Chapter I

Methodology And Plan Of The Study

1.1 Background :

Since the industrial revolution, the advanced economies of the west have experienced recurrent bouts of recession and inflation; the circumstances in this context faced by the developing economies were even worse and they continued to be so even today. To cite an example: in the united states more than 25 percent of the labor force was unemployed in 1933, and large segments of population were needlessly destitute. Again in 1958 unemployment was excessive, and because of involuntary idleness of men and machines, the economy wasted output at a value of over $50 billion. Although full employment was the norm during the last half of the 1960s, it was not possible to combine this performance with price stability. Over theyears, the higher and higher rates of inflation with its increased instability has emerged as a major macroeconomic problem. Needless to say, these economic ailments had affected all the economies of the world at one time or the other with varying degrees[1]. The great depression of the 1930s was a worldwide phenomenon, and inflation has characterized the world economy since World War-I.

However, the interesting thing is that prior to these macroeconomic upheavals, a systematic and coherent macroeconomic

1. E.A.Goldenweiser, "Post War Problems and Policies", Federal Reserve Bulletin, Feb.1945, 31, 112-21.

theory had existed in the form of writings of classical writers. Macroeconomic theory as a separate branch of economies is in this sense not new. Almost since the days of classical writers, economists have been concerned with the theme of macro aspects of an economic, system. However, it has only been in the last generation that concern with macroeconomic theory, macro variables and macro policies has become widespread. This is attributable to several factors; One is the observed inadequacy of traditional policies or beliefs of classical economics to counter or solve some èconomic problems, viz. depression - where it was found that economic system was incapable of generating forces which would bring the economy out of depression. In a sense, this was a major and fundamental attack on the classical orthodoxy. The alternative as suggested by John Manyard Keynes(1936)[2], was to enhance the economic role of government to remove the problem of deficiency of aggregate demand. This idea of government interference in the market had unleashed, subsequently, an era of theoretical and empirical research in macro economics which are diverse and unprecedented in nature[3].

Their implications are profound for macro economic policies. This then obviously indicates the necessity of undertaking

2. J.M.Keynes, The General theory of employment, Interest and Money, Harcourt, Brace & World, Inc, New York 1936.

3. Evans, M.K.(1969), Macroeconomic Activity, Harper and Row, New York; Kuh, E.And R.L.Schmalensee(1973), An introduction to Applied Macro Economics, North Holland, Amsterdam; Lovell, M.C.(1975), Macroeconomics: Measurement,

a more detailed and a deeper analysis of the macroeconomic phenomena than had hitherto been attempted.

The second reason lies in the increase in general interest in the emerging concepts and controversies surrounding macroeconomic theory and also a wide spread and immense practical concerm with the effectiveness of alternative macroeconomic policies in combating the problems of unemployment growth and inflation. It should be noted that this was precisely the time when growth was everybody's concern and everyone was trying to concentrate on raising the long term rate of growth. Amidst this background, there was hardly any disagreement regarding the macroeconomic objectives to be fulfilled. Morethan that, the disagreement existed regarding the role that should be assigned to the macroeconomic policies. This is primarily because it was argued that the discretionary demand management policies are more destabilizing than stabilizing; since structure of an economy is not known precisely and since there also exists time lags and considerable amount of uncertainty about the impact of policy, any efforts at stabilizing the economy always fail. Subsequently waves of empiricism led to a proliferation of quantitative studies which brought out empirical evidence for and against various accepted macroeconomic theories. This new development paved the way for more extended research and opened up new possibilities of both theoretical and empirical research. As Kenneth boulding has remarked, "As the science develops, it no longer investigates the world it is investigating. Rather, it creates the world it is investigating"[4].

