Chapter Six

Concluding Observations and Policy Recommendations
CHAPTER VI

CONCLUDING OBSERVATIONS AND POLICY RECOMMENDATIONS

Concluding Observations

This chapter is devoted to concluding observations and policy recommendations. In chapter I, we have discussed in some detail about the fiscal and monetary structures. Behaviour of some of the crucial fiscal variables such as Government Expenditures, Tax Revenues, National Debt and Deficit etc., is examined both at the central and state levels. Our analysis has revealed that Government Expenditure has shown continuous upward trend during the entire period and each component of expenditure has behaved in the same manner. Expenditure variable expressed as percentage of National Income or any other form clearly indicated tendencies to move upward.

Account is also taken of Revenue Receipts and sources of revenue. It was observed that Revenue Receipts have invariably lagged behind expenditure in all the years ranging from 1970 to 1995. Aggregate Revenues expressed as proportion of National Income has clearly indicated increasing trend but in relation to expenditure it has lagged behind in all these years without any exception. We have also taken note of domestic debt and its behaviour over the period from 1970 to 1995. Our analysis of domestic debt has revealed very vividly that its level and annual
changes in it are considerable and annual variations in the domestic
debt are more or less equal to size of deficit. In fact National Debt
formed a sizeable proportion of National Income and Deficit. Looking
at the deficit figure we found that in almost all these years there
was a spectacular growth of deficit. It was moderate during 1970's
but it became more alarming since 1980 and 1990's. We have also
traced many factors operating on mounting deficit year after year,
and we observed that large part of uncovered deficit was financed
by issuing debt claims by Governments. These debt claims were
being held by the Central Monetary Authority i.e. Reserve Bank of
India. Thus close proximity between Fiscal and Monetary authority
was observed.

This chapter also looks into monetary structure,
institutional conditions, Growth of Commercial Banks' Branches and
other financial institutions which have occupied pivotal place in the
India's Monetary Structure. Our analysis revealed that Aggregate
Monetary Resources (A.M.R.) have increased much faster and
among the components of A.M.R., the Time Deposits have increased
much faster than the Demand Deposits. Currency to total deposits
ratio has gone down substantially. Growth of deposit money clearly
indicates increasing tendency towards financial intermediation by
banking system. Based on the analysis of fiscal and monetary
variables we have drawn an inference that fiscal and monetary
structures have been conducive for further analysis.

In Chapter II we have presented review of literature on
the subject and related aspects. In fact there is no dearth of
literature in the form of books, periodicals and journals on the subject of our interest. This review of literature and critical examination of some of the studies on the fiscal and monetary aspects clearly indicate the need for undertaking comprehensive study. But whatever studies we came across were on specific aspects and were not well integrated into a some kind of a system. There were no theoretical and empirical underpinning provided by most of these studies and very little empirical effort was done into the examination of structural relationship comprehensively. This chapter also incorporates other important aspects of our study such as hypothesis to be tested and methodology to be used. In a way this chapter is basic to our subsequent analysis.

Chapter III has been devoted to the theoretical foundation of Debt Management and Fiscal Operations. Number of studies have been quoted and a brief account of arguments on the burden of public debt have been examined. Authors have stressed on the need to probe much deeper into the problems of debt burden and this issue has been conclusively settled.

We have also taken account of the public internal debt situation in India. Its growth rate, various components ownership pattern of domestic debt etc. have been dealt with in this chapter.

As we have stated earlier there is an urgent need to undertake comprehensive and integrated empirical study of debt management and fiscal operations of Government in the context of the role played by Central Monetary Authority. With this aim we
have devoted chapter IV and chapter V to the empirical analysis using well known statistical technique namely Regression and Correlation. As we have stated before the chief attribute of this technique is that it not only shows how two variables are related, but it also evolves us to predict precisely the value of dependent variable and its direction on the basis of given change in the independent or explanatory variable.

In chapter IV short run approach has been adopted to examine relationships among structural variables. Entire Time Series Data are broken down into each short period so as to capture short run effects of a change in explanatory variable on the dependent variable. Our Time Series Data from 1970 to 1995 is divided into 1970 to 1980, 1981 to 1990 and 1985 to 1995.

In each period we have tried to examine various hypothesis. Firstly we have tried to examine Net R.B.I. Credit to Government and National Internal Debt. Regression models are set-up and empirical results are obtained. These results strongly support our contention that during 1970 to 1980 National Debt has statistically strongly and positively influenced the level of R.B.I. Net Credit to Government. Regression co-efficient of N.D. variable is significant and it indicates close proximity between N.D. and N.R.B.I.G variable.

