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Payments and Settlements – Evolution of Sri Lanka’s Payment System

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Background

The payment system, which consists of instruments for effecting payments and settlements of transactions, together with necessary infrastructure and legal and regulatory framework for the same is the backbone of a country’s monetary and financial system. A sound, efficient and reliable payment system is a sine qua non for financial system stability without which the central bank of a country could not conduct its monetary policy to achieve its objective of price stability. The Central Bank of Sri Lanka (CBSL) has well recognised the importance of the payment and settlement system and has taken initiatives and leadership in developing and modernising it to be in line with the international best practices and standards.

At the time of establishing the Central Bank, the widely used mode of payment was ‘cash’ comprising currency notes and coins. Over the last 60 years, the relative importance of cash as a mode of payment has declined with the development of the financial system and the introduction of innovative instruments for effecting payments and settling transactions. This is indicated by the decline in currency notes and coins in circulation in the broadly defined money supply from 33 per cent in 1950 to 12 per cent by 2009, a result of gradual movement towards non-cash payment modes such as cheques, credit and debit cards, and internet and other electronic payments. The introduction of such non-cash payment systems however required the development of necessary infrastructure including an efficient interbank payment and settlement system.

‘Cheque’ as an Instrument of Payment and Evolution of the Clearing Process

Cheques drawn against deposits maintained at banks gained popularity as a non cash payment instrument with the development of banking systems of the country, though there are records of use of cheques even as far back as 1820. However, the first mentioning of a clearing process, an essential requirement for effecting payments by cheques in Sri Lanka has been in 1885 by the Colombo branches of the Madras Bank and the Imperial Bank of India. Over the last 60 years, cheques have gained their importance as a mode of payment as indicated by the increase in the size of daily clearing. For example, the value of cheques cleared through the clearing house which stood at around Rs. 31.5 million per day in 1951 has increased to Rs. 370 million per day by 1980 and to around Rs. 21.8 billion per day at end June 2010.

Manual Clearing

As per Section 98(1) of the Monetary Law Act, the Central Bank is required to provide clearing facilities for transactions among commercial banks operating in Sri Lanka. On 29 August 1950, after the establishment of the Central Bank, the Bank took over the clearing functions from the Colombo branch of the Imperial Bank of India, which until then functioned as the clearing bank. The clearing mechanism adopted at that time required all banks to meet at the Central Bank to physically exchange the cheques received from other banks. The banks met at the Central Bank in the morning for the main clearing (to exchange the cheques presented to one bank by a customer for collection of funds from another bank) and for the settlement clearing (to return the invalid cheques back to the presenting bank) at noon each day and computed manually the net clearing balances. The Central Bank settled the net clearing balances by manually passing entries in the accounts of banks held in its books and informed the net account balances to banks by 8.00 a.m. the next business day. This process of clearing created many errors as well as delays as balancing and accounting functions were handled manually.

Establishment of the Sri Lanka Automated Clearing House

With the increasing volumes of cheques for daily clearance, it became imperative that the clearing process be automated. Accordingly, the Sri Lanka Automated Cheque Clearing House (SLACH) was established on 02 March 1988 as a sub-division of the then Data Processing Department of the Bank. The automation required to modify the cheque leaf to include a Magnetic Ink Character Recognition (MICR) band to encode in machine readable form all required information for clearing such as paying bank, cheque number, value, etc. The cheques were sorted electronically according to the recipient bank order through reader/sorter machines. This process considerably reduced the number of days required for realisation of a cheque. However, as the physical cheque still had to travel from the collecting bank to the SLACH, it was not possible to have a uniform realisation time island-wide. In order to reduce the travel time of the cheque, the CBSL introduced

regional clearings at its 3 regional offices located at Matara, Anuradhapura and Matale which eliminated the need for cheques collected in these regions to come to Colombo for the central clearing. In addition, some banks had informal regional clearing arrangements to clear cheques collected in certain areas.

Sri Lanka Interbank Payment System (SLIPS)

The establishment of the SLACH was followed by, and facilitated the introduction of an electronic funds transfer (EFT) system for inter-bank transactions named as the Sri Lanka Interbank Payment System (SLIPS) in August 1993. This enabled the movement of funds from one account to another or to a number of accounts without a piece of paper such as a cheque, pay order or voucher to authorise or prove the transfer, electronically by forwarding the details with adequate data security controls, in a computer diskette. Initially, this system was mainly used for credit payments only, but was extended to accommodate debit payments in February 1995.