It is no exaggeration to say that there is hardly any field of economics in which the writings of economists are so strongly influenced by both current fashions in opinion and current problems of economic policy as the field of macroeconomics. As already mentioned earlier, period prior to 1930s characterized a period when classical tenets had dominated the thinking and approach to both macroeconomic theory and policy. On the otherhand, the period after 1930s and upto early 1960s, Keynesian ideas replaced the classical approach to macroeconomic theory and policy and the policy of 'fine tuning' using fiscal instruments to achieve full employments[5], was widely accepted over that period. The latter part of the 1960s and early 1970s saw the rise of monetarism and the view that 'money matters': control of inflation required control of the money supply. This approach was coupled with the view that uncertainties about the short-run impact of policy variables on the economy titled the

4. Kenneth E.Boulding(1970) - Economics as a science, New York McGraw Hill, P.121.

5. G.Ackley(1962) Macroeconomic Theory(New York: Macmillan)

argument against the use of 'fine tuning' and in favour of setting policy instruments according to 'rules'. Those who favoured rules rather than discretion also accepted that the economy was self-correcting and that, in the long run, automatic full employment would ensue. The latter part of 1970s witnessed two major oil price shocks and it was also observed that 'sound' Monetary Policies did not always appear to reduce inflation without also causing a substantial fall in real output. Just as the monetarist approach appeared to be losing credibility in practical terms, it received an academic boost from the so called rational expectations - new classical(RE -NC) approach. Early versions of the new classical approach suggested that systematic monetary policy has no effect on output even in the short run, while unaiticipated changes in money supply exacerbate the economic cycle. Another powerful implication of the RE-NC approach is that it is impossible to assess alternative policy options using "Conventional" macro econometric models. These RE-NC propositions seemed to imply the demise of discretionary policy or what is the something in the words of R.G.Gordon, they imply 'Policy ninilism'[6].

Today the controversy still surrounds the relative impact of monetary and fiscal policy on the economy, whether they are

6. R.Gordon, "Recent developments in theory of inflation and unemployment", in P.G.Korliras and R.J.Thorn, eds. Modern Macroeconomics(New York: Harper and Row, 1979).

stabilizing or destabilizing, the determinants of exchange rate; the use of rules or discretion in the setting of policy instruments and whether the economy automatically moves to a full or high employment level of output.

In pre-Keynesian days; monetary policy was the single established instrument of aggregative economic policy and price stability was its established objective. The Keynesian revolution introduced an alternative instrument; fiscal policy; and a second objective, maintenance of full employment (now more commonly described as economic stability) which might conflict with the objective of price stability. This has led to the emergence of policy instrument of debt management. In recent years, the balance of payments problems have paved the vay for one more instrument of policy - foreign economic policy or foreign exchange rate policy.[7] Now this very recognition of several objectives of economic policy introduces the possibilities of a conflict of objectives which has to be resolved involving some sort of compromise; this means to what extent and at what cost, some objectives are achieved or atleast receive greater priority than the others[8]. This indicates

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7. Johnson H.G.(1972), 'Monetary theory and Policy' - American Economic Review, June, Parts I and II.

8. Gupta S.B.(1979). Monetary Planning for India, Oxford University Press; refer to Chapter-1 for objectives of monetary planning.

and necessitates rigorous theoretical exploration and quantitative assessments of the costs and benefits of alternative compromises between conflicting policy objectives. Further more the availability of alternative policy instruments introduces the question of their absolute and comparative effectiveness; what role should be assigned to alternative policy instruments; how the fiscal policy and monetary policy are approached and assessed within a specific macroeconomic setting; what is underlying nexus between fiscal policy and monetary policy; more than this, the real issue would be whether the appropriate policy action is taken at the right time and whether effects of economic policy actions on the economy occur soon enough and reliably enough to have a significant stabilizing effect. These are some of the interesting and challenging questions pertaining to the macroeconomic policies. In fact, they assume greater significance in a mixed economy like India which has accomplished 40 years of planning with varying degrees of economic successes and failures.

As is well known, India is one among many quasi controlled developing economies with a large number of markets either directly controlled or indirectly regulated by the government. The Indian economy manifests symptoms of disequilibrium which resemble the demand deficiency problem said to be more typical of free market economies and supply bottlenecks more often associated with centrally planned systems. Although govt.

administered prices are presumably more responsive to economic signals in these economies than in centrally planned systems, repressed inflation is likely to be not uncommon as price increases are postponed for as long as possible[9]. While there are many markets beyond the purview of the government, quesues, shortages, black market activity and rising subsidies to maintain stable prices are commonly observed in India and other quasi-controlled economies. