

## Recent PSS Developments in Pakistan

### Pakistan Remittance Initiative

Over the years, a number of policy initiatives taken by the State Bank of Pakistan (SBP) focused on infusing necessary improvements to the cross border movement of funds and a smoothly functioning domestic leg in the payment chain. The intention was to encourage Pakistani expatriates to use banking channels for same day delivery of inward remittances to beneficiary accounts while providing protection to the remitter and the beneficiary from any loss or delay. For this purpose, Government of Pakistan, in collaboration with SBP, has taken the initiative in developing a desirable remittance system architecture designated as the Pakistan Remittance Initiative with the objective of putting in place the infrastructure and processes to ensure same day credit to beneficiaries' accounts from abroad. Furthermore, by bringing service standards and turnaround time to reasonable levels, this system discourages remitters from resorting to the use of informal channels. The system would facilitate banks, through RTGS, to make funds immediately available to participating beneficiary banks. For safe transfer of data, SBP is working on providing a secure file transfer facility to all the participating banks. This initiative has been taken to integrate all the banks into a payment network for smooth flow of remittances to beneficiaries across Pakistan on near real time basis.

### Electronic Payment and Refund System (EPARS)

The traditional non-compatibility of governmental procedures with evolving electronic settlement systems has been a major concern for individuals and businesses due to inherent inefficiencies, time consuming procedures, and incidences of errors and omissions. To leverage the available payment system platforms for the benefit of the government and the taxpayers, a conversion to electronic payments and refunds system is under development. Tax collection in Pakistan has so far been done manually by requiring taxpayers to deposit taxes due along with Challans (tax payment forms). In the recent past some efforts have been made to streamline the process by introducing online filings. However, taxes are still being collected over the bank counters.

Federal Board of Revenue Pakistan, under the Tax Administration Reform Program (TARP) has taken an initiative to establish e-payment and e-refund facility designated as Electronic Payment and Refund System

(EPARS). The system will facilitate taxpayers to make online tax payments by submitting requisite information along with bank account details on the electronic portal of FBR. This system will also enable FBR to credit refund amounts electronically to the accounts of taxpayers. Initially, the system will only take care of federal taxes, but it is designed to be able to incorporate collection of provincial taxes and refunds in the future. In order to materialize this concept, SBP is facilitating FBR in implementation of the EPARS by developing the necessary software interfaces that will enable access to RTGS while taking onboard financial institutions to determine related procedures, rights and responsibilities of parties concerned to ensure smooth transition. It is anticipated that by the end of the year the system would be able to facilitate collection of taxes by allowing banks to transfer taxes through the RTGS system from their clients' accounts to government accounts maintained at the SBP. The SBP will also facilitate FBR to refund taxes by using RTGS system. By facilitating FBR to implement this project, it will not only ensure smooth collection of taxes, but also will improve efficiency of the payment systems.

## Image Based Clearing and Cheque Truncation

SBP is working to allow the introduction of image based cheque clearing to the only clearing house of the country, National Institutional Facilitation Technologies (NIFT). The image based clearing will be a prelude to Cheque Truncation System which will expedite cheque processing especially in inter-city clearing in order to bring greater overall efficiency in settlements. To achieve this, payment instruments related to commercial banks have been standardized and made machine readable by using Magnetic Ink Character Recognition (MICR) Code Line allowing NIFT to process large number of paper based instruments efficiently and economically on daily basis.

## Settlement of NCCPL's Fund through PRISM System

The National Clearing Company of Pakistan Limited (NCCPL) provides centralized services of clearing and settlement of securities to all three stock exchanges of Pakistan through the National Clearing and Settlement System (NCSS). The SBP has allowed all directly participating banks of the RTGS to use SWIFT MT-103 format to manage transfer of funds between commercial banks who are settlers of accounts of NCCPL. This mechanism will facilitate efficient settlement of stock exchange transactions and allow management of funds on real time basis.

# Automated Cheque Processing System in Bangladesh

Globalization of trade and commerce along with rapid evolutions in transaction technologies are creating pressure for faster, safer, and efficient local and global transactions. Advancements of payment systems in developed countries have been challenging the domestic Payments Systems of developing ones like Bangladesh.

Considering the critical importance of having a modern payment and settlement system in Bangladesh, Bangladesh Bank (BB) has taken necessary initiatives for strengthening the country's overall payment system infrastructure. Bangladesh Automated Clearing House (BACH) – is the maiden step towards modernizing the National Payment System of Bangladesh.

