MONETARY POLICY IN AN OPEN ECONOMY

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MONETARY POLICY IN AN OPEN ECONOMY THE EXPERIENCE OF SRI LANKA

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This paper is one of the 18 papers, published under a special series of publications by the Sri Lanka Economic Association (SLEA) with financial assistance from the United States Agency for International Development (USAID). The objective of these publications is to provide economic literature on current and topical themes on the economy of Sri Lanka to a broad audience that is interested in economic issues, but has little or no background in theoretical economics, while maintaining high analytical standards. Hence, the papers have been written in simple language avoiding the use of sophisticated technical terms, mathematical equations and models etc. which are normally found in economic literature.

MONETARY POLICY IN AN OPEN ECONOMY—THE EXPERIENCE OF SRI LANKA

Several significant reforms in monetary policy have taken place after the liberalisation of the economy in 1977. Today the economy is free of administrative controls to a considerable extent and market forces play a key role in regulating the economy. Further liberalisation of the economy has taken place since 1989 and this policy package consisted of financial sector reforms, removal of onerous exchange control procedures and regulations, flexible exchange rates and a movement away from the state management and ownership of enterprise. In this background, the Central Bank has reformulated its monetary policy to place a greater reliance on market based policy instruments rather than on direct controls that had been used previously.

Before the introduction of the liberalisation measures initially in 1977, the Central Bank had relied heavily on direct monetary controls, and these included administered interest rates, credit rationing and ceilings and directives to the commercial banks. The experience during that period showed that such direct controls discouraged savings and investment and discouraged commercial banks to participate more actively in financing development and acted as a set back to the development of the money and capital markets.

In order to activate the financial system, the Central Bank has effected far reaching changes in its approach to monitor and regulate money and credit.

Greater use has been made of interest rates in contrast to the methods of monetary regulation used in the pre-open economy period. Open market operations in short term securities have been increasingly used in recent years to control liquidity in the market and to influence the level of interest rates.

Open market operations were not so extensively used before 1980 and to some extent this may have been the outcome of limitations in the money market for such operations which is a feature common to developing countries. The orthodox theory says that a developed money market is necessary for effective open market operations. But in a country like Sri Lanka, the Central Bank has a duty to build up the market and to use even the limited potential available in the market to the maximum extent. As distinguished from the organised money market a very large unorganised money market exists in the country.

Steps taken by the Central Bank, particularly, since the second half of nineteen eighties to develop the money market had produced some results. For instance, the introduction of regular Treasury Bill auctions helped to produce market determined competitive rates for the bills, thus making these bills more attractive to non-bank investors. After 1987 with more attractive rates being offered, the Central Bank holdings of Treasury Bills tended to come down substantially. In this way, the Central Bank has been able to use Treasury Bills as the major instrument for its open market operations.

Another significant development in monetary policy in a liberalised economy is the freeing of interest rates, and giving opportunities for the markets to determine the levels. In the earlier controlled regime, interest rates on deposits and on credit extended by commercial banks and other financial institutions were kept low by administrative means. In the unorganized sector, there is no state intervention and regulation, but private money lenders have always charged exorbitant interest rates from borrowers. There was no way in which the Central Bank could influence interest rates in the unorganised sector and the other terms on which credit is given because it had no channels of access to this sector. The high rates in the unorganized money market often do not promote the right types of productive and viable investments and much of the credit is given for consumption.

As a further step, in shifting the emphasis from more direct regulation to market based monetary controls, the Central Bank in 1991 decided to phase out its refinance schemes. Although these schemes were effective in providing credit to priority sectors, they tended to some extent to nullify the effects of monetary policy partly because refinance involved the direct disbursement of funds from the Central Bank. Besides, these schemes caused distortions in the financial market, since certain categories of privileged borrowers were able to get credit at subsidised interest rates.

Monetary measures have come to play an increasingly crucial role in providing the right incentives in the open economy. These measures have contributed

to activate the money and capital markets and make them function more effectively. Activities in the money and capital markets have expanded considerably after 1990 with the further liberalisation of exchange controls and the wide range of fiscal incentives given to both foreign and local investors, under broad financial sector reforms. In this background, the Central Bank has taken suitable monetary measures to support the ongoing liberalisation programme.

Moreover, the monetary authorities have had to deal with problems like credit indiscipline, loan delinquency and insolvency of financial institutions. Since 1989, a series of steps have been taken to overcome these problems. They have included, the enactment of credit recovery laws and strengthening of the Central Bank's supervision of commercial banks and non-bank financial institutions. In practical terms, the work of the Central Bank has increased considerably in this context because many financial institutions have had opportunities of functioning with greater freedom and this undoubtedly has confronted them with problems which have arisen from deficiencies in internal management.

The purpose of this study is to examine the role of monetary policy in an open economy, drawing on the experience of Sri Lanka. Part 2 of this paper focusses on the newly reformulated systems of monetary control in the context of the open economy. The implications of interest rate liberalisation are discussed in Part 3, while Part 4 examines how the monetary authorities have shifted towards open market operations by developing the money market. Part 5 reviews some implications of the refinance facilities. The

management of reserve money through net domestic assets is analysed in Part 6. The use of reserve requirements as an instrument of monetary policy is discussed in Part 7. The experience of Sri Lanka with regard to the use of other monetary controls like credit ceilings and margin requirements are examined in Part 8. Part 9 of the study deals with the supplementary policy measures adopted during the period under consideration. Part 10 presents the conclusions based on the study.

2. NEW MONETARY CONTROL FRAMEWORK

The main objective of monetary policy is to control the availability and cost of liquid assets in the economy so as to facilitate achieving certain macroeconomic goals including faster economic growth, high level of employment, low inflation and balance of payments equilibrium. Money may be treated as the most liquid asset in any economy. However, assets such as time and savings deposits of commercial banks became easily convertible into currency, and therefore, they can also be treated as a part of the money supply. The concept of money supply may be extended to include other assets like deposits in non-bank financial institutions, eg. finance companies. In this context, it is essential to identify the correct composition of money supply to control the overall liquidity of the economy effectively. In Sri Lanka two concepts of money supply (narrow and broad) are used at present for monetary policy purposes (Table 2. 1).

