# Chapter 11 PAYMENTS AND SETTLEMENTS

#### **11.1 Payment and Settlement System**

The national payment system consists of (i) a set of payment instruments; (ii) individuals/corporates who function as payees, payers or financial intermediaries; (iii) procedures, rules, regulations and laws which provide a sound legal infrastructure to facilitate smooth transfer of funds; and (iv) clearing and settlement systems. An efficient and robust payment and settlement system is vital for the development of the financial system and also for maintaining financial system stability.

The year 2003 witnessed the culmination of the Central Bank's move towards introducing technologically advanced payment systems in Sri Lanka, a project which the Bank started in 2001 under its modernisation programme. Under this project, payments and settlements, which were hitherto done manually, were converted to a computer based Real Time Gross Settlement (RTGS) System; government securities, which were hitherto issued in scrip form, were made scripless in a Scripless Securities Settlement (SSS) System; and the Bank's own accounting system and treasury management were automated by the installation of an Automated General Ledger System (AGLS) and Treasury Dealing Room Management System (TDRMS). The SSS System and Central Depository System (CDS), which maintained the records of government securities issued in electronic form, were brand-named as LankaSecure. The RTGS system and LankaSecure were brand-named as 'LankaSettle'. The RTGS System went live in September 2003 and the other systems were inaugurated in early 2004.

With a view to outsourcing non-core functions, the Central Bank, in April 2002, divested its cheque clearing and offline electronic payment system titled Sri Lanka Interbank Payment System (SLIPS) to a newly formed company, LankaClear (Pvt.) Ltd. (LankaClear) jointly owned by the Central Bank and licensed commercial banks (LCBs). LankaClear was expected to improve the efficiency of the clearing process of payment instruments by attracting new management and technology and adopting a cost effective operating system. As a way forward strategy, the Central Bank and LankaClear were making arrangements to implement a Cheque Imaging/Truncation Project, which is expected to be completed by end 2004. To overcome legal constraints relating to retail payments and the acceptance of electronic presentment of cheques, the Central Bank has initiated action to introduce a payment transactions law, which is expected to be passed by Parliament in 2004.

Payment System	20	2002		2003		
Fayment System	Volume ('000)	Value (Rs. bn)	Volume ('000)	Value (Rs. bn)		
Large value payment systems						
Central Bank Current Account Settlement System (a)	146,171	19,475.4	102,581	12,749.8		
RTGS System (b)		-	38	4,210.0		
Retail payment systems						
Main Cheque Clearing System	35,487	2,444.9	36,483	2,676.6		
Regional Cheque Clearing System	1,356	46.6	1,342	50.6		
SLIPS	1,609	1,335.7	2,017	979.3		
Card based payment systems						
(i) ATMs	25,118	71.9	33,569	120.4		
(ii) EFTPOS	5,940	24.9	7,751	31.3		
(iii) Credit cards	6,256	18.2	7,676	23.2		
(iv) Debit cards	6,809	22.4	9,098	32.6		
Internet banking	71	58.1	188	80.9		
Phone banking	86	32.0	106	2.1		
Postal instruments	n.a.	0.01	n.a.	0.01		
Total	228,903	23,530.1	200,849	20,957.0		
JS Dollar Cheque Clearing System (c)	17	1.9	86	10.7		

#### TABLE 11.1 Volume and Value of Transactions of Non Cash Payment Systems

(a) From 01 January to 05 September 2003

(b) From 08 September to end December 2003

(c) US Dollar Cheque Clearing System was launched on 01 October 2002

Source: Central Bank of Sri Lanka

#### Box 22

1950	- With the establishment of the Central Bank, the functions of the Colombo Clearing Hou were taken over by the Central Bank.
1988	- Manual cheque clearing continued until the Sri Lanka Automated Clearing House (SLAC was established by the CBSL in March 1988.
1994	- The CBSL introduced the Sri Lanka Interbank Payments System (SLIPS).
2002 (April)	- Functions of SLACH and SLIPS were outsourced and LankaClear (Pvt.) Limited w formed to undertake the functions of interbank clearing activities.
2002 (October)	- LankaClear extended its functions to undertake US dollar cheque clearing with settleme by Sampath Bank.
2003 (September)	- The RTGS System became operational.
2003 (November)	- Automated GLS was introduced in the CBSL.
2004 (January)	- TDRMS will be introduced in the CBSL.
2004 (February)	- SSS system will be integrated with the RTGS System.