Bangladesh Automated Clearing House (BACH), the first ever automated national payment systems platform, has two components - the Bangladesh Automated Cheque Processing Systems (BACPS) and the Bangladesh Electronic Funds Transfer Network (BEFTN). Both these systems operate in batch processing mode where transactions received from the banks during the day will be processed at a pre-fixed time and will be settled through a single multilateral netting figure on each individual bank's respective accounts maintained with BB. Bangladesh Automated Cheque Processing Systems (BACPS) has already started its operation after successful completion of Systems Integration Test, User Acceptance Tests and Live Day Simulations. Bangladesh Electronic Funds Transfer Network (BEFTN) will commence its operation soon

after necessary tests have been completed.

Bangladesh Automated Cheque Processing Systems (BACPS), as its name implies, is the automated cheque processing system which uses Cheque Imaging and Truncation (CIT) technology. A lot of interrelated steps have been taken to ensure the smooth and timely inauguration of BACPS, i.e. sensitizing the participants of the clearing house, standardizing the clearing instruments incorporating universal design and MICR line composition, formulating routing numbers, publishing required specifications and regulations to remove legal impediments for flawless operation of BACPS, etc.

The BACPS system supports both intra-regional and inter-regional clearings and is based on a centralized processing centre located in Dhaka and in designated clearing regions. The proposed processes and systems will conform to the international best practices and also will represent the most cost effective solution for cheque processing in Bangladesh.

Bangladesh Electronic Funds Transfer Network

(BEFTN) is the processing and delivery centre for the distribution and settlement of electronic debit and credit transactions among its participants. The BEFTN Network is envisaged as a system of participating banks connected with the EFT Operator via communication lines. This network will facilitate the transmission of payments between the banks electronically, which will make faster and efficient means of inter-bank clearing than the existing paper-based system. The Network will start with simple credit transactions and gradually progress to debit transactions. This will dramatically bring down the operational cost, reduce risk and will also increase the efficiency of the payments process.

Setting up an appropriate legal and regulatory framework is mandatory for modernizing National Payment and Settlement Systems to accommodate internationally accepted best practices and technological advancements. After due identification of the legal and regulatory pitfalls and avoiding ambiguities of the new technology driven payment systems, a new “Bangladesh Payment and Settlement System Regulation, 2009” have been approved by the Board of Directors of Bangladesh Bank. This regulation is the bedrock of the modernization effort of National Payment and Settlement Systems in Bangladesh. Other required Rules, Procedures and Specifications have already been published. Necessary steps have been taken to bring appropriate amendments in the Negotiable Instruments Act, 1881 to ‘fit in’ the new process of clearing.

A state of the art Central Data Center of BACH with necessary software and hardware is the heart of all payment systems operation. A live disaster recovery site is equipped for providing immediate service if central data center operation is disrupted.

Besides, the BB has taken appropriate initiatives to enhance public confidence and to confirm safety and integrity of the new payment systems. The BB is also keen to ensure common people’s access to the financial services and all forms of payment systems.

The Strategic Plan up to 2014 setup by the BB is a guiding compass for national payment systems developments. Accordingly, the BB has already taken initiatives for establishing a National Payment Switch for card based payments and is giving approval to the banks for e-Commerce operations. Further, to ease the problems in the remittance delivery system, approval has been given to establish bank-led mobile banking services in the country.

These initiatives of the BB to modernize country’s payment and settlement system will significantly change the financial landscape of Bangladesh. The convergence of paper and electronic modes of payments, improvement in operational efficiency and flexibility through adoption of IT intensive processes will result in a sound National Payment and Settlement System consistent with its neighbors and international standards.

## Memories of 7th SPC Meeting



# Electronic Funds Transfer and Clearing System (EFTCS) in Bhutan

The Royal Monetary Authority of Bhutan (RMA) with the technical assistance from the Reserve Bank of India (RBI) has implemented the Electronic Funds Transfer and Clearing System (EFTCS) Project for strengthening the Payment Systems in Bhutan. The project is aimed at providing fast, secure and efficient payment services to the general public.

The EFTCS Project consisting of National Electronic Clearing System (NECS Credit), National Electronic Clearing System (NECS Debit) and the National Electronic Funds Transfer System (NEFT) was jointly inaugurated by His Excellency Lyonpo Wangdi Norbu, Hon'ble Finance Minister and Chairman, RMA and by Dr. D. Subbarao, Hon'ble Governor, Reserve Bank of India on June 11, 2010.

The EFTCS Project facilitates the customers to transfer the funds amongst the commercial banks. The customers can now easily transfer the funds from an account maintained with 'Bank A' to another account maintained with 'Bank B', 'Bank C' or 'Bank D', which was not possible before launching of the EFTCS Project.