TABLE 2.1

COMPOSITION OF MONEY SUPPLY

End of Period	Narrow Money (=M1)	Quasi Money	Broad Money (=M2)	M1 as% of M2	M2 as Ratio of GDP
1970	1967	1148	3115	63.1	0.23
1971	2149	1286	3435	62.6	0.24
1972	2482	1493	3974	62.4	0.26
1973	2778	1376	4154	66.9	0.23
1974	2946	1623	4568	64.5	0.19
1975	3088	1669	4757	64.9	0.18
1976	4166	2155	6321	65.9	0.21
1977	5366	3351	8717	61.6	0.24
1978	5936	4956	10892	54.5	0.26
1979	7669	7388	15058	50.9	0.29
1980	9428	10432	19860	47.5	0.30
1981	10024	14422	24446	41.0	0.29
1982	11760	18750	30510	38.5	0.31
1983	14748	22509	37257	39.6	0.31
1984	16824	26603	43427	38.7	0.28
1985	18761	29648	48409	38.8	0.30
1986	21179	29681	50860	41.6	0.28
1987	25083	33252	58335	43.0	0.30
1988	32379	35567	67946	47.7	0.31
1989	35338	41096	76434	46.2	0 30
1990	39878	51139	91017	43.8	0.28
1991	47055	65043	112098	42.0	0.30

Source: Central Bank of Sri Lanka.

Definitions: Narrow Money (M1) = Currency and demand deposits held by the public.

Quasi Money = Time and Savings deposits held by the public.

M2 = M1 + Quasi Money

The main instruments of monetary policy that are used to control the money supply can be classified into the following categories:

1. Market intervention
   1.1 Open Market Operations
   1.2 Bank Rate
2. Portfolio Limits
   2.1 Reserve Requirements
   2.2 Credit Ceilings
3. Other Instruments
   3.1 Prior Import Deposits
   3.2 Moral Suasion

Of these instruments, open market operations, Bank rate and reserve requirements are market based and are indirect type of controls. Credit ceilings, prior import deposits and moral suasion are direct controls. It is widely accepted now that direct monetary instruments tend to create distortions in the financial market and eventually their effectiveness in monetary control is likely to get eroded as discussed above. In contrast, indirect instruments of monetary policy are found to be more efficient in the management of liquidity in the economy. Traditionally most developing countries have depended on direct controls, mainly due to the lack of developed money markets. However, many of these countries have taken action in recent years to move away from direct controls and reorient their financial systems so that there will be more scope for indirect regulation.

Let us explain each of these monetary policy instruments briefly.

(a) Open market operations mean buying or selling securities (usually government paper) by the monetary authorities to affect interest rates and the money supply. For instance, the sale of government securities by the Central Bank will lead to a reduction in cash assets of both the banking system and the public and will also result in an increase in interest rates. Purchase of securities by the Central Bank will have the opposite effect.

(b) The Bank Rate at which the Central Bank offers advances to commercial banks for their temporary liquid purposes, is used to influence cost of credit. For instance, an increase in Bank rate raises the cost of credit and thereby reduces the availability of liquidity and vice versa.

(c) The minimum cash reserve ratio against deposits to be maintained by commercial banks is always stipulated by law. The Central Bank can influence the credit creation of commercial banks by changing this ratio, affecting the credit multiplier.[1] An increase in the reserve requirements reduces the ability of the banks to create credit and vice versa.

(d) The Central Bank can also impose a ceiling on overall lending or on lending for specified purposes. They may also take the form of margin requirements, ie. requiring borrowers to finance a part of their credit needs themselves.

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1 The multiplier can be expressed as $K=(c+1)/(c+r)$ where c denotes currency (outside banks) — to — deposits and r denotes the banks' reserves — to — deposit ratio.

(e) Under prior import deposits, importers are required to maintain a deposit with the banking system for a specified period as a part of the funds needed for import payment.

(f) Moral suasion means that the Central Bank requests commercial banks and other financial institutions to conduct their operations in accordance with the general views of the monetary authority.

The monetary policy instruments are linked with ultimate macroeconomic goals through intermediate targets, such as market interest rates and availability of money and credit. This transmission mechanism which links monetary policy instruments, intermediate targets and ultimate targets, varies over time, depending on the type of financial system in existence. The monetary authorities control the total money stock[1] by influencing the monetary base and money multiplier. The monetary base consists of currency held by banks, currency held by the public and reserves of commercial banks with the Central Bank. The monetary base is affected by net foreign assets of the Central Banks' net claims on government and net claims on financial institutions.

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[1]The total money stock (=M) can be defined as follows:

$M = mH$

where

m = money multiplier

H = Monetary Base (or high powered money or reserve money)

In Sri Lanka, the framework of monetary control in the present liberalised financial system differs from that in the pre-reform system. In a closed economy model with fixed exchange rates and a restrictive financial system, the control of money supply is relatively less complex and the link between monetary policy and aggregate demand is more direct. The monetary authorities are able to determine the money supply more effectively in such a system by controlling (a) its net foreign assets through foreign exchange budgeting; and (b) credit from Commercial Banks through direct controls.

These direct controls include interest rate regulations, reserve requirements and directed credit. These were the main instruments of monetary policy used in the previous closed system. In general, the narrow money supply was considered the major intermediate target in that system since there was little scope to develop other financial assets in a restrictive system. This type of monetary framework was in operation in Sri Lanka prior to 1977.

With the opening up of the economy in 1977, and the further liberalisation measures put into effect since 1989, these earlier monetary policy instruments have become ineffective and unproductive.[1] With the policy reforms, the monetary policy became a part of the overall policy framework geared to implement substantial macroeconomic adjustments. These adjustments were supported by the Structural Adjustment

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[1] The mechanism of monetary control in an open economy is presented in the Monetary Approach to the Balance of Payments.