The SLIP System reduced the use of cheques and is currently extensively used for small value bulk transactions such as the payment of salaries, utility bills, EPF benefits, etc. Transactions cleared through SLIPS per day has grown to an average of over 40,000 transactions valued at Rs. 1.4 billion in 2010 with a peak level of 380,000 transactions a day during the year. With the implementation of an enhancement to the system on 21 September 2010, transactions can now be cleared on T+0 basis (the payment will be credited to the recipients' account on the same day). It has also enabled the introduction of multiple settlements a day further reducing the settlement risk.

Establishment of LankaClear (Pvt) Ltd.

The Central Bank observed that a number of countries had already implemented independent clearing houses which were found to be more efficient and cost effective. Accordingly, the cheque clearing function was divested to a new company, LankaClear (Pvt) Ltd. (LCPL) incorporated under the Companies Act on 08 February 2002. The participants in the clearing process; the commercial banks and the CBSL became shareholders of the company. The CBSL also decided to be the major individual shareholder by obtaining 19.6 per cent of the issued shares. Since its establishment, LCPL has been operated successfully without any major interruptions and recorded profit continuously. In parallel to this development, a US dollar clearing system was also introduced on 01 October 2002 by LCPL to reduce dollar cheque clearing time.

Implementation of Cheque Imaging and Truncation System

In 2005, Central Bank together with LCPL commenced planning to implement a Cheque Imaging and Truncation System (CITS) to further reduce the cheques realisation time which was in the range of 1 to 10 days depending on the geographical location of the receiving and paying banks.

With this system, the physical cheque is truncated at the collecting bank/branch and only the image will travel to LCPL for sorting. To facilitate this process, LCPL established 10 regional centres island-wide for the bank/branches to hand over the cheques for image capturing until such time the branches developed their own capacities. The cheque had to be further standardised in order to capture legible images as verification of signatures will be done through the image and not through the physical cheque with the implementation of the system. The 10 regional centres transferred the images through dedicated communication lines to LCPL where the images were sorted and directed to the paying bank. The main advantage of embarking on the CITS was to clear cheques island-wide without any geographical boundaries, on T+1 (where T is the day of deposit of the cheque and 1 is the following business day). The CITS System was successfully implemented on the 11 May 2006.

Since the implementation of CITS, all commercial banks have upgraded their technology and almost all bank/branches are now linked to their head office systems through core-banking packages. This has reduced significantly the need to continue with the LCPL's regional offices for collection and imaging of cheques. Accordingly, the regional offices were closed with effect from 01 July 2010 and currently, all banks submit the images to LCPL directly.

Introduction of Payment Cards

Payment card is a payment method that has revolutionised the way the consumers and service providers transact. The cards may come in the form of special purpose cards, credit cards or debit cards. Although local credit cards have been in existence since early 1980s, the first international credit card related products were introduced by Sampath Bank and Bank of Ceylon in 1989. The first debit card 'Maestro Debit' issued by the Sampath Bank in 1997 was the first in South Asia which provided access to international ATMs and transactions at merchant level. Subsequently, the VISA Electron Debit card was issued by Bank of Ceylon. Currently, there are over 24,000 Point of Sale (POS) machines installed at merchant outlets to be used for card payments. To minimise frauds when using the cards for payment purposes, the CHIP enabled cards were introduced in Sri Lanka in 2008 by some banks. The growth of use of credit cards have been slow due to high interest charges that are levied for late payments and other charges such as joining and annual fees levied for different types of cards. Currently there are over 830,000 credit cards issued to customers by banks and the average number of transactions using credit cards is around 1.4 million valued at over Rs. 5.0 billion a month. Similarly, there are over 6.0 million debit cards (including ATM cards) that are used for local as well as international transactions.

In 2009, the payment card industry was brought under the regulation of the CBSL by the Service providers of Payment Cards Regulation, No. 1 of 2009 which became effective from 31 July 2009. The Regulation requires all Service Providers of payment cards to register with the

CBSL. Currently, 17 financial institutions have registered with the CBSL under the Regulation. Further, the CBSL shall be responsible for regulating and monitoring all service providers of payment cards registered under the Regulation. In addition, to ensure safe, secure and efficient use and operation of credit cards, the Credit Card operational guidelines were issued to all credit card issuers on 01 March 2010.

Phone/Mobile/Tele-banking/Internet Banking

Electronic payment methods using devices such as phone, mobile or Internet are increasing in popularity with the adoption of modern technology by the general customer. These methods of payments have been in operation for the past 4 – 5 years but have recorded a significant growth in recent times. The Central Bank, as the regulator, preparing for the growth in electronic payments, is in the process of issuing guidelines on mobile payments and internet banking which are expected to be released early 2011.

