1.1 MONETARY MANAGEMENT: A GENERAL FRAMEWORK

Monetary policy is essentially an instrument for stabilizing the behaviour of such crucial variables as the interest rates, the general price level, the external value of the currency and the balance of payments. The emphasis on a particular objective may change from time to time depending upon the circumstances. All the objectives of monetary policy can be attained if the monetary policy succeeds in balancing the supply of money with the demand for money at any particular time. Any miscalculation about the demand for money by the monetary authorities can create a number of complications such as distortion of saving and investment patterns and income distribution and balance of payments problems. An adjustment of the pace of monetary expansion in accordance with the constantly changing requirements of the economy is the essence of monetary management. The objectives of monetary policy in India, in a broader sense, are in consonance with the national development strategy as articulated in the successive Five Year Plans. Due to the persistent inflation in India the fundamental objective of monetary policy has been to maintain price stability and channelling of credit into productive sectors.

Economists believe that the linkage between changes in monetary policy and the resultant change in aggregate spending is not a direct one. Some believe that monetary policy is linked to
the real sector primarily through interest rates. An increase in interest rates is assumed to reduce investment spending as well as consumption spending. But the proponents of the cost of money theories acknowledge that the interest rate cost is often only a small fraction of the total cost of a good or service. Therefore, the impact of a change in the interest rate on money spending decisions is insignificant. Other economists believe that a change in monetary conditions affects commercial banks ability to lend. The commercial banks ability to lend influences the amount of consumption expenditure and investment spending that can be financial and, therefore, influences the level of aggregate money income. Commercial banks may or may not adjust quickly to changes in monetary policy, depending upon their current reserve condition, interest rate expectations, loan demands etc. Therefore, the longer the delay by commercial banks in making portfolio adjustments, the longer are the lags in monetary policy.

The changes in the monetary policy stimulate the economy only after some time lag. There are basically three types of lag. First is the “recognition lag” which refers to the lag between the time at which a monetary policy action becomes necessary and the time at which the monetary authorities become aware that action is necessary. This lag, is related to the problems of getting up-to-date information on the state of the economy and the forecasting. The second type is “action lag” which refers to the time between recognition of the need for action and the actual carrying out of that action. The sum of the recognition lag and the action lag is called the “inside lag”. The third type is called “outside lag” which refers to the time between the taking of a monetary policy action and its effect on the real variables such as output and employment.
etc. The causes of the outside lag are difficult to analyse because they involve the complex inter-relationships in the way the economy works. However, "monetary policy as an instrument of economic policy has certain advantages, "inside lag" which refers to the lag between the time action is needed and the time the action is actually taken is shorter in the case of monetary policy than in case of fiscal policy. Monetary policy changes, unlike the changes in fiscal policy can and do occur at any time during a year." 

Since the choice of monetary policy instruments for regulating the money supply depends on the definition of money, the process by which the supply of money is created and the influence of money on output and prices. Therefore, it is necessary to look at the views of the Working Groups on Money Supply appointed by the Reserve Bank of India. The First Working Group on Money Supply set up by the Reserve Bank of India in 1961 provided the framework for the definition and analysis of money supply in India. The Second Working Group on Money supply was set up by the RBI in 1977 with the three fold objective of: (i) examining the suitability of the various concepts and definitions of money supply with a view to adapting them to the Indian monetary data, to facilitate more meaningful analysis and policy formulation; (ii) suggesting methodological changes in compilation of money supply data; and (iii) preparing a revised time series of monetary data, in the light of the examination of the various issues involved. The Report has identified four measures of money stock viz. M1, M2, M3 and M4. The main characteristics which separate one measure from the other is the varying degree of its liquidity, the measures being specified in the descending order of liquidity.
M1 (Money Supply with the Public or Narrow Money) Consists of:
(i) Currency notes and coins with the public, excluding cash in hand of all banks;
(ii) Demand deposits (excluding interbank deposits) of all commercial and cooperative banks; and
(iii) 'other deposits' held with the Reserve Bank of India (excluding balances in Account No. 1 of the International Monetary Fund, the RBI Employees' Pension, Provident and Guarantee Funds and adhoc liability items which arise from time to time).

M2 Consists of:
(i) M1; and
(ii) Savings deposits with Post Office Savings Banks.

M3 (Aggregate Monetary Resources or Broad Money) consists of:
(i) M1; and
(ii) Time deposits of all commercial and cooperative banks (excluding interbank time deposits).

M4 Consists of:
(i) M3; and
(ii) Total deposits with the Post Office Savings Organisation (excluding National Savings Certificates).

This distinction between the Narrow Money (M1) and Broad Money (M3) created disagreement among the economists regarding the acceptability criteria of money multiplier theory as a major
tool of money supply analysis and control in India. According to money multiplier theory “the total expansion of money supply depends on the creation of high powered money (reserve money) and the multiplier acting upon it”\textsuperscript{6}. The equation $Ms = m H$ represents the relationship between supply of money in nominal terms ($Ms$) money multiplier ($m$) and high powered money ($H$). Reserve money in India is the sum total of net RBI Credit to Government, RBI credit to Banks, RBI credit to Commercial Sector, net foreign exchange assets of RBI, Government’s currency liabilities to the public minus net nonmonetary liabilities of RBI.

In the money multiplier theory the determinants of money supply are money multiplier ($m$) and high powered money ($H$). If $m$ is considered as constant then $H$ is left out to be the only major determinant of variations in money supply. With the above condition it is necessary and sufficient to control $H$ in order to control money supply. But according to Bhole, “it would not be in the interests of the effectiveness of monetary policy to depend on the narrow money multiplier framework for controlling money supply variations in India the regulation of Government market borrowings, deficit financing, foreign exchange assets, and availability of bank credit by fiscal and monetary authorities would have a high degree of success in controlling money supply\textsuperscript{7}.

\textbf{1.2 THE INSTRUMENT OF MONETARY CONTROL IN INDIA}

Credit control is the principal means by which the Reserve Bank of India fulfills the objectives of monetary management. Traditionally, the instruments of credit control are divided into two categories: quantitative and qualitative. Quantitative techniques are designed to affect the liquidity in the
economy by acting on the quantum of bank reserves. Qualitative techniques on the other hand aim to regulate the bank resources to particular sectors of the economy in accordance with broad national priorities. Following are the major instruments of monetary control used by Reserve Bank of India:

Cash Reserve Ratio (CRR):

Scheduled banks are required by law to deposit a certain percentage of their total demand and time liabilities with the Reserve Bank of India. Changes in CRR operate directly and immediately by affecting the quantum of loanable resources with banks and affecting their credit creating capacity. A rise in the CRR restricts the banks lending operations while a fall can encourage them to advance more credit.

Statutory Liquidity Ratio (SLR)\(^8\):

SLR is another tool of credit control. Commercial banks are required under the Banking Regulation Act 1949 to maintain, at the close of business every day, a minimum proportion of their total demand and time liabilities in India as liquid assets in the form of cash, gold and unencumbered approved securities. The ratio of liquid assets to demand and time liabilities in India is known as the Statutory Liquidity Ratio (SLR). The SLR is also defined as follows:

\[
SLR = \frac{(ER + I + CB)}{L}
\]

where \(ER\) = Excess reserves

\(I\) = Investment in unencumbered government and other approved securities.

\(CB\) = current account balances with other bank.
L = total demand and time liabilities.

Open Market Operations:

Open market operations refer to the purchase and sale by the Central Bank of a variety of assets such as government securities, commercial bills of exchange, foreign exchange, gold and even company shares. The Reserve Bank of India, however, performs its operations only in the Central Government securities. Open market purchase increases high powered money by an equal amount, similarly open market sale reduces high powered money.

Bank Rate:

According to the Reserve Bank of India Act, the Bank Rate is the standard rate at which the Reserve Bank is prepared to buy or rediscount bills of exchange or other commercial paper eligible for purchase under the provisions of the Act. With any change in the Bank Rate, similar changes take place in the entire interest rate structure of the banking system. A rise in the Bank Rate restricts the volume of credit whereas a reduction in the Bank Rate encourages credit expansion. Due to the lack of a well-developed and properly organised bill market, the Bank Rate in India is essentially the rate at which the Reserve Bank of India provides credit to commercial banks. The Differential Rate of Interest Scheme is also introduced by the RBI in 1972. Under this scheme the commercial banks are asked to finance certain specified productive activities undertaken by economically and socially backward classes of people and socio-welfare organisations at the low rate of interest of 4 per cent per annum.
Selective Credit Control:

Selective Credit Control is usually applied to prevent speculative hoarding, with the help of bank credit, of certain essential commodities like food grains and basic raw materials to check an undue rise in their prices. The Reserve Bank of India uses the following three main instruments of Selective Credit Control: (i) minimum margin for lending against the value of specified securities, (ii) ceilings on the levels of credit and (iii) charging of minimum rate of interest on advances against specified commodities. The first two instruments control the quantum of credit and the third has a bearing on the cost of credit.

Moral Suasion:

Moral Suasion is a mix of persuasion and pressures used by the RBI on the desirable expansion of bank credit, loan priorities, maintenance of liquid assets etc.