Given the wide preference for cash as a payment and settlement instrument for retail level transactions of individuals and small scale entities, the switching over to non cash payment instruments has been slow, but it indicated an increasing trend in 2003. However, non cash payments continued to dominate in large value transactions in 2003.

#### **11.2 Cash Payments**

Currency notes and coins issued by the Central Bank under the provisions of the Monetary Law Act, No. 58 of 1949, continued to be the most popular retail payment medium among individuals and business entities to effect 'face to face' payments for transactions in acquiring goods, services and financial assets in 2003. In most institutions, salaries and wages were paid in cash despite the increased use of SLIPS for salary payments and automated teller machines and debit cards for cash withdrawals. Indicating the dominance of cash in payments, the value of currency held by the public increased from Rs. 75 billion at end 2002 to Rs. 86 billion at end 2003, thus maintaining a currency to demand deposit ratio of 53:47.

#### **11.3 Non Cash Payment Instruments**

The major non cash payment instruments in use at end 2003, included:

- (i) Paper based instruments viz. cheques, drafts, bills of exchange, and promissory notes; and
- (ii) Electronic payments effected through the RTGS System, debit/credit transfers in SLIPS, debit and credit cards, automated teller machines (ATMs), electronic fund transfers at point of sale (EFTPOS), prepaid cards, and fund transfers through phone and Internet banking.

#### **Paper Based Instruments**

#### Cheques

The use of cheques for large value payments in inter-bank money, capital and securities markets decreased since September 2003 as the participants in LankaSettle System, i.e., LCBs and Primary Dealers (PDs) were not permitted to use cheques drawn on the Central Bank to settle their day-to-day payments with the introduction of the RTGS System. The Government and some government agencies, which maintained current accounts with the Central Bank, continued to use cheques drawn on the Central Bank. LankaClear cleared those cheques.

#### **Postal Instruments**

The total value of payments made through local and foreign money orders and postal orders issued and settled by the Department of Posts during 2003 amounted to Rs.13 billion compared to Rs. 9 billion in 2002.

#### **Electronic Payment Instruments**

#### **Direct Credit Transfers**

Direct credit transfers were mainly used by corporate customers. Customers of LCBs effected credit transfers through written instructions as standing orders or electronically, by ATMs, telephones or Internet. LCBs are permitted to make cross border credit transfers. The majority of cross border transactions are effected through correspondents 'nostro' accounts with foreign counterparties. In 2003, an LCB and a non-bank company executed fast fund transfers in cooperation with an international money transfer company incorporated in the USA.

#### **Direct Debit Transfers**

Customers of LCBs used direct debit transfers to settle their regular payments on utility services (viz. electricity, telephones and water etc.), loan repayments, and dues on credit cards etc. Such direct debits of bank customers were presented by LCBs in magnetic tapes/diskettes for clearing by LankaClear in SLIPS. Direct debit transfers have shown a slow growth in recent years.

#### **Credit** Cards

Credit card, a 'settle later' type payment instrument, was the most widely used payment card for retail level transactions during the year under review. At end 2003, 9 LCBs and a nonbank company had issued credit cards in Sri Lanka. The majority of credit cards issued by LCBs are affiliated with VISA, MasterCard, or AMEX. At end 2003, the majority, i.e., 79 per cent, of the total number of cards issued were globally acceptable for payments. The total number of credit cards in use, which showed a 26 per cent growth in 2002, recorded an increase of 24 per cent in 2003, due mainly to vigorous promotional campaigns of LCBs and increased banking habits. During 2003, the total number and value of financial transactions billed under credit cards too showed a considerable growth and amounted to 7.7 million and Rs.23 billion respectively.

#### **Debit Cards**

Debit cards issued by LCBs were used for local and international payments, to check balances and for withdrawal of cash from accounts through an ATM or at an EFTPOS terminal which had direct access to a Sri Lanka rupee or foreign currency account (current, savings, Non Resident Foreign Currency Accounts etc.) of the cardholder. At end 2003, 4 LCBs had issued Visa Electron cards and debit MasterCards.