Facility and other financial assistance programmes of the IMF and the World Bank. The economy is now free of exchange controls to a considerable extent and the exchange rate is more flexible. The financial sector has been considerably liberalised. In such a system the monetary control and the transmission mechanisms have become more complex. The Central Bank has found it difficult to control its own net foreign assets due to foreign exchange relaxation. Similarly, it has found it difficult to contain net claims on the government due to deficit financing. Thus, the Central Bank has been able to control the monetary base only through its influence on net claims on financial institutions. In this context, the Central Bank had to adopt a new monetary control framework to deal with excess liquidity in the economy without disturbing the increased level of economic activities that took place after the liberalisation.

Until early 1988 an administered structure of interest rates was used as a major monetary policy instrument. Since then, the emphasis has been shifted towards open market operations. The Central Bank is now able to manage its net domestic assets through open market operations to a large extent, thus influencing reserve money. Changes in reserve money, in turn, affect the overall money supply and interest rates in the market.

Under these new arrangements, the intermediate targets are different from those in the pre-reform era. In the previous system the narrow money supply (=MI) was used as a major intermediate target. Banking innovations with regard to time and savings deposits

in recent years have made those deposits as liquid as demand deposits. Therefore, the Central Bank decided in 1980 to adopt the concept of broad money supply (=M2) so as to include quasi money, which consists of time and savings deposits of the public held with commercial banks (Table 2.1). Thus, broad money supply has become a major intermediate target of monetary policy in addition to the narrow money supply.

Given the above framework of monetary control and intermediate targets, the Central Bank introduced a National Credit Plan (NCP) in 1981. The main objective of the NCP was to set out monetary and credit targets on the basis of forecasts relating to variables such as net foreign assets, net credit to government and the private sector, economic growth, the balance of payments, fiscal performance and inflation. The NCP has been prepared continuously on an annual basis and the Central Bank has used these credit plans as a guide to monetary management.

3. INTEREST RATE LIBERALISATION

A major element of monetary policy reforms adopted since 1977 has been the liberalisation of interest rates. In the pre-reform period the money and capital markets were fragmented into two sectors; an organised sector consisting of financial institutions (mainly banks) and an unorganised sector with informal credit institutions and private money lenders. Interest rates remained high in the unorganised sector. In contrast, interest rates in the formal sector were kept at low levels by means of interest rate ceilings, subsidised credit allocations and high reserve ratios. Meanwhile, the banks found it difficult to attract deposits due to relatively low interest rates. Therefore, they had to ration their credit, giving priority to large scale established

enterprises. Since the small scale borrowers were neglected by official institutions, they depended on the unorganised sector ('curb' market) at high cost.

This type of money and capital market segmentation has been characterised as financial repression by Mckinnon (1973) and Shaw (1973). According to this school of thought, the removal of financial repression through financial liberalisation policies would make the returns on the assets with official financial institutions (mainly time and savings deposits with commercial banks) more attractive, and therefore, more funds would flow to this segment of the capital market. As a result, these institutions would be able to reduce their credit rationing and would disburse cheaper credit to smaller firms that had been neglected earlier. With the expansion of credit provided by formal financial institutions, the curb market could be phased out gradually. It is expected that this would lead to an improvement in the overall efficiency of resource allocation since the distribution of credit in the organised sector will be based on the rates of return rather than on administrative rules.

As part of the broad economic reforms, action was taken in 1977 to make use of interest rates more effectively. A major feature in the period before the reforms was the existence of low interest rates through administrative measures. This inflexible interest rate structure not only discouraged savings and investment but also weakened the effectiveness of interest rates as an instrument of policy. Since interest rates were not allowed to be adjusted for domestic inflation, real interest rates remained generally negative prior to 1977[1] (Table 3.1)

[1] Real interest rate is defined here as the difference between interest rates on 12 months' fixed deposits of commercial banks and rate of change of the Colombo Consumer Price Index.

TABLE 3.1

Interest Rates
(Percentages)

End of Period	Bank Rate	Deposit Rates	Rate of Inflation	Real Rate Interest of
1970	5.5	4.5	5.90	-1.40
1971	6.5	4.5	2.68	1.82
1972	6.5	4.5	6.27	-1.77
1973	6.5	4.5	9.68	-5.18
1974	6.5	4.5	12.33	-7.83
1975	6.5	7.3	6.73	0.52
1976	6.5	7.3	1.21	6.04
1977	10.0	14.5	1.25	13.25
1978	10.0	14.5	12.11	2.39
1979	10.0	14.5	10.76	3.74
1980	12.0	20.0	26.12	-6.12
1981	14.0	21.0	17.98	3.02
1982	14.0	18.5	10.84	7.66
1983	13.0	19.0	13.96	5.04
1984	13.0	18.0	16.64	1.36
1985	11.0	15.0	1.46	13.54
1986	11.0	11.3	7.98	3.27
1987	10.0	11.3	7.72	3.53
1988	10.0	12.3	13.99	-1.74
1989	14.0	15.8	11.57	4.18
1990	15.0	16.0	21.49	-5.49
1991	17.0	16.0	14.00	2.00

Note: The deposit rates shown here are the average of maximum and minimum values of commercial banks' deposit rates for 24 months.

Real interest rate is the difference between the deposit rate and inflation rate.

In an effort to raise market interest rates, Bank rate was raised from 6.5 per cent to 10 per cent in 1977. Following this increase, interest rates in commercial banks and other savings institutions rose substantially. Commercial banks raised their interest rates on fixed deposits for 12 months or more from 7 - 7.5 per cent to 14-15 per cent; rates on short term deposits were also raised considerably. The savings deposit rates of commercial banks rose from 5.5 per cent to 7.2 per cent. The National Savings Bank raised its rates on fixed deposits of 6 months or above from 7.5 per cent to 12-18 per cent. Interest rates on deposits held by finance companies rose by 1-4 percentage points to a range of 9-20 per cent. Corresponding increases took place in interest rates offered on government securities. The long term bond rate rose from 9 per cent to 10 per cent and the Treasury Bill auction rate went up from 5 per cent to 9 per cent in late 1977.