Under the Electronic Funds Transfer and Clearing System, the transfer of money/funds from one account to another account takes place electronically. Necessary legal framework such as the Act, Rules and Regulations, Procedural Guidelines etc. has been put in place to make the Payment System very safe and efficient. With the introduction of this electronic mode of transfer of funds, the inconveniences and delays associated with cash and other paper based transfer of funds such as cheques and drafts shall be avoided.

## National Electronic Clearing System (Credit)

Under NECS Credit, the accounts of individuals maintained with commercial banks shall be credited with amounts receivable by them from the company/organization on account of dividends, salaries, pensions

etc. In other words, NECS Credit is used for affording credit to a large number of beneficiaries by raising a single debit to an account of the concerned company/organization.

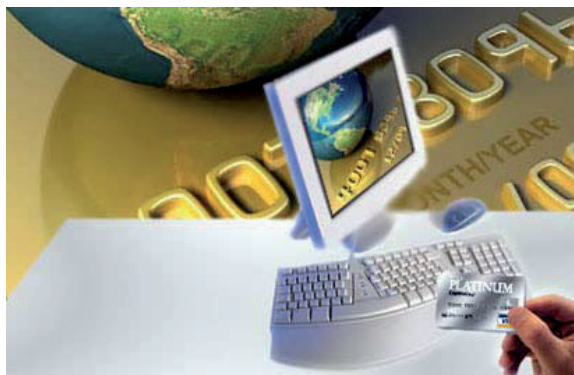
Types of transactions planned to be covered during the initial stage of implementation of NECS Credit include payments of salaries and the dividends. Further

to facilitating the payment of salaries, NECS Credit will be used for remitting monthly provident fund contributions, group insurance scheme, salary tax, health contributions, loan repayments etc. for faster deposit of these remittances. In the near future, additional transactions under NECS Credit such as payments of leave travel concession, pension payments, disbursement of

bonus, income tax refund by government, refund of initial public offers for subscription of shares etc. shall also be included.

## National Electronic Clearing System (Debit)

Under NECS Debit, the account of an institution shall be credited by debiting money from the accounts of many customers. In other words, NECS Debit is used for raising multiple debits from a number of accounts of customers for crediting the account of a particular institution. It is a scheme under which an account holder with a bank can authorize the user institution to recover an amount by raising a debit in his account. The user institution has to collect an authorization from the customer for raising such debit. Such authorization has to be endorsed by the bank maintaining the account of the customer.



Types of transactions planned to be covered during the initial stage of implementation of NECS Debit include payment of utility bills (telephone bill, electricity bill and the water bill). In the near future, additional transactions under NECS Debit such as subscription to initial public offers for purchase of shares of companies, loan repayments, payment of insurance premiums, monthly rental charges for cable television, fees for school/college/training institutions etc. shall also be included.

## National Electronic Funds Transfer

The National Electronic Funds Transfer (NEFT) system is a nationwide funds transfer system to facilitate transfer of funds from one bank branch to any other bank branch. NEFT facilitates transfer of funds from one individual to other individual, one institution to other institution, one institution to one individual. In other words, under NEFT funds can be transferred only between two parties.

## Benefits of the Payment Systems.

Following are some of the benefits of using the EFTCS by individuals (customers), user institutions and the banks:

- ◆ Inconveniences and delays associated with cash and other paper based transfer of funds such as cheques and drafts shall be avoided.

- ◆ Transfer of funds electronically from one branch of a bank to any branch of the other participating commercial banks in Bhutan shall be possible.
- ◆ Receipts/payments of funds shall be faster.
- ◆ Administrative cost associated with the conventional methods of payments will be reduced to a great extent.
- ◆ Reconciliation of accounts shall be immediate.
- ◆ Very safe and secured methods of Payments.
- ◆ Improve the efficiency and provide better services to the general public.

During the initial stage, the project will be implemented in the capital city Thimphu. Thereafter, it is expected to be extended to rest of the country.

During these first few months of the implementation of the Project, concentration is made in the implementation of NECS Credit. Since its inauguration in June 2010, the RMA has been joined by all other financial institutions as well as some of the key Government Ministries in transferring funds through the NECS Credit. Efforts are being made to include additional user institutions under NECS Credit every month. Implementation of NECS Debit and the NEFT on a mass scale shall also be carried out within these few months itself.

# Recent PSS Developments in India

## 1. Electronic Payments – remitter details

The volumes handled by the electronic payment systems have increased considerably. In order that the beneficiaries have the requisite remitter information in their passbook / statement of account the originating banks have been directed in October 2010 to capture the relevant information in messages / data files and provide remitter details in pass book / pass sheet / account statement for credits received by customers through NEFT / NECS / ECS/RTGS.