#### **Prepaid Cards**

The use of prepaid cards also expanded substantially in the recent past with the introduction of card-based networks by a number of telephone companies.

#### **Payment Cards Infrastructure**

#### Automated Teller Machines (ATMs)

ATMs, which were introduced to Sri Lanka in 1986, have fast become part of the cash system, while promoting effective cash management. At end 2003, 14 LCBs and the National Savings Bank had installed 721 ATMs. The total number of financial transactions effected through ATMs recorded a steady growth and reached 34 million during 2003. The total value of financial transactions effected through ATMs during 2003 was Rs.120 billion against the corresponding value of Rs.72 billion in 2002.

### **Electronic Fund Transfers at Point of Sale** (EFTPOS)

EFTPOS, which was introduced to Sri Lanka in 1994, has gradually become a substitute for cash and cheques. The total number of EFTPOS machines installed in the country was 5,114 at end 2003 and the total volume of financial transactions effected through EFTPOS during 2003 amounted to 8 million compared to 6 million in 2002. The total value of transactions increased by 26 per cent to Rs.31 billion in 2003 when compared with 2002.

#### **Phone/Mobile/Tele-banking Facilities**

Customers access for services under phone/mobile/telebanking facilities included: balance inquiries; credit card services; reporting of lost or stolen ATM cards and credit cards; and information on banking services and products.

At end 2003, nine LCBs provided phone/mobile/telebanking facilities to individual and corporate customers. The quality of services and degree of utilisation of these services varied from bank to bank depending on their business strategies. The total number of bank customers registered to use these services showed a significant growth of 50 per cent in 2003 compared to the previous year. The total number of financial transactions handled by phone/mobile/tele-banking too showed an increase of 23 per cent. But the total value of transactions handled through this medium recorded a substantial drop from Rs.32 billion in 2002 to Rs.2 billion in 2003 due mainly to increased preference of some customers to use the Internet for large value transactions.

#### **Internet Banking**

Internet banking commenced in Sri Lanka in 1999 to provide bank customers with conventional banking services in a convenient and efficient manner. The total number of bank customers who enjoyed this facility reached 24,650 at end 2003 while the total value of Internet banking transactions effected during 2003 increased by 39 per cent to Rs.81 billion.

#### 11.4 Interbank Clearing, Payment and Settlement Systems

During 2003, the following main inter-bank clearing, payment and settlement systems were in operation.

- Central Bank Current Account Settlement System;
- Real Time Gross Settlement (RTGS) System;
- Sri Lanka Interbank Payment System (SLIPS);
- LankaClear Cheque Clearing Systems;
- Regional Cheque Clearing System; and
- US Dollar Cheque Clearing System.

#### Central Bank Current Account Settlement System

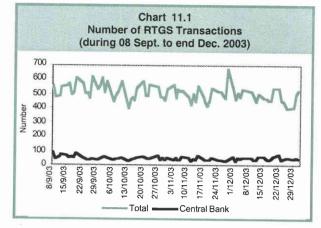
The Central Bank Current Account Settlement System was in operation until the launching of the Real Time Gross Settlement System on 08 September 2003. It settled 103 million transactions amounting to Rs. 12,750 billion during the period from 01 January to 05 September 2003.

#### Real Time Gross Settlement (RTGS) System.

The RTGS System is a computer based direct credit transfer and settlement system, which processes and settles each payment instruction immediately and irrevocably using balances in the settlement accounts of the participants maintained at the Central Bank. The RTGS System settled large value and time critical payments in Sri Lanka rupees between direct participating institutions (including the Central Bank) and customer to customer through a direct participating institution. They included transactions in the call market, government securities market, foreign exchange market (rupee leg), Central Bank open market operations, inter-bank net clearing obligations/claims under cheque and SLIPS clearing systems and regional cheque clearing conducted by the regional offices of the Central Bank. The net clearing values of all retail payment systems settled via the RTGS System amounted to Rs. 142 billion or 3 per cent of the total value of the RTGS transactions during the period of 08 September to end December 2003. Participants of the RTGS System effected some of their customer payments, particularly time critical payments of corporate customers, through the RTGS System.