The upward movement of interest rates helped to maintain positive real interest rates throughout the period 1977-1991 except in 3 years when inflation was excessive. The Central Bank took action to further raise interest rates in 1980 and 1981 in order to deal with excess liquidity in the economy which resulted in a sharp increase in prices. In April 1980, Bank rate was raised from 10 to 12 per cent and the period rate structure was increased from 15-25 per cent to 20-30 per cent. This was followed by increases in deposit and lending rates of commercial banks and other lending institutions. The Treasury Bill rate rose from 9 per cent to 13 per cent and the rate on government securities increased from 10 per cent to 16

per cent. In August 1981, the Central Bank increased Bank rate from 12 per cent to 14 per cent and penal rates from 20-30 per cent to 21-30 per cent. The real interest rate became negative in 1980 irrespective of the increases in nominal interest and this was attributed to high inflation.

A significant development that followed the interest rate liberalisation was the tendency for interest rates to fluctuate depending on demand and supply in the market. In 1982, for instance, commercial banks reduced interest rates on all classes of time deposits since liquidity rose sharply due to a substantial growth of deposits and a significant fall in the demand for credit from the private sector. It is significant that this change was implemented by the commercial banks in the absence of any change in Bank rate. The downward adjustment of deposit rates continued until mid 1988.

In 1988, interest rates started to move upwards reflecting the reduced supply of funds in the market and growing inflationary pressures. The rise in interest rates was more prominent where interest rates were determined largely by market forces. In the Treasury Bill market, rates became increasingly market determined with only minor interventions by the authorities. In the latter part of 1988, the Treasury Bill rate rose significantly due to increased demand for funds by the government. Accordingly, the weighted annual average yield on Treasury Bills increased from 10.77 per cent at the end of 1987 to 18.86 per cent by the end of 1988. In response to these developments in the primary Treasury Bill market,

the discount and rediscount rates in the secondary Treasury Bill market rose from 7.26 and 11.26 per cent respectively, at the end of 1987 to 18 and 23 per cent per annum by the end of 1988.

Along with the above movements, in 1988, interest rate increases took place in the banking system. The inter-bank call money market rate rose significantly from a range of 11-14 per cent per annum at the end of 1987 to 16-21 per cent per annum by the end of 1988. Interest rates on fixed deposits of commercial banks and Certificates of Deposit were also raised in the latter part of the year.

Interest rates continued to be responsive to market forces in 1989. Due to inflationary pressures in the economy, interest rates moved upward during the year. Bank rate was raised from 10 to 14 per cent in June 1989 as a stabilization measure. A heavy demand for funds by the government coupled with inflationary pressures tended to push up the yields on the Treasury Bills. The weighted average yield on 12 months Treasury Bills rose from 18.8 per cent at end of June 1989 to 19.1 per cent at the end of the year. The interest rates in the inter-bank call money market fluctuated in the third quarter of 1989 and settled down at a slightly lower level by the end of the year. The minimum and maximum rates of commercial banks' 12 month deposits increased from a range of 15.5 per cent per annum at the end of 1988 to a range of 11 to 25 per cent by end of 1989. Similar increases in deposit rates were evident in the other financial institutions.

Interest rates remained at high levels by 1990 due to acceleration of inflation and the increased demand for funds. Meanwhile, Bank rate was raised from 14

to 15 per cent in July 1990. The rates in the Treasury Bill market rose, particularly during the second half of the year. The weighted average yield on Treasury Bills increased from a range 15.4 - 16.9 per cent per annum in May 1990 to 17.4 - 18.4 per cent by the end of the year. Discount and rediscount rates in the secondary Treasury Bill market also rose. Interest rates in the inter-bank call money market fluctuated widely in 1990 and reached the highest range of 19-30 per cent per annum in August 1990. The minimum and maximum rates on 12 months fixed deposits declined in March 1990, but increased thereafter. The National Savings Bank raised its savings and fixed deposit rates by 2 percentage points per annum in July 1990.

With a view to containing the high rates of monetary and credit expansion, the Central Bank took further monetary measures. In January 1991, Bank rate was raised from 15 to 17 per cent. However, a falling trend in interest rates in certain markets in the subsequent months was observed and this could be mainly attributed to the decline in the rate of inflation. For instance, interest rates in the primary and secondary Treasury Bill markets declined from an average range of 17.4 - 18.4 per cent at the end of 1990 to 16.3 - 17.6 by June 1991. Interest rates in the call loans market fluctuated considerably in the recent past, reflecting varying liquidity positions of commercial banks.

The low level of financial savings has been a major setback to economic growth in many developing countries including Sri Lanka. This situation arose due to a number of factors including poor

money and capital markets, negative real interest rates and distortions in the financial markets. Most of these factors resulted from administered interest rates that were in operation during the regime of economic controls. Liberalisation of interest rates helped to eliminate these factors and provided an impetus to the growth of savings.

A proxy that can be used to measure financial savings is the magnitude of broad money which includes monetary assets and quasi monetary deposits with the banking system (=M2). As shown in Table 2.1, financial savings (=M2) as a ratio of GDP declined considerably during the period 1971-75 and this was mainly due to negative real interest rates. The situation improved marginally in 1976 with a rise in the real interest rates.

The nominal interest rates rose dramatically in 1977 after the monetary policy reforms which brought about positive real interest rates. These rates reached a peak in 1981 and continued to remain high until about 1984, with positive real interest rates, except in 1980. Between 1985 and 1988, the rates remained at a relatively low level due to an increase in the supply of funds in the market. However, real interest rates took positive values in that period. The nominal interest rates rose again in 1989 and they have continued to remain high. A fall in real interest rates was experienced only in 1990.

It is evident that the upward shift in real interest rates has significantly contributed to the growth of savings in Sri Lanka. The savings and

fixed deposits with commercial banks (quasi money) in 1979 (ie after the reform) was more than twice that in 1977. In real terms, these deposits rose at an annual average rate of 33.0 per cent in 1977-80 as against an average of 6.2 per cent in 1970-76. Reaching a peak level in 1982 these deposits continued to grow throughout the period upto 1991.

The growth of quasi money, on the other hand, led to a decline in the currency component of money supply. Until 1977 the currency in circulation had accounted for about 33 per cent of M2 and the ratio declined to about 20 per cent by 1981. Partly as a result of the slight downward movement of real interest rates and the civil disturbances in the country since 1985, the share of currency in circulation in relation to bank deposits showed an increase, particularly in 1988. This trend began to reverse in 1989 and could be mainly attributed to the inducement provided to savers through reforms in the financial sector.

4. OPEN MARKET OPERATIONS

In recent years, the Central Bank has made extensive use of open market operations as an instrument of monetary policy. As in the case of many other developing countries, open market operations have proved to be ineffective in Sri Lanka due to factors such as the underdeveloped nature of the money market and heavy reliance on the banking sector to finance fiscal deficits. Therefore, it was difficult to use open market operations for monetary management purposes until the mid - 80' s.

In order to expand the role of open market operations, as an instrument of policy, the Central Bank adopted several measures. The main purpose of these measures was to develop the money market so as to reduce heavy dependence of the government on the banking system to finance its budget deficits. It was envisaged that these measures would provide more leverage to the Central Bank to control its domestic assets and thereby influence reserve money. The level of reserve money, in turn, will affect market interest rates. This transmission mechanism was quite different from the earlier methods of monetary control, which involved administered interest rates and directed credit. Such regulations tended to weaken the effectiveness of monetary management and to create distortions in the financial market.

By the early nineteen eighties, it was found that the traditional methods of monetary control had failed to regulate liquidity in the economy and that it would not promote savings and investment under the new open economy arrangements. During the period 1980-83, M2 rose at an average rate of 25 per cent per annum. This was mainly attributable to heavy bank borrowings by the government which had an average budget deficit of 20 per cent of GDP during that period. The liquidity expansion became further acute by 1984 due to an increase in net external assets arising from higher export earnings. Hitherto, the Central Bank had used the conventional instruments like reserve requirements and credit ceilings, but these methods of regulation were found to be ineffective to mop up excess liquidity.

Therefore, the Central Bank began to shift the emphasis to open market operations by mid - 1984. The money and capital markets were not adequately equipped for open market operations despite the various measures that the Central Bank had taken to develop the market. Meanwhile, the government had to rely heavily on the Central Bank to finance the budget deficit. As public subscriptions to Treasury Bills were low, the Central Bank had to purchase almost the entirety of the Bill issues and this trend continued until about 1986.

As an initial step to broaden and activate the market, the Central Bank issued its own securities for the first time in 1984.[1] A remarkable feature observed in 1984 was the ability of the Central Bank to contract its net domestic assets and in turn, to control the possible excessive growth of reserve money arising from increasing net foreign assets. (Table 4.1) This was possible mainly through a reduction in credit to government by the Central Bank. The gross credit by the bank to the government declined by 21 per cent in 1984 and this resulted in a decline of net claims of the government by 24 per cent. This enabled the Central Bank to contract the impact of the net government claims on reserve money by 37 per cent in 1984. The reduction of net government claims was a breakthrough in the context of effective use of open market operations.

Greater public interest in subscription to Treasury Bills was observed in 1984; the Treasury Bill holdings of the non-bank sector rose to 10.3 per

[1] Further issues were made in the two subsequent years and it was phased out in 1989.

TABLE 4.1

FACTORS AFFECTING THE MONEY SUPPLY Rs. Mn.

End of Period	External Banking Assets (Net)	Domestic Credit				
			Private Sector			Total
		Government (Net)	Government Corporations	Co-operatives	Other Private Sector	(2)+(3)+(4)+(5)
	(1)	(2)	(3)	(4)	(5)	(6)
1970	-599	2559	297	295	1024	4176
1971	-399	2717	359	291	1109	4476
1972	-318	2764	563	383	1241	4951
1973	32	2660	419	373	1373	4823
1974	-147	2526	1060	562	1614	5762
1975	362	2810	1013	550	1840	6213
1976	109	3267	1056	663	2266	7252
1977	3706	2989	1670	1231	2884	8775
1978	5590	1863	2363	1675	4774	10675
1979	6808	2920	3347	1908	6797	14972
1980	3631	8972	4123	1368	11341	25804
1981	2940	12789	4488	1291	15396	33967
1982	2450	17150	4677	1188	19382	42398
1983	3155	17533	4385	1823	25552	49293
1984	9951	14554	4148	1568	29656	49926
1985	9183	20348	4438	1304	33136	59226
1986	9180	22546	4739	1425	35400	64109
1987	9291	27048	7366	1123	40029	75566
1988	7059	36065	10787	1319	48697	96867
1989	4732	36119	13862	1178	51163	102321
1990	10207	39197	15636	1596	63435	119864
1991	17305	41792	14077	1757	76599	134226

Source: Central Bank of Sri Lanka

cent in 1984 from an average of about less than 1.0 per cent in the previous years. (Table 4.3) The share of the non-bank sector in Treasury Bill ownership rose rapidly to 39 per cent by 1990. Meanwhile the share of commercial banks also began to increase from 1987 onwards rising from 0.6 per cent in 1986 to 12.7 per cent in 1991. In line with these trends, the Treasury Bill holdings of the Central Bank declined sharply from 99.1 per cent in 1983 to 48 per cent in 1991.

The growth of the Treasury Bill market is mainly the result of policies adopted by the Central Bank to activate the market. The initial step was the raising of the Treasury Bill rate to 9 per cent in 1977 which had remained unchanged at 5 per cent since 1971. The rate was further increased to 13 per cent in 1980.

The introduction of a secondary market for Treasury Bills in April 1981 was another major factor that led to the development of the Bill market. According to this new scheme, the Central Bank introduced a secondary window for the re-sale of Treasury Bills from its portfolio quoting discount rates between the range of 15.5 to 16 per cent per annum. The market became somewhat active at the initial stages of this scheme due to the lower short term rates that prevailed in the call money market (11-14 per cent). Another development in the Treasury Bill market in 1981 was the introduction of 6 months' bills in addition to 12 months' bills.

In recent years the Central Bank has taken further steps to develop the Treasury Bill market.