1.3 BALANCE OF PAYMENTS PROBLEMS OF INDIA

It is a well known fact that since independence, India’s balance of trade has shown an adverse trend with the exception of the years 1972-73 and 1976-77 when there were some surpluses on this account. The effects of this trade gap on the balance of payments position has been adverse and increasingly disturbing. During the last few years India’s international trade has undergone considerable changes with regard to its composition, direction and volume. At the same time India has, for long, been facing problems in connection with her share in total world exports, prices of her exports, her terms of trade, increasing debt burden and shrinking of foreign aid etc. India’s balance of payments problems can be seen under the
heads of; (i) Merchandise trade account, (ii) Invisibles and Services (iii) Long-term capital flows, (iv) Debt servicing problems and (v) Foreign exchange shortage.

(i) Merchandise Trade Account:

India's imports have always been in excess of exports except for the year 1976-77 when there was a surplus of Rs. 316.2 crores. The mounting import bill for oil purchases, especially after the two oil price hikes in 1973-74 and 1979-80 respectively, has also led to increasing deficits in balance of trade position of India. The trade deficit of India during 1980-81 - 1984-85 rose to over Rs. 30456 crores which has seriously aggravated the balance of payments problem.

(ii) Invisibles and Services:

India's invisible account was in surplus during the period 1960-61 - 1965-66 mainly due to exchange control regulations on payments and also net receipts on transfer payments both private and official. But this was followed by deficits during the years 1966-67, 1967-68, 1969-70, 1970-71 and 1972-73 mainly on account of net payment on investment income. But from 1972-73 onwards there was surplus on invisibles account, mainly due to surplus in the net receipts on items like travel, insurance and private transfer payments. Even with surplus on invisibles account it has not been possible for India to match the deficit in trade account so as to bring the current account into balance. This has been mainly due to the fact that deficit in merchandise trade account has increased at a much faster pace than the surplus on invisibles.
(iii) Long-Term Capital Flows:

Long-term capital inflow is not substantial enough to match the foreign capital requirements of India.

(iv) Debt-Servicing Problems:

The total volume of India's international debt has mounted. Total debt servicing consisting of amortisation and interest payments also assumed significant proportions after the middle of the sixties. Debt servicing charges on external borrowing from all sources have risen as percentage of export earnings from 8.5 per cent in 1979-80 to 12.1 per cent in 1984-85.

(v) Foreign Exchange Shortage:

The level of foreign exchange reserves played a major role in framing trade policies. But India experienced a continuous shortage of foreign-exchange reserves. The years 1961-62, 1962-63, 1964-65, 1970-71, 1980-81 and 1981-82 were particularly critical in this regard. From the early seventies the foreign exchange reserve position of India improved. Foreign exchange reserves which fell from the peak of 5933.72 crores of rupees in 1979-80 to 4023.56 crores of rupees in 1981-82, i.e. by 32.2 per cent over the two years, steadily rose in the next three years, and stood at 7243.06 crores of rupees in 1984-85.

1.4 BALANCE OF PAYMENTS ADJUSTMENT POLICIES

Adjustment Policy, in general, endeavours to exert its effect on balance of payments by influencing a number of key variables like relative prices, output and expenditure, national income and the supply of money. There are basically two alternative
courses of action to remove the balance of payments deficit. The first is to finance the balance of payments deficit either by running down domestically held international reserves or by international borrowing. The second is to correct the deficit through the pursuit of appropriate balance of payments adjustment policies. It may be noted that financing and adjustment are not mutually exclusive and it is likely that a combination of financing and adjustment policies will be pursued. However, in the process of adjustment, exchange-rate depreciation or devaluation of the currency may be used. It is generally believed that a depreciating currency helps in expanding exports and contracting imports, thereby improving the balance of trade position of the country concerned. This is because when the value of the domestic currency in terms of foreign currency goes down, the exporters from the devaluing country find that it is more profitable to export, earn in foreign currency and convert it into larger amount of domestic currency. Besides, foreigners find it attractive to buy more goods because foreign currency now commands more of devalued currency, and prices remaining unchanged or not rising to the full value of devaluation, they can get more goods than before. On the import side, domestic purchasers will have to pay more for imports in terms of domestic currency and this is expected to reduce the demand for imported goods.

Although devaluation as an effective adjustment policy is preferable but the argument against it in the Indian context, is that since most of India’s exports have relatively inelastic demand in the international market, foreign exchange earnings from exports will not improve. Further the domestic cost of essential imports of capital goods and intermediate goods will go up leading to higher cost of
production in export industries, in particular, and a higher rate of general inflation.