The total volume of transactions settled by the RTGS System during the period from 08 September to end December 2003 was 38,454 with a total value of Rs. 4,210 billion. The average volume and value of transactions settled per day was 499 and Rs. 55 billion respectively. The Central Bank operated as well as participated in the RTGS System. The other participants were 22 LCBs, 8 non-bank PDs<sup>1</sup> and the Employees' Provident Fund (EPF).

The highest number of transactions recorded during the period from September 08 to end December 2003 was 659 and the highest value was Rs.91 billion. Out of the total



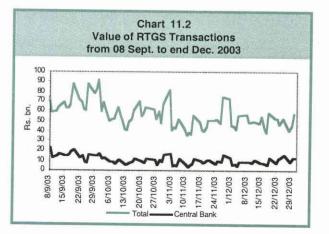
transactions, 3,735 transactions (or 10 per cent) amounting to Rs.799 billion (or 19 per cent) were Central Bank transactions. The daily behavior of the volume and value of RTGS transactions is shown in Chart 11.1 and Chart 11.2, respectively and the hourly distribution of the RTGS transactions on an average business day is shown in Chart 11.3.

The RTGS system settled mainly large value payments. Almost all transactions settled were above Rs. 1 million. With the implementation of the RTGS system, large-value same-day

#### TABLE 11.2 Transactions in RTGS System during 08 September to end December 2003

Total transactions	
Total volume of transactions	38,454
Total value of transactions in Rs. billion	4,210
Transaction volume per day	
Average number	499
Maximum number (28.11.2003)	659
Transaction value per day	
Average value in Rs. million	54,675
Maximum value in Rs. million. (01.10.2003)	90,605
Value of ILF granted per day	
Average value in Rs. million	6,490
Maximum value in Rs. million (26.09.2003)	13,334

Source: Central Bank of Sri Lanka



<sup>1</sup> At end 2003 there were 11 PDs in government securities, consisting of 3 LCBs and 8 non bank PDs.

#### **Box 23**

#### **Real Time Gross Settlement System and Scripless Securities Settlement System**

Four main reforms introduced by the CBSL with the objective of enhancing the efficiency and resilience of the financial system will be officially inaugurated in February 2004.

These reforms include the introduction of,

- Real Time Gross Settlement (RTGS) system.
- Scripless Securities Settlement (SSS) system and Central Depository System (CDS) for government securities.
- Automation of the General Ledger System (GLS) of the Central Bank.
- Treasury Dealing Room Management System (TDRMS) of the International Operations Department of the Central Bank.

#### Real Time Gross Settlement (RTGS) System

The RTGS System enables electronic, i.e., instantaneous transfer of large value and time critical payments between participants. The settlement will be on a real time gross basis. Once entries are recorded in the System, the transaction becomes final and irrevocable.

The participants of the system include the CBSL, Licensed Commercial Banks (LCBs), Primary Dealers (PDs) and two other institutional participants namely, the Employees' Provident Fund (EPF) and Central Depository System of the Colombo Stock Exchange (CSE).

Benefits to RTGS participants are as follows:

- Immediate transfer of funds.
- Reduced inconvenience due to elimination of the use of cheques in transactions with the CBSL.
- Improvement in liquidity management due to the time lag of transactions being reduced significantly.
- Benefits of manyfold increase in the turnover and volume of transactions and
- Access to interest free Intra-day Liquidity Facility (ILF) provided by the CBSL.

There will be significant benefits to the public at large too. They will benefit by,

- The reduced cheque float.
- Timely receipt of proceeds due to them from counterparties and
- The ability to make time critical payments

#### Scripless Securities Settlement (SSS) System

Under this new system, all Treasury bills and Treasury bonds will be issued in scripless form. A title registry, i.e., CDS of government securities, will be maintained by the CBSL. This will be known as LankaSecure. The SSS System will be interfaced with the RTGS System to enable delivery of securities against payment. Therefore, the participants of the SSS system will be the same as those of the RTGS system. Each participant of the SSS system will be given a browser workstation. The mode of communication in the RTGS/SSS systems will be the SWIFT messaging system. Each series of securities, i.e., each maturity of Treasury bill and Treasury bond issued at each auction or primary issue, will have a corresponding International Securities Identification Number (ISIN). All securities in the SSS system and the CDS will be identified by these numbers.