Table 4.3
Ownership of Treasury Bills (Rs. Mn)

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1. BANK SECTOR	130771	17173	17265	13324	20621	22261	25623	36794	40380	41258	41271
1.1 Central Bank	130761	16593	17257	13320	20621	22111	22288	33270	34098	30651	35032
1.2 Com. Banks	13	580	8	4	0	150	3335	3525	6282	10601	9210
2. NON-BANK SECTOR	117	147	135	1536	1660	3909	4227	6906	16865	26710	28697
2.1 EPF	5	0	0	0	0	0	0	0	0	0	1000
2.2 Other PF	9	6	6	1		180	189	2850	6611	9684	6382
2.3 Savings Ins.	0.0	0.0	0.0	1380	200	109	658	575	2301	7776	7287
2.4 Insur. & Fin. Co.	3	3	3	3	3	21	137	1026	2331	1715	2738
2.5 Dept & other Off. Funds	130	139	126	145	1445	3297	2707	70	16	18	21
2.6 Other	0.0	0.0	0.0	8	12	11	237	2381	5607	7517	11269
3. TOTAL	130920	17320	17400	14860	22280	26173	29850	43700	57246	67968	72968
(PERCENTAGES)	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
1. BANK SECTOR	99.9	99.1	99.2	89.7	92.6	85.1	85.8	84.2	70.5	60.7	60.7
1.1 Central Bank	99.9	95.8	99.2	89.6	92.6	84.5	74.7	76.1	59.6	45.1	48
1.2 Com. Banks	0.0	3.3	0.0	0.0	0.0	0.6	11.2	8.1	11	15.6	12.7
2. NON-BANK SECTOR	0.1	0.9	0.8	10.3	7.4	11.9	14.2	15.8	29.5	39.3	39.3
2.1 EPF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
2.2 Other PF	0.0	0.0	0.0	0.0	0.0	0.7	1.6	6.5	11.5	14.2	8.7
2.3 Savings Ins.	0.0	0.0	0.0	9.3	0.9	1.5	2.2	1.3	4	11.4	10
2.4 Insur. & Fin. Co.	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.3	1.1	2.5	3.8
2.5 Dept & other off. funds	0.1	0.8	0.7	1	6.5	12.6	9.1	0.2	0.0	0.0	0.0
2.6 Other	0.0	0.0	0.0	0.1	0.1	0.0	0.8	5.5	9.8	11.1	15.4
3. TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The weekly Treasury Bill auction was introduced in November 1986 and it has become an effective instrument of monetary management. Under the auction system, the public forward their bids to the Central Bank; the bids contain the volume of Treasury Bills demanded and a bid price. The Bank accepts or rejects bids on the basis of a cut-off yield. Effective from January 1987, the determination of the yield on Treasury Bills has been based on market forces. Since late 1987, the amount of bills to be auctioned has been determined by a committee consisting of Central Bank and Treasury officials. However, the amount of bills offered was largely based on the amount of bills maturing. The cut-off yield has been determined by a Tender committee. The net domestic assets of the Central Bank has been used as a major intermediate target in determining the cut-off yield since early 1988.

In 1990, Treasury Bills with maturity periods shorter than 3 months were also issued in addition to the issues with maturities of 3, 6 and 12 months. The Central Bank also introduced the Tap System (ie. outside the auction mechanism) permitting selected commercial banks and money brokers in the Colombo area and its regional offices to participate in sales of Treasury Bills. As a further measure to popularise government securities and to divert black money to the organised money market, Treasury Certificates of Deposits (CDs) were introduced in May 1990. These CDs have been issued with maturity periods of 3, 6 and 12 months at varying discount rates.

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The intensified efforts of the Central Bank to sell Treasury Bills to the non-bank sector both in the primary and secondary markets helped to reduce the net claims on the Central Bank and thereby to reduce the growth of reserve money.

5. REFINANCE FACILITIES OF THE CENTRAL BANK.

The Central Bank has been operating several refinance schemes for specific purposes. These schemes cover guaranteed price schemes, agricultural credit, export credit, temporary liquidity facilities to commercial banks and the Medium and Long Term Credit Fund. Loans and advances granted to commercial banks and other financial institutions by the Central Bank under these schemes affect the money supply through their influence on reserve money. Therefore, the Central Bank has to be cautious to avoid any abrupt effects on reserve money when providing credit to commercial banks and other financial institutions under these schemes.

In some years, credit facilities provided under the schemes caused problems for monetary management. This was particularly evident in 1983, 1986 and 1990 when loans and advances given to financial institutions by the Central Bank increased substantially. The amount of such credit rose by Rs. 1.5 billion in 1983 due to the extension of refinance facilities to the export sector. The amount increased further by Rs. 1.0 billion in 1986 reflecting increased facilities for productive activities. In 1990, refinance granted to the CWE and the Oils and Fats Corporation

contributed to an increase of Rs. 3.0 billion. Thus, refinance schemes had an expansionary impact in these three years. For instance, approximately 11 per cent of the reserve money growth in 1990 was caused by refinance facilities.

In 1991, in view of the above adverse consequences, the Central Bank took several steps to rationalise the refinance facilities. These measures included a progressive reduction of refinance facilities for well established traditional exports, withdrawal of special refinance facilities and review of other finance schemes. Accordingly, the Central Bank took steps to curtail refinance credit in April 1991; the refinance facilities for bulk tea were to be progressively withdrawn while the coverage of refinance for items under category 1 was reduced to 50 per cent. As a result of these measures, the total outstanding amount of refinance declined by 17.8 per cent from Rs. 7,330 million at the end of 1990 to Rs. 6029 million in September 1991. This largely reflected the substantial decline in export credit refinance under category 1.

It is expected that further rationalization of these schemes will strengthen the ability of the monetary authorities to manage reserve money. As regards lending to commercial banks to overcome their temporary liquidity problems, the Central Bank has imposed limits from time to time on this facility.

6. MANAGEMENT OF RESERVE MONEY

The Central Bank has used open market operations and management of net claims on financial institutions, to control the volume of reserve money,

in recent years. In other words, the Central Bank controls reserve money by managing its own balance sheet. This Section analyses the recent experience of Sri Lanka in using this instrument as a mechanism of monetary control.