Implementation of the Real Time Gross Settlement System

Cash payments have finality in settlement and are generally accepted as a medium of exchange. However, non-cash payment systems where the transaction is between two banks impose a settlement risk for the Central Bank as the settlement of each bank's obligation towards another are made on a net-basis at the end of the day. Each bank maintains an account with the CBSL and such obligations are settled through the funds available in these accounts. However, as the settlement happened at the end of the day, the CBSL was faced with the risk of not being able to settle the balances even if one bank was short of funds. Accordingly, there is a risk that the manual end of day settlement of banks' liabilities would lead to instability of the entire financial system. Considering this risk as well as to maintain the system more efficiently, the CBSL introduced a Real Time Gross Settlement System (RTGS) on 08 September 2003 to facilitate settlement of high value and time critical transactions on a real time basis. This implementation enabled the country's banking system to effect interbank payments and complete settlements among themselves on a real time basis, settling through the accounts maintained at the CBSL, eliminating undue settlement risk that was prevalent with manual end of day settlement system which exposed the CBSL to credit, liquidity and insolvency risks of the commercial banks. Sri Lanka was the first country in South Asia to introduce an RTGS System.

RTGS system is considered as a systemically important payment system which requires adherence to international standard such as the 10 core principles put forward by the Bank for International Settlement (BIS) for operation of such systems. Currently the RTGS is operated with over 99.6 per cent system availability and in full compliance with the BIS standards.

With the enactment of the Payment and Settlement Systems Act in 2005, the Central Bank was empowered to be the authority responsible for the national payment system. Implementation of the RTGS for high value payments has brought about financial discipline among all users as adequate reserves have to be maintained in the respective bank accounts for real time settlement. The Central Bank provides intraday liquidity (ILF) at no cost to the participants to bridge the shortage of funds during the day provided that the banks returned the dues before the close of the system. The RTGS transactions are made through SWIFT (Society for Worldwide Interbank Financial Telecommunication) which ensures high security of transactions while on transmission. Currently 96.2 per cent of the value of all electronic transactions (excluding cheques) are routed through RTGS ensuring minimum settlement risk. The rest of the transactions are made using Internet and phone banking, SLIPS and other card based systems.

Implementation of the Scripless Securities Settlement System

With an objective of further developing the government securities market, the Scripless Securities Settlement System (SSSS) together with the Central Depository System (CDS) named 'LankaSecure' was implemented on 02 February 2004. It provided for the dematerialisation of government Treasury bills and bonds that were in scrip form to scripless or electronic form, new issues in scripless form and maintaining securities accounts of customers and movement of securities among all accounts. The LankaSecure is linked to RTGS to form LankaSettle, an integrated system for real time settlement of transactions including securities transactions. Under this system, all settlements relating to securities trading take place on DvP (Delivery Vs Payment) basis, completely eliminating the risk of delivery of securities without receiving the payment relating to the trade. The CDS records movements of securities or changes of their legal ownership on a real time basis. LankaSecure has greatly reduced the cost, manpower needs involved in issuance of government securities and provided enhanced security to investors. This implementation has completely eliminated the hassle of physically moving the scrip securities from one to another and expanded the securities trading in the secondary market as the system provides for the transfer of securities among customer accounts instantly and settlement arising from the trading on DvP basis on real time.

Legal & Regulatory Framework

The Payment and Settlement Systems Act No.28 of 2005 (PSSA) provides among other things, a comprehensive legislation to govern payment, clearing and settlement systems and provides the CBSL with oversight and regulatory powers over payment and settlement systems. The Act also provides for electronic presentment of cheques and authority for the CBSL to maintain securities accounts for participants as well as customers which were required for the implementation of the CIT and SSS systems respectively.

The National Payments Council (NPC), the highest decision making body with regard to payment systems comprising of representatives from all stakeholders in the payments area was set up in 2007. The NPC is chaired by a Deputy Governor of the CBSL and represented by members from state, local private and foreign banks, LCPL, Stock Exchange and Ministry of Finance. Considering the responsibilities of developing the payment and settlement infrastructure, NPC in collaboration with all stakeholders, have prepared a road map defining milestones to be achieved in the country's payment systems with target dates for completion.

As the regulator of PSS, the CBSL ensures that all participating institutions of systemically important payment systems have established proper business continuity plans and disaster recovery sites to ensure continuity of operations. Furthermore, the CBSL has commenced on-site as well as off-site surveillance of all payment system related activities of the stakeholders.