Since transactions between domestic and foreign residents involve money flowing in exchange for goods and services. The balance of payments adjustment in a deficit situation requires an increase in receipts relative to payments. A relative reduction in payments implies a reduction in the domestic absorption of goods relative to the production of goods. Since production cannot be increased in the short-run, therefore, adjustment will involve an absolute reduction in real domestic expenditure on domestic and foreign goods. A reduction in domestic expenditure may be achieved by means of pursuing a range of 'expenditure reducing' policies, such as contractionary monetary and fiscal policies.

1.5 OBJECTIVE OF THE STUDY

The relevance of the structuralist versus monetarist approach to the balance of payments has been an extensively explored theme of discussion among the economists throughout the world particularly due to persistent rise in the price level and deterioration in the balance of payments of the developing countries. The empirical works of both the schools of thought about the causes of balance of payments problems have failed to throw conclusive evidence. According to structuralists, the agricultural, fiscal and foreign trade sectors are suffering from institutional rigidities which in one way or another is leading to high rates of inflation and deterioration in the balance of payments. On the other hand, monetarists argue that the balance of payments as a whole may be considered as a monetary phenomenon. In monetary terms, a balance of payments deficit may be seen as an indication of an excessive
real supply of money relative to demand. Creation of money at a rate faster than the rate at which real domestic output is increasing tends to cause inflation, and tends to generate a balance of payments deficit. The monetarist model of the balance of payments concludes that payment disequilibrium on exchange rate volatility are solely monetary in cause and are therefore the result of inappropriate domestic monetary policies. Against this background, the objective of the present study is to discern the line of reasoning and approach behind the course of monetary management which have had bearing on India's balance of payments position. More precisely, we shall test the following hypothesis:

Metary management has exerted significant influence on the India's balance of payments.

1.6 LIMITATIONS OF THE STUDY:

This study has some limitations mainly owing to the absence of a consistent and comparable series on monetary aggregates for the period under study. Two breaks in the series could be identified, one in 1970 and the other in 1978. Due to widening the coverage of monetary statistics pursuant to the recommendations of the Second Working Group of Money Supply, the figures of money stock measures for the period after 1970 are not comparable with the earlier series. Similarly, because of change in method of apportioning of saving bank deposits into demand and time liabilities series on Money Supply($M_1$) compiled for the period subsequent to March 1978 are not comparable with that for the period 1970 to 1978.

It may be noted that Money and International Trade constitute a vast and dynamic field of study. Therefore, despite all
efforts to make this study up to date, comprehensive and analytical deficiencies are bound to remain.

1.7 METHODOLOGY AND SOURCES OF DATA

In order to identify and analyse the important factors which have contributed to the fluctuations in the price level, demand for money, reserve flow, sterilisation and various components of the balance of payments simple and multiple regression models are resorted. To estimate the equations we have used time series data for the period 1960-61 – 1985-86. We selected this period obviously because it has been the most crucial period in the field of Money, Banking and International Trade of India. The basic data are taken from the various issues of the Reserve Bank of India publications like the RBI Bulletin, Annual Reports and Reports on Currency and Finance. Also from Economic Survey of Government of India, National Accounts statistics of CSO, International Financial Statistics of IMF and UNCTAD Handbook of International Trade and Development Statistics (New York: United Nations).

It may be noted that the specification of the equations used in this study have been drawn from the studies of Mohsin Khan (1974), Sohrabuddin (1985), Sundararajan (1986), Kannan (1989) and Raghavan and Saggar (1989) with slight variation. The model has both linear and log-linear equations. The behavioural equations are estimated by the method of ordinary least squares (OLS). Significance of the estimates has been tested at 5 percent level. The suitability of the equations is examined through economic criteria like the appropriateness of the sign and the magnitude of the regression coefficient and statistical criteria like coefficient of determination adjusted for degrees of freedom ($R^2$), Durbin-Watson Statistic (DW),
Standard Error of Estimate (SEE), F-value and t-values of the regression coefficients.

1.8 PLAN OF THE STUDY

The plan of the study is as follows:

Chapter 2 discusses the monetary management in India. Chapter 3 presents an analysis of nature and determinants of India's Balance of Payments. Chapter 4 presents an econometric model of India's Balance of Payments, 1960-61 to 1985-86. Chapter 5 analyses the relevance of monetary approach to balance of payments theory in the Indian case through an econometric study. Finally chapter 6 gives a summary and the main conclusions of the study.

REFERENCES


6. Functions and Working, Reserve Bank of India, Bombay, 1983, p.44.