As explained in Section 2.1 of this paper, the stock of reserve money depends on net foreign assets of the Central Bank, net claims on government and net claims on financial institutions; in addition, net other liabilities also have implications for reserve money. Now let us examine how the monetary authorities can control the reserve money stock by influencing these components. As regards net foreign assets, the monetary authority in a closed system has greater control since the movements of foreign assets can be more effectively managed by direct import and exchange controls. In a liberalised foreign trade and exchange system the authorities are bound to loose this policy tool as the movement of foreign assets will be largely determined by market forces with minor official intervention. This is emphasised in the Monetary Approach to the balance of payment.

Considering the above limitations with respect to net foreign assets, the ability of the monetary authority to control reserve money depends to a large extent on the scope available to influence net domestic assets, ie. net claims on government and financial institutions. It is significant to note here that the Central Bank has made some progress in effecting monetary control through this mechanism as described below.

TABLE 6.1

Factors Affecting Reserve Money

(Changes as % of Reserve Money at beginning of the period)

End of Period	Net Foreign Assets	Net Claims on Govt.	Net Claims on Fin. Institutions	Other Net
1971	12.6	5.9	1.5	7.5
1972	1.7	15.7	-5.1	-6.6
1973	16.9	6.5	6.5	8.2
1974	-12.9	3.0	20.7	6.2
1975	-9.2	9.4	-3.6	1.6
1976	14.2	16.4	-8.7	-3.9
1977	109.2	-9.3	18.4	76.0
1978	49.3	-23.6	5.0	19.7
1979	22.4	25.2	-10.0	13.2
1980	-71.0	122.8	9.0	42.1
1981	-8.8	48.4	4.5	24.8
1982	-12.2	57.4	-0.2	23.5
1983	3.8	7.2	17.0	0.4
1984	60.1	-36.8	-5.4	0.1
1985	-1.2	44.7	-1.3	19.0
1986	-1.4	6.3	6.0	4.1
1987	-3.4	22.5	1.9	14.0
1988	-15.4	43.2	1.9	-3.1
1989	-7.0	4.2	1.8	-5.9
1990	11.2	2.4	11.3	7.0
1991	20.5	12.5	-6.4	4.5

Until recently the ability of the Central Bank to control its net domestic assets was extremely limited due to heavy borrowings by the government from the Central Bank. This was largely due to the fact that the money and capital markets in Sri Lanka, owing to its underdeveloped nature, did not provide considerable scope for government borrowings. Following some improvements in the money market and the financial system in recent years, the Central Bank has been able to engage in open market operations more effectively, thereby influencing reserve money through net domestic assets.

As shown in Table 6.1, net claims on government was a major contributory factor to reserve money growth in 1979-82. These claims declined in 1983 and 1984 reflecting an improved fiscal situation with the export boom.

Open market operations helped to contain reserve money growth in 1986 and 1987 despite the continued widening of the domestic financing of the budget deficit. The rate of increase of reserve money fell from an annual average of 21.3 per cent in 1980-85 to 6.6 per cent in 1986-87. However, the Central Bank's attempt to control reserve money growth was nullified in 1988 due to a doubling of the domestic financing needs of the government which resulted in a 33 per cent increase in reserve money.

Since 1989 the Central Bank has regulated reserve money effectively through intensified sales of Treasury Bills to the non-bank sector. These measures helped to contain net claims on government and had a favourable impact on reserve money

growth. The Central Bank was able to restrict the reserve money growth to 4.8 per cent in 1989 which was 32.6 per cent in the previous year. This was largely an outcome of the decline in the growth of net claims on government in 1989. These claims rose by Rs. 4.0 billion and Rs. 8.3 billion in 1987 and 1988 respectively. The increase was only Rs. 1.1 billion in 1989 and 0.6 billion in 1990. Accordingly, the positive impact of the government sector on reserve money had fallen since 1989. The increase in net claims on government as a ratio of the stock of money at the beginning of the year was only 4.2 per cent in 1989 and 2.4 per cent in 1990. In comparison the ratio was high as 22.5 per cent in 1987 and 43.2 per cent in 1988.

By the end of November 1991, net claims on government rose by Rs. 3.9 billion during the year showing an increase over the previous 2 years. This had resulted from an increase in the budget deficit. As a consequence, the fiscal sector had a larger positive impact on reserve money in 1991, as compared with the two previous years; net claims on government in 1991 as a percentage of reserve money at the beginning of the year was 12.5 per cent. This is smaller than the massive fiscal impact experienced in 1988. It should be emphasised here that the expansionary fiscal impact in 1991 occurred despite the Central Bank's efforts to mobilise financial resources to bridge the fiscal deficit through open market operations. This shows that prudent management of the government budget is essential for effective monetary policy.

7. RESERVE REQUIREMENTS

Changes in reserve requirements affect the money multiplier by influencing commercial banks' reserves with the Central Bank. The Central Bank has used this instrument intensively since 1981 (Table 7.1). In order to contain the credit creating capacity of commercial banks so as to reduce their overall liquidity, the reserve ratio on demand deposits was raised from 12 to 14 per cent and the ratio on time and savings deposits from 5 to 6 per cent with effect from 19th June 1981. This tended to raise the commercial banks' reserves with the Central Bank. These measures were further intensified with effect from 2nd December 1983 by raising the reserve ratio on demand deposits to 16 per cent and the ratio on time and savings deposits to 8 per cent. Unutilised balances of allowed overdrafts were also subject to a reserve ratio of 16 per cent in December 1983.

A new structure of reserve ratios was introduced in 1985. Accordingly, different reserve ratios were specified for each type of deposit varying from 10 to 18 per cent.