LankaSecure, the CDS or the title registry, will be located in the Public Debt Department. Each participant will have a securities account for their own account trading purposes. In addition to own accounts, Primary Dealers and Licensed Commercial Banks will maintain accounts on behalf of their customers. Investors in government securities, i.e., individuals, corporates and institutional investors, will have the flexibility to maintain any number of accounts with any one or more Primary Dealer or a commercial bank or a combination of both.

The SSS system will facilitate four types of secondary market transactions. They are:

- Outright buying and selling, i.e., Delivery versus Payment (DVP) and Receive versus Payment.
- Delivery free and receive free transactions.
- Repo and reverse repo transactions.
- Repositioning of securities.

Treasury bill and Treasury bond auctions will continue to be conducted electronically based on a system developed in-house by the CBSL. The quantity and value of securities bought by each PD will be entered to the SSS system automatically immediately after the finalisation of the primary auction. Settlement of securities by the CBSL with PDs at the primary auctions will take place on DVP basis. The DVP Model 2, i.e., receipts are netted against payments. will be used for this purpose.

The System will provide T+0 to T+10 settlement. Whenever a settlement involving a transfer of funds takes place, the System will verify the buyer's account for funds. The settlement will go through only if the buyer's account has sufficient funds for the transaction. The full amount of the transaction has to be settled at once. No partial settlement will be allowed by the System.

#### Box 23 (contd.)

Liquidity for settlement will be available to PDs and LCBs for intra-day on a collateralised basis and free of charge. Securities taken for the ILF will be valued at official prices issued by the CBSL on a daily basis.

Part I

Payment instructions will be automatically generated by the system at the maturity of securities and also when interest payments are due. All payments due to participants and their clients will be made to the participants' RTGS accounts. It is the responsibility of PDs and LCBs to credit their customer accounts on the same day on which the settlement has been made.

LankaSecure will issue monthly statements confirming the transactions that have taken place during the month and the balance at end of the month.

The existing Treasury bills and Treasury bonds held by the public will be dematerialised within the next few months. This will be necessary for the SSS system to operate effectively. The conversion from scrip to scripless will be optional and not mandatory. However, holders of scrip securities will not have the advantage of using the system to their benefit. Notices will be published in the Government Gazette and newspapers regarding the conversion process.

The benefits of the SSS system are as follows :

- Investors' risks associated with holding and trading paper-based securities will be totally eliminated.
- Investor will not experience the inconvenience of dealing with paper based certificates of government securities, such as safe keeping, endorsement and physical delivery, in the event of a trade.
- The new System will operate on DVP basis, i.e., securities will be delivered through the SSS system immediately upon confirmation of payment through the RTGS system.
- Investors will receive securities on the same day of the issue unlike in the case of scrip securities at present, which involves a time lag.
- The CDS will maintain separate accounts for each individual investor and will function as the custodian of all government securities, thus

eliminating the investor's risk of physical holding and minimising the cost of safekeeping.

- Investors will not run the risk of either failing to re-invest the funds or collect maturity proceeds or coupon interest payments, as the CDS will automatically generate the relevant reports regarding all such payments due to the investor well in advance.
- The efficiency of the System will save time taken in executing a trade and will improve liquidity in the government debt securities market.
- The PDs can reduce the margins between their buying and selling prices due to reduced cost of intermediation and enhanced liquidity.
- The System will also facilitate the surveillance of the market and supervision of PDs.

#### General Ledger System (GLS) and Treasury Dealing Room Management System (TDRMS)

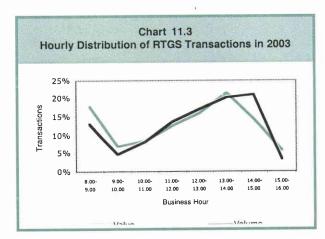
The other two systems introduced, namely GLS and TDRMS, are internal systems of the CBSL. It must be mentioned that, under the GLS, all CBSL internal accounts have been automated and brought into a computer based electronic system. As a result, the issue of cheques for payment and issue of vouchers for rewording accounting entries have ceased, thus bringing about considerable efficiency to the accounting system of the CBSL. The TDRMS provides for automated transaction capture directly from trading screens such as Reuters and Bloomberg. The analytics available in this system include:

- Real time risk monitoring and assessment capabilities and

- Several mathematical modelling tools for risk management that may be used for enhancing the quality of investment decisions.