## 2. Directive on Settlement and Default Handling Procedures in Multilateral and Deferred Net Settlement Systems under the Payment and Settlement Systems Act, 2007

Reserve Bank of India issued a directive on “Settlement

and Default Handling Procedures in Multilateral and Deferred Net Settlement Systems under the Payment and Settlement Systems Act, 2007” for compliance by all payment system providers and system participants covering all multilateral and deferred net settlement systems authorised.

The directive apart from clarifying the finality of settlement aspects also brings transparency and uniformity in default handling procedures across all the multilateral and deferred net settlement systems approved by the Reserve Bank of India. Through this directive the earlier procedure of partial unwind followed, in the event of any participant not in a position to fulfill its obligation at the time of settlement, has been amended and a procedure of full unwind has been prescribed in situations where the settlement is non-guaranteed in nature. As part of this procedure, the settlement bank will request the Clearing House (with appropriate consent from the President of the Clearing House) to recalculate the settlement. As part of the process of recalculating the settlement, the Clearing House shall 'exclude' all the transactions (both receivables and payables) of the defaulting member bank as if the said bank did not participate in clearing.

In case the settlement is guaranteed, the default handling procedure shall involve utilising the margin money, invoking the line of credit extended to the defaulting bank, activating the loss sharing mechanism or any other guaranteed mechanism. Nuances of operationalising the default handling procedure shall be as per the procedural guidelines of the individual multilateral and deferred net settlement systems.

In case of default and consequent recalculation of settlement, if insolvency arises during the interregnum, the immediately preceding settlement reached shall be treated as final and binding.

### **3. Dispute Resolution Mechanism under the Payment and Settlement Systems Act, 2007**

The enactment of the Payment and Settlement Systems Act, 2007 (PSS Act) has provided the legal backing to the Reserve Bank for putting in place a formal dispute resolution framework. Accordingly the Reserve Bank has drawn a Dispute Resolution Mechanism for adherence by system providers and system participants of all Payment Systems authorised to operate in the country. The scope of the Dispute Resolution Mechanism will generally be limited to interpretation, scrutiny and resolution of disputes within the ambit of rules, regulations, operational and procedural guidelines relating to the payment products, various instructions issued by the system providers, instructions and directions issued by RBI, etc., from time to time.

The use of the mechanism will not be resorted to deal with aspects relating to acts of system participants (or providers) that are prima-facie fraudulent or are internal to their operations or outside the payment and settlement system infrastructure.

### **4. Cross Border Money Transfer – exclusivity clause:**

A number of overseas entities have been authorized by the Reserve Bank for providing cross border money transfer (in-bound). Some of them have been insisting on "exclusivity" arrangements with their agents in India for rendering such services in India. These entities also extend the scope of these exclusivity arrangements to the sub-agents, through their agents. As a result, the Indian entities appointed as agents/sub-agents are not permitted to act as agents/sub-agents of any other entities engaged in the same activity. The desirability of such arrangement in India was examined and it was concluded that "exclusivity" arrangements limit



competition, distort pricing and thereby act as a deterrent to a payment system from achieving the desired goal of efficiency, affordability and being ubiquitous. In view of this it has been decided that:-

- i. Overseas entities, authorized by the Reserve Bank of India, under the Payment and Settlement Systems Act, 2007, to operate in-bound cross border money transfer services through agents appointed in India, shall not enter into any arrangement with any entity

regulated by the Reserve Bank, appointed as agent, incorporating any kind of “exclusivity” clause in the contracts which restrict or prohibit the agent from entering into agency relationship with other overseas entities operating in-bound cross border money transfer services.

- ii. The agents appointed by the overseas entities shall also not enter into any arrangement with any entity regulated by the Reserve Bank, to function as sub-agents, incorporating any kind of “exclusivity” clause in the contracts.
- iii. The agents appointed by the overseas entities can enter into agreements with “exclusivity” clause with entities not regulated by Reserve Bank, only through mutual consent.

#### **5. Standardisation and Enhancement of Security Features in Cheque Forms,**

#### **CTS-2010 Standards:**

The developments in cheque clearing and introduction of Cheque truncation System (CTS) necessitated prescription of certain minimum security features in cheques. The issue of standards and security features was deliberated with Indian Banks Association and National Payments Corporation of India. A Working Group was also set up by the Reserve Bank of India. Based on the deliberations with the various stakeholders and the recommendation of the Working Group CTS-2010 Standards were issued in February 2010. The benchmark prescribes mandatory and optional security features on cheque forms like quality of security paper, specified watermark, bank’s logo in invisible ink and void pantograph along with other optional features. The prohibition of alteration/corrections on cheque forms other than for date validation presented under CTS clearing would also be implemented along with the roll-out of CTS at Chennai.