Table 7.1
Statutory Reserve Ratios

Effective date	Type of Liability	Revised Rate%
1960.08.26	Demand deposits	12
	Time & Savings deposits	05
1981.06.19	Demand deposits	14
	Time & Savings deposits	06
1983.12.02	Demand deposits	16
	Time & Savings deposits	08
1983.12.16	Unutilized balances of allowed overdrafts	16
1985.03.09	Demand deposits	18
	Time deposits (not exceeding 90 days)	12
	Time deposits (exceeding 90 days)	10
	Savings deposits	10
	Special deposits	10
	Unutilized balances of overdrafts	16
1985.09.13	Time deposits (not exceeding 90 days)	14
1987.06.05	Un-used balances of overdrafts	0
1987.08.07	Demand, time & savings deposits	10
1988.02.26	Demand, time & savings deposits	13
1988 09.16	Demand, time & savings deposits	15
1991.01.11	Demand, time & savings deposits	13

Source: Central Bank of Sri Lanka

In order to meet the funding needs arising from increased economic activities, particularly in the private sector, it was realised that it would be necessary to allow commercial banks to increase their lending. This relaxation was achieved mainly through a downward revision of reserve requirements and an increase in Central Bank accommodation. Thus, in 1987 the structure of statutory reserve ratios was simplified and an uniform ratio of 10 per cent was introduced on demand, time and savings deposits. Meanwhile, the reserve requirement for unused overdrafts was abolished. The reserve ratio was raised gradually to 15 per cent in 1988 and it was reduced to 13 per cent in 1991.

8. CREDIT CEILINGS AND MARGIN REQUIREMENTS

The Central Bank can impose portfolio constraints on commercial banks through these two direct instruments. As explained in the previous sections, the Central Bank has shifted to market based monetary controls in recent years. However, such controls were inadequate to deal with excess liquidity in the economy in certain periods. In such instances, credit ceilings and margin requirements were used to control bank lending.

In order to arrest domestic credit growth, this type of controls were reintroduced in 1989. Accordingly, commercial bank credit to non priority sectors were not to exceed the level that prevailed as at end of May 1989. Also, a 100 per cent LC margin requirement for specified imports was imposed in June 1989.

9. SUPPORTING POLICY MEASURES

It was necessary to establish certain new procedures with regard to the operating framework of the financial system so as to enable the monetary authorities to function more effectively. Since the administrative controls and other constraints in the financial system were removed, there was a need to strengthen the monitoring of banking and other financial institutions to safegurd their stability. As regards policy formulation, there was also a need to coordinate the main macro variables and for these purposes, certain regulatory rules and coordinating procedures have been introduced in addition to the monetary policy measures.

Among them were rules pertaining to the operations of commercial banks and other financial institutions and these were necessary with the withdrawal of the earlier controls. With the abolition of direct regulation of banks' activities and increasing competition among banks, the banking sector and particularly the state banks began to face several problems which included non-performing advances, high intermediation costs, debt recovery and credit delivery to the rural sector.[1]

In an effort to deal with these problems the supervision of commercial banks by the Central Bank has been strengthened under the Banking Act No. 30 of 1978. These include the stipulation

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[1] These problems were examined by a working committee on the State Banks (1989). This type of problems are common to many developing countries. See World Development Report (1989) for a detailed account on this subject.

of minimum capital funds and liquidity ratios, imposition of limits on lending to a single borrower, placing of limitations on lending to Directors or Directors' interests and imposition of restrictions on shareholdings. Part V of the Banking Act made it mandatory for commercial banks to present their annual statements on the basis of a standard accounting format. In addition, the Central Bank issued a set of guidelines in February 1991 relating to the suspension of interest on non-performing loans and classification of advances for provisioning purposes.

In the second half of the 1980's, several finance companies underwent financial difficulties for a variety of reasons. It was felt that this crisis was partly due to the lack of proper supervision. Therefore, a decision was taken to grant more powers to monetary authorities to prevent such failures. The Central Bank has been empowered to regulate non-bank financial institutions under the Finance Companies Act No. 78 of 1988. The Monetary Board is authorised to appoint an officer of the Central Bank as its representative to every finance company for the purpose of monitoring the affairs of a company. In terms of the Finance Companies Act, with effect from 18th December 1988, only public companies registered by the Monetary Board are permitted to conduct finance business. Other finance companies were required to terminate their business within a specified period.

Another significant feature is the attempts that have been made to maintain compatibility between monetary policy and the other macroeconomic

policies. For instance, measures have been taken to streamline the economic management process by setting up several committees in 1991; they are the Fiscal and Budgetary Policy Review Committee, Monetary Policy Review Committee and Monetary Operations Unit.[1] Similar coordination is evident with reference to balance of payments and exchange rate management.

10. CONCLUSION

In line with the developments in the money and capital markets, the monetary authorities have been able, to a certain extent, to deviate from direct monetary policy measures and to use market based policy instruments. The reformulated monetary policies had significant effects on both the money multiplier and reserve money. The recent reform in the financial sector provided an impetus to the public to increase its savings, mainly in the form of bank deposits. This resulted in a decline in the public's preference to hold cash. Apart from the public's holdings of cash balances, the money multiplier is also affected by commercial banks' reserves against their liabilities. The Central Bank has increasingly used the reserve requirements to regulate this component of the money multiplier.

Sri Lanka has also experienced a break-through in the conduct of reserve money management. Until recently, the monetary authorities were unable to use market based instruments (mainly open market operations) as a monetary policy tool due to deficiencies in the money market. Elimination of direct

[1] For a description of these committees, see Hettiarachchi (1990).

monetary controls coupled with the recent financial sector reforms have helped to expand the money and capital markets to a certain extent enabling the monetary authorities to use indirect policy measures. For instance, interest rate liberalisation led to attractive rates of return for savings. The expansion of the money market through these liberalisation measures has provided an opportunity to the Central Bank to sell and purchase securities, particularly Treasury Bills, to regulate its own balance sheet and, in turn, to influence the overall liquidity of the economy. In an effort to strengthen these monetary controls, the Central Bank has also initiated to phase out the refinance schemes.

Although the monetary controls have been shifted gradually towards market-based instruments, certain direct controls are still in operation. These include margin requirements and credit ceilings. As explained earlier, a disadvantage of such types of monetary controls is that they are likely to lead to misallocation of resources.

Another major limitation in the conduct of current monetary policy within a market-based framework is the undue monetary expansion resulting from continuing budget deficits. This is a common problem encountered by many developing countries. This calls for a proper coordination of fiscal and monetary policies, taking into account the periodic trends in key variables such as economic growth, domestic and foreign inflation, balance of payments and savings-investment gap. The experience of Sri Lanka, as in the case of most developing countries, has also

revealed that continued adoption of an appropriate fiscal and monetary policy mix in the context of overall macroeconomic policies is essential to materialise any positive effects of economic liberalisation.

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