The TDRMS will also provide for automated settlement procedure. This System will thus result in minimising the risks and enhancing efficiency and productivity in reserve management, whilst providing an efficient settlement system. payments that were earlier cleared through SLIPS were shifted to the RTGS System. There was a substantial drop in large value SLIPS transactions particularly those of more than Rs. 10 million.

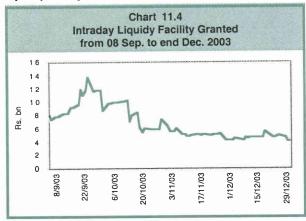
The RTGS System allowed queuing of payment instructions, i.e., a participant enters payment messages in advance pending incoming funds. During the period under review, the proportion of queued transactions was small.



#### Intraday Liquidity Facility (ILF)

Having considered the liquidity requirements of the RTGS participants to effect payment instructions instantaneously, and the importance of smooth operations of the system to achieve its objectives, the Central Bank provided intraday liquidity under the Intraday Liquidity Facility to the participants against collateral of government securities and on an interest-free basis. During the period from 08 September to end December 2003, 17 participating institutions obtained ILF amounting to Rs.500 billion with a highest daily value of Rs.13 billion and a daily average of Rs. 6.5 billion. As shown in Chart 11.4, ILF obtained by participating institutions recorded a declining trend over time.

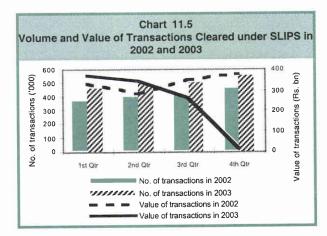
The additional liquidity created under ILF helped to smoothen the settlement process of individual payments in the RTGS System and allowed LCBs to further optimise their liquidity management.



#### Sri Lanka Interbank Payment System (SLIPS)

SLIPS, which was introduced in 1994 and has been operating as an offline inter-bank payment clearing system on multilateral net settlement basis, continued clearing of the preauthorised low value bulk payments informed by participating LCBs and the Central Bank in magnetic tapes/diskettes to LankaClear. It facilitated LCBs, the Central Bank as well as customers of LCBs to transfer funds by directly debiting the respective account and crediting of an account of another customer of another participating bank.

The total value of transactions cleared in SLIPS, which recorded a 20 per cent drop in 2002, declined further by 27 per cent to Rs.979 billion in 2003 as LCBs moved to settle their 'same day value' large inter-bank transactions in the RTGS System. Accordingly, the share of large value (above Rs.1 mllion) transactions in the total number of transactions cleared in SLIPS declined from 1.4 per cent in the first quarter of 2003 to 0.2 per cent in the fourth quarter of 2003. The total number of direct credits, which were used mainly for payment of salaries, dividends and pensions, continued to increase in 2003 but the total value continued to decline and reached Rs.979 billion in 2003.



#### LankaClear Cheque Clearing Systems

#### **Main Cheque Clearing System**

In terms of Section 112(B) of the Monetary Law Act, the Central Bank authorised LankaClear to provide cheque clearing facilities viz. sorting, exchanging of articles (cheques or drafts) among participating LCBs, balancing of amounts expressed in those articles, calculating of net balances and providing such information to the Central Bank and LCBs. The process required physical movement of cheques. All LCBs and the Central Bank participated in the main cheque clearing system of LankaClear.

The majority of cheques written against balances of rupee accounts and drawn on LCBs were presented and cleared on multilateral net settlement basis through the main cheque clearing system operated by LankaClear. The sorting of

Item	Total Volume ('000)			Total Value (Rs. bn.)		
	2002	2003	% Change	2002	2003	% Change
Transactions by size Above Rs.1 mn. Below Rs.1 mn.	24.8 1,583.9	19.2 1,997.9	-23	1,309.1	942,7	-28
Transactions by type	1,000.0	1,997.9	26	26.6	36,6	38
Credit transactions Debit transactions	1,606.6 2.1	2,015.3 1.7	25 -16	1,335.7 0.06	979.3 0.08	-27 31
Total	1,608.7	2,017.1	25	1,335.7	979.3	-27
Average transactions cleared per day	6.7	8.4	25	5.5	4.1	-27

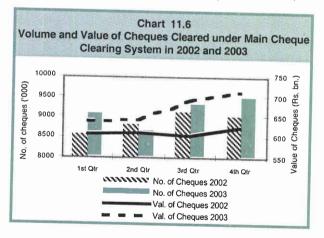
TABLE 11.3
Volume and Value of Transactions Cleared under SLIPS

Source: LankaClear (Pvt.) Ltd.

cheques by bank and branch level and occasionally to customer level was done with MICR technology and by computerised cheque reader/sorter machines.

The inter-bank net clearing obligations/claims of LCBs were irrevocably settled in the RTGS System on the working day immediately following the day on which the cheques were presented and cleared by LankaClear.

The total number of cheques cleared at the main cheque clearing system showed a 3 per cent growth in 2003. The total value of cheques cleared increased by 10 per cent to Rs.2,677



billion in 2003 and it was more than one and a half times higher than the GDP in 2003. The total number and value of large value cheques (above Rs.1 million) cleared at the main cheque clearing system continued to be about 1 per cent and 56 per cent, respectively, in 2003 as well. The average number of cheques cleared per day, which recorded a marginal drop in 2002, increased by 3 per cent to 151,383 in 2003. The number of days of cheque realisation was governed by the cheque realisation time schedule determined by LankaClear in consultation with LCBs. It varied from 1 to 10 days. About 82 per cent of cheque realisation was done within 3 days.

#### Settlement Clearing System

All cheques dishonoured by the respective paying banks at the main cheque clearing system were treated as unpaid returned items at the Settlement Clearing System, which was usually held at 1.30 p.m. on the working day following the day of the main cheque clearing. LankaClear manually cleared these items on multilateral net settlement basis and clearing balances were transmitted to the Central Bank to update the settlement accounts of the participating LCBs in the RTGS System at about 2.15 p.m. on the same day. The total value of cheques cleared at the settlement clearing system in 2003 was about Rs.34.8 billion or about 1 per cent of the total value of cheques cleared at the main cheque clearing system.

TABLE 11.4
ain Cheque Clearing System of LankaClear

Item	Total Volume ('000)			Total Value (Rs. bn.)		
	2002	2003	% Change	2002	2003	% Change
Clearing of cheques by size						Shunge
Above Rs. 100 mn.	1.1	1.2	8	364.5	345.9	-5
Rs. 1 mn. to Rs. 100 mn. Below Rs. 1 mn.	271.4	310.6	14	1,008.6	1.155.4	-5
Below As. 1 mil.	35,214.8	36,171.6	3	1,071.8	1,175.2	10
Total	35,487.4	36,483.4	3	2,444.9	2,67€ 6	10
verage cheque clearing per day	147.3	151.4	3	10.1	11.1	10

Source: LankaClear (Pvt.) Ltd.

TABLE 11.5
Cheque Realisation Time Schedule at end 2003

No. of Days	Number of Bank Branches	Percentage
1	417	38.6
2	243	22.5
3	228	21.1
4	107	9.9
5	37	3.4
7	39	3.6
10	9	0.8
Total	1,080	100
	Source	: LankaClear (Pvt.) Ltd.

#### **Rupee Draft Clearing System**

Cheques/drafts of foreign banks drawn on their 'nostro' accounts with LCBs in Sri Lanka and in favour of customers of LCBs in Sri Lanka were cleared manually at the rupee draft clearing system conducted by LankaClear. The net clearing balances of this clearing were settled at the RTGS System at about 2.15 p.m. The total value of cheques cleared at the rupee draft clearing system in 2003 was Rs. 4 billion.

#### **Regional Cheque Clearing System**

The Regional Offices of the Central Bank at Anuradhapura, Matara and Matale continued their regional clearing of cheques presented by LCBs operating in the respective regions. Net clearing obligations/claims of LCBs under regional cheque clearing were settled in the RTGS System. During 2003, regional clearing system cleared 1.3 million cheques amounting to Rs.51 billion against corresponding values of 1.4 million and Rs. 47 billion in 2002.

