earlier will result in an effective and efficient 'National Payment and Settlement System' consistent with its neighbours and international standard.