## **Sri Lanka Interbank Payment System moves to T+0 clearing with Multiple Settlements in the RTGS System**

The features in retail payment systems are changing rapidly due to alternate facilities being evolved for payment message transmissions through electronic channels and faster clearing and settlement cycles, resulting from advancements in information and communication technology. In line with these changes, in order to ensure financial system stability of the country, it is required to strengthen the legal and regulatory framework governing the electronic transactions as they are now transmitted and settled on a real time basis. These developments and reforms facilitate to improve the efficiency, safety, reliability and integrity of PSS and thereby foster the overall stability of the financial system.

One of the main retail payment systems in Sri Lanka, namely, the Sri Lanka Interbank Payment System (SLIPS), was upgraded in September, 2010 to provide T+0 settlement facility for interbank fund transfers. This enables the customers to receive funds on the same day through SLIPS. The settlement of the net clearing balances of participating institutions (PIs) in the RTGS system is now effected twice a day at 8.30 am and 3.00 pm on each business day. Before this upgrade, the Licensed Commercial Banks (LCBs) were required to forward the payment instructions to Lanka Clear Pvt. Ltd (LCPL), the institution that operates the

national cheque clearing system and the SLIP system, in diskettes or Compact Disks, before 3.30 p.m. With the new implementation, the SLIPS window is now open until 6.00 pm for acceptance of transactions for next day settlement and between 8.00 am to 12.00 am to facilitate same day settlement. After the clearing, the LCPL transmits the net settlement details to Central Bank of Sri Lanka (CBSL) via the communication line enabling the CBSL to credit and debit net settlements on the specific times through RTGS.

SLIPS which was an offline interbank funds transfer system up to September, 2010 is used for handling small

value, high volume retail payments. SLIPS operations were initiated in 1994 by the Sri Lanka Automated Clearing House (SLACH), which functioned under the Data Processing Department of CBSL. From year 2002 onwards, LCPL has been entrusted with the powers to act as an agent of CBSL to perform the clearing operations with regard to cheques as well as SLIPS. Direct participation in SLIPS is limited to the 22 LCBs operating in Sri Lanka and the CBSL. Two main types of retail transactions handled by SLIPS are credit transfers that involve pushing funds from transferor's account to transferee's account and direct debit transfers which entail pulling funds from the transferor's account on the instructions given by the transferee, subject to prior authorization granted by the transferor. Currently credit transfers effected through SLIPS mainly contain salary and pension payments and dividends payments, while direct debit transfers are commonly used for utility bill payments. SLIPS provides the facility for the PIs to carry out future dated transactions up to 14 days.

The significant new features in the new SLIPS application are -

- i. online connectivity to the participants through Virtual Private Network for transmitting the SLIP file to LCPL,
- ii. capability to have multiple settlements during a day,
- iii. multiple outward SLIPS files can be sent to LCPL by a participating bank during a session,
- iv. increased system capacity of handling up to 600,000 transactions during a session,
- v. enhanced disaster recovery capabilities,
- vi. same day clearing for transactions received before 12:00 noon on any business day and

vii. online submission and digital signing of all outward and inward SLIPS files.

These features provide the system with highest level of security and efficiency, enhancing customer confidence. In addition, the system provides paperless financial transactions with no hard copies contributing to the environmental protection activities of the country.

With the upgraded features of the SLIPS, the commercial banks in the country will be benefitted in terms of increased revenue generating capabilities, operational efficiencies and cost savings. Meanwhile, customers will also have many advantages since the system would facilitate value added services, high degree of security, operational reliability and more importantly reduced cost and time of writing cheques and queuing up at bank counters for payments. Further, corporate customers such as utility companies and insurance companies will be able to streamline their fund collections efficiently which will result in enhanced performance and stronger cash flow. Ultimately, upgrading of the SLIPS to an online secure interbank fund transfer system for retail payments with the latest product features will promote economic activities through high speed fund transfers to the needy sectors and enhanced competitiveness in the market for financial services. The CBSL will benefit as T+0 settlement will reduce the settlement risk, the banks will be required to manage their liquidity more prudently which will strengthen financial discipline among the bankers and costs of printing currency notes, minting coins, destroying unserviceable notes, cash transportation and insurance premium etc will be reduced.

Finally, the advancement of the SLIPS retail payment system to T+0 settlement with several innovative features will mark a significant milestone in Sri Lanka's payment system history, as it will largely facilitate the move of the retail payments, towards safer, more efficient and cost effective electronic fund transfers, contributing towards prosperity of the country.