#### **US Dollar Cheque Clearing System**

The US Dollar Cheque Clearing System launched by LankaClear in 2002 is a semi-computerised small value retail level clearing system for cheques and drafts in US dollars issued by LCBs in Sri Lanka and payable to Sri Lankan individuals/institutions; and issued by banks/exchange houses abroad and drawn on LCBs in Sri Lanka. The relatively expeditious and cost-effective clearing process introduced by the US Dollar Cheque Clearing System helped LCBs to reduce clearing and settlement time from 3 weeks to about 4 working days. At end 2003, 16 LCBs participated in the system and settled their net clearing obligations/claims in their 'nostro' accounts at the Sampath Bank Ltd., the settlement bank. In 2003, the US Dollar Cheque Clearing System cleared and settled 86,104 cheques and drafts amounting to Rs. 10,678 million (US dollars 110.6 million).

## **11.5** Securities Trading, Clearing and Settlement Systems

The Colombo Stock Exchange (CSE), the only stock exchange in the country, operates an Automated Trading System (ATS), which was inaugurated in 1997 for real time

trading of corporate equity and debt securities listed on CSE. CSE also commenced a Debt Securities Trading System (DEX) in June 2003<sup>1</sup>.

At end 2003, there were 260 types of equities and 38 types of corporate debt securities of companies listed on CSE. During the year 2003, 254 types of equities and 19 corporate debt securities were traded. The total value and volume of securities transactions traded on the ATS recorded nearly a twofold increase when compared with 2002 and amounted Rs.73.8 billion and 2,225 million respectively during 2003. Trading in equity shares dominated as corporate debt securities contributed less than one per cent in both the total value and volume of securities transactions. Though DEX has been in operation since June 2003, there was no trading of government securities in 2003. The types of securities eligible to be traded in the DEX include the 'beneficial interest' of government securities (Treasury bills and Treasury bonds), securities issued by the Central Bank and corporate debt securities. Currently only 'beneficial interest' of government securities is being traded in the DEX. Corporate debt securities listed on CSE will also be traded through DEX shortly.

To encourage the development of the market for different types of securities, the Central Bank has taken a policy decision to appoint the Central Depository Systems (Pvt.) Ltd. (CDS) of the CSE as a direct participant in the LankaSettle System. CDS is a fully owned subsidiary of CSE, that operates an electronic clearing and settlement system for securities transactions carried out through ATS and DEX.

At end 2003, 32 organisations participated in the clearing and settlement system. This included 15 stockbrokers and 17 custodian banks. Each securities transaction executed through DEX has to be entered into the system through a stockbroker or an exclusive trading member of DEX. However, only stockbrokers are eligible to operate ATS for their clients. Customers could operate CDS accounts through custodian banks in addition to the above stockbrokers and trading members, and custodian banks too participate in clearing through CDS.

Both ATS and DEX systems are directly connected to the clearing and settlement system of CDS and matched trade details are stored in CDS. Clearing and settlement of securities traded in ATS are completed on real time by changing the title of underlying securities in CDS. The settlement of funds in respect of equity transactions take place on the fifth working day after the trade date (T+5) for the buyer and sixth working day after the trade date (T+6) for the seller. The interparticipant settlement also takes place on the sixth working day after the trade date (T+6) through CDS. For corporate debt securities traded in the ATS, the settlement date for both seller and the buyer is the first working day after the trade date (T+1). Custodian banks have the exclusive privilege of confirming or rejecting the matched equity trades of their clients on the fourth working day after the trade date (T+4). If the custodian bank

1 The trading of government securities at DEX was officially launched on 03 March 2004.

rejects a trade, the settlement liability of such trade is transferred to the stockbroker who carried out the trade.

CDS communicates settlement liabilities for trades on equity and corporate debt securities to the participants for the trades completed at CSE on a daily basis. Any settlement adjustments made due to equity trade rejections by a custodian bank will also be taken into consideration in determining the final settlement liability. Clearing and settlement of debt securities traded through DEX takes place on a Delivery versus Payment (DVP) basis. Securities will only settle provided the fund settlement is completed. Stockbrokers and the exclusive trading members of DEX maintained 'nostro' accounts with Sampath Bank Ltd. for the settlement of their liabilities. Custodian banks have the option of paying their liabilities bilaterally using either cheques, SLIPS or through the RTGS System.