In another short period from 1981 to 1990 we found that strong connection existed between N.D. and N.R.B.I.G. Hardly 1% variance of the N.R.B.I.G. remained unexplained. D.W.
statistics gave clear indication of absence of auto-correlation among residuals.

We have also tried to see what statistical connection exists between N.D. and N.R.B.I.G. during 1985 to 1995. Regression estimates gave strong support to our contention that large part of R.B.I. Credit to Government is strongly influenced by the level of Domestic National Debt.

Our empirical findings for each short period mentioned above made it amply clear that not only the level but changes in N.R.B.I.G. are statistically strongly related to Domestic (Internal) Debt. Best relationship we have observed between N.D. and C.N.R.B.I.G. variables during 1981 to 1990. During this period 96% variations in the C.N.R.B.I.G. are explained by N.D. variable. Regression co-efficient of N.D. variable is significant in terms of test of individual parameter and it came with the expected positive sign.

The only period from 1985 to 1995 has shown distorted results. Regression estimates for this period have shown insignificant influence of N.D. on C.N.R.B.I.G. This was expected because this is the period which coincided with many Monetary and Fiscal changes. Also structural reforms were initiated during the same period.

We have also tried to examine the influence of deficit (G-R) on the N.R.B.I.G. during each short period. We found that deficit
variable had statistically strong influence on the dependent variable i.e. N.R.B.I.G. during each short period. We have found that deficit variable has statistically strong influence on the dependent variable namely N.R.B.I.G. Moreover D.W. statistics in each period revealed no auto-correlation among residuals and value of $R^2$ is satisfactory. In fact during 1981 to 1990 about 95% of variations in the N.R.B.I.G. were explained by "deficit" and even in the period from 1985 to 1995 not less than 88% of variations in N.R.B.I.G were explained by G-R variable.

This regression analysis undertaken for each short period gave ample support to our contention that increase in the budgetary deficit would have caused R.B.I. to grant more credit to Government or it would have induced Government to hold more debt claims. Strong statistical connections are observed in each period between R.B.I role in granting credit to Government and to fill up the deficit.

During each short period we have found that not only the level of N.R.B.I.G. but annual changes in it i.e. C.N.R.B.I.G. are also influenced by deficit. And in each short period, regression coefficients of "G" and "R" variables appeared with the expected positive sign for "G" and negative sign for "R" variable respectively. It is true that co-efficients measured by test of individual parameter are only significant in the last short period from 1985 to 1995. We found that only 32% variations in C.N.R.B.I.G. are explained jointly by "G" and "R" fiscal variables. It was a period of disturbances and adjustment. Hence poor response is observed.
We have also examined the behaviour of Tax Revenue assuming it to be an endogenous variable. We have found statistically strong positive correspondence between "R" and N.I. variables. In each short period Regression co-efficient was highly significant and positive. This revealed that despite considerable evasion and avoidance of taxes in India, National Income has strong influence on the Tax Revenue, given the tax rates.

Since "R" and N.I. have close correspondence, we substituted N.I. variable for "R" and examined the influence of "G" and N.I. on the level and changes in the N.R.B.I.G. We found that in each short period N.I. variable had positive influence on the level and changes in the N.R.B.I.G. variable which was unexpected. But "G" variable was significantly positive in each short period, which was very much expected. Only during 1985 to 1995 coefficient of N.I. was insignificant statistically which was expected. During the same period hardly 54% variable of C.N.R.B.I.G. were explained by "G" and N.I. variables. Thus our regression analysis clearly reveals that period from 1985 to 1995 was characterised by structural, fiscal and monetary changes which might have prevented adjustment among many fiscal and monetary variables.

In this chapter we have also examined the influence of N.R.B.I.G on Reserve Money or High Powered Money which is the strongest and proximate determinant of Money Supply (M3). Regression results of each short period have shown that Reserve Money (R.M.) is statistically strongly influenced by N.R.B.I.G. Thus debt holding operations were chiefly responsible for considerable

In view of the fact that R.M. is strongly sensitive to N.R.B.I.G. we have tried to examined influence of R.M. on Money Supply\(^1\) (M3). Regression estimates of each short period lands ample support to our contention that large part of changes in M3 have been due to R.M. Even during 1985 to 1995 about 98% variations in M3 were explained by R.M. variable, given the value of money multiplier. Regression co-efficient of R.M. is found to be highly significant and it has appeared with the expected positive sign. No auto-correlation among residuals is found during each short period. Thus each short run estimate of M3 is found to be unbiased. The conclusion emerges that the R.B.I. debt holding operations (or its credit to Government) has positively influenced stock of money in our economy, of course through its effects on monetary base. Thus it follows that if money supply is to be controlled and managed, and monetary policy is to be made more effective, the R.B.I debt holding has to be adjusted to required stock of money. Debt management has become most crucial for monetary and price stability in India.