Establishment of Financial Sector Certificate Authority

With the popularisation of card based payments, internet based payments and other means of electronic payments, the need to establish proper information security for such transactions became evident. The 'LankaSign', the Certificate Authority for the financial sector was established on 22 May 2009 by LCPL which became the first Certificate Service Provider under the Electronic Transactions Act No. 19 of 2006. The use of Digital Certificates issued by LankaSign by financial institutions would ensure greater authenticity, integrity and reliability to electronic payment transactions. The Digital Certificates issued by LankaSign are currently used in the SLIPS enhancement for transmitting the SLIPS files securely to LCPL by the participating banks.

Cross Border Transactions

Payment systems relating to cross border transactions are very limited in Sri Lanka. However, the Asian Clearing Union (ACU) of which Sri Lanka is a founder member was established in 1974 with the objective of facilitating international transactions on a multilateral basis among member countries to promote monetary cooperation among them and thereby to promote trade and economic activities among member countries. The other members of the ACU are Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal and Pakistan. The ACU Secretariat is located in Tehran, Iran. Under this payment mechanism, payments relating to trade among member countries made through Letters of Credit are routed through the respective central banks/ monetary authorities. The transacting currencies of the system are the US dollar and the Euro. The transactions among members are settled by the respective central banks on a net basis at the end of the two month period. Another advantage of this mechanism is the availability of a swap facility which provides temporary credit to any member country in distress to settle the net

positions. Significant changes are required to the ACU clearing mechanism to meet modern day requirements as the current semi- manual system is time consuming and involves a lot of paper work.

SWIFT, the Society for Worldwide Inter-bank Financial Telecommunication is used for exchange of cross border payments between banks and other financial institutions. However, SWIFT is not considered as a payment system as it does not perform any form of clearing or settlement. SWIFT provides a secure way of transmitting messages from one place to another electronically. Although the RTGS is restricted to local payments, the transport mechanism used in RTGS is SWIFT to ensure security of high value payments.

In addition to the financial institutions, financial services and communications companies such as Western Union and Money Gram are actively involved in person-to-person money transfers in Sri Lanka. These companies have large agent networks globally, which facilitate money transfers from any part of the world. In Sri Lanka, the services of both these providers are used to receive inward remittances.

Regional Cooperation and Knowledge Sharing

The CBSL assumed leadership in establishing the SAARC Payments Council in 2008 with a view to strengthen the payment systems of the region by guiding the member countries to modernise their payment systems and to bring their payment systems to standards compatible with international standards and best practices. The SAARC Payments Council (SPC) is currently chaired by a Deputy Governor of the CBSL and the secretariat is located at the CBSL. The SPC meets every 6 months in a member country on a rotational basis.

The CBSL, since the implementation of the RTGS prepares a ‘Payments Bulletin’, which is issued on a quarterly basis. This provides a comprehensive coverage of all payment systems/ mechanisms available in the country for domestic as well as international payments, and related statistics. The bulletin could be accessed through the Central Bank’s website ‘www.cbsl.gov.lk.’

Future Trends

It is envisaged that there will be a tremendous demand for further modernisation of payment systems in the near future. The CBSL identifying the need to cater to the new payment instruments and payment channels that would evolve have already initiated the establishment of legal and regulatory systems for anticipated growth areas. Furthermore, to accommodate the growth in retail payments, LCPL with the CBSL have already initiated to set up a common ATM switch and a card switch in 2011 which will be expanded as a common payment switch.

The common ATM switch will provide convenience and accessibility for facilities such as cash withdrawals and balance inquiry from any ATM irrespective of the bank, at an affordable price. This will also provide benefits for customers of banks that do not have their own ATMs to use ATM facilities of other banks at a nominal cost. Furthermore, in preparation for fast track growth trends, the CBSL has already initiated to upgrade the RTGS system to accommodate high volumes of transactions.

References

- Central Bank of Sri Lanka. Annual Report, Various Issues.
- . Payments Bulletin, Various Issues.
- Jayamaha, Rane. "The Significance of Payment Reforms in Financial System Stability." Payment Systems and Cheque Imaging. Colombo, 2006.
- Karunathilake, H.N.S. Fifty Years of Central Banking in Sri Lanka 1950-2000. Colombo: Centre for Demographic and Socio Economic Studies, 2000.
- Wijewardena, W.A. "Real Time Gross Settlement and Scripless Government Securities."