Chapter V is entirely devoted to long run approach. It was strongly contended that time factor would facilitate monetary and fiscal adjustments. The significance of long run analysis is also derived from the fact that some variable operate with a substantial time lags. Hence we have resorted to regression technique to assess
the impact of some of the fiscal and monetary variables on the system evolved considering period from 1970 to 1995 which we consider to be sufficiently long enough to permit smooth adjustment among variables involved.

Regression estimates of N.R.B.I.G. on N.D. for 1970-95 revealed close correspondence between them. During the same period domestic debt has changed which is more or less equal to deficit. Thus we found deficit to be statistically strongly correlated with the R.B.I. debt holding or its net credit to Government.

We also found that each fiscal variable such as "G" i.e. The Government need for internal finance and "R" i.e. Revenue receipts have exerted influence on N.R.B.I.G. and C.N.R.B.I.G. revenue appeared to be endogenous variable and it is sensitive to level and changes in the National Income in the long run.

Regression estimate also revealed that N.I. has strong negative influence on N.R.B.I.G. and "G" has strong positive influence on it. Our long run analysis strongly supports our contention that the R.B.I.'s entire behaviour is endogenous and it is strongly influenced by fiscal operations, namely deficit and domestic national debt.

We conclude by making following observations based on our findings:

(1) National Debt (Internal) has strong positive impact on the R.B.I. debt holding operations.
(2) Domestic Debt and Deficit have moved together and were congruent

(3) The R.B.I. Credit to Government is statistically strongly and positively influenced by deficit.

(4) Fiscal policy has strong influence on the behaviour of the R.B.I. particularly in its debt holding operations.

(5) Fiscal and Monetary policies are intertwined in Indian context.

**Policy Recommendations for Macro Economic Stabilisation**

Based on our findings we would like to make following policy recommendations for Macro Economic Stabilisation.

(1) In view of the fact that Internal Debt has strong positive influence on the behaviour of Monetary Authority i.e. Reserve Bank of India. We suggest that it would be most desirable if large part of debts are being held by commercial banks or non-banking public. This requires deregulation of Interest Rates offered on claims issued by Government. Higher return on these claims would make them more attractive to holders and it would reduce the R.B.I. obligations to hold them.

(2) Fiscal deficit has strong positive influence on the Monetary Operations conducted by the R.B.I. as Central Monetary Authority. In fact the R.B.I. has lost autonomy in monetary management and it has to dance at the tune set by the Fiscal Authority i.e. Government. Hence we would like to recommend that
all attempts should be made to reduce deficit by controlling Government Expenditure, particularly on subsidies of all types. Efforts should also be made to raise Tax Revenue by widening the basis of Taxation, Preventing avoidance and large scale Tax evasion. This would necessitate training of personnels and Reforms in Tax Laws and Administration.

(3) Since Money Supply is strongly and positively sensitive to Reserve Money which in turn has been more responsive to Net R.B.I. Credit to Government. Any mistake on our part to estimate desirable quantity of N.R.B.I.G. may cause Macro Economic imbalance through the changes in High Powered Money and consequent changes in Money Supply. Our past experience of 1970’s and 1980’s has shown that unplanned growth of N.R.B.I.G. has resulted in considerable changes in R.M. and M3 beyond our capacity to absorb these shocks and it resulted into serious inflationary pressures and Balance of Payments Crisis. We would like to suggest that just as there is an annual budgetary exercise, in the same way growth of R.M. has to be budgeted and planned, considering repercussions on the other crucial Monetary and Fiscal variables. Central Monetary Authority should be given greater autonomy with regard to planning of Reserved Money instead of asking it to play permissive role to accommodate what amount of credit needed by the fiscal authority i.e. Government.

(4) Liberalisation and Globalisation have now been accepted in India. Exogenous influence on our monetary system has increased and the task of the R.B.I. is going to be much more
difficult, while designing and conducting appropriate monetary policy for achieving Macro Economic goals. In this connection we would like to recommend that there is an urgent need in India under changing economic scenario, to review the role of Monetary Authority. The R.B.I. would be required to play key role in sterilising influence of external capital inflow so as to minimise undesirable changes in the foreign exchange rate, which is a key factor governing International Economic relations. We therefore suggest that R.B.I. should be liberated from the unwanted regulations and obligations imposed on its behaviour to serve the need of Government for monetary resources. This would call for amending the R.B.I. Act and other related provisions. But it is a must in the present context.

NOTES AND REFERENCES

1. We have used M3 concept of Money Supply consisting of Currency + Demand Deposits + Time Deposits held with the banks.

2. Committee to review the working of Monetary System has expressed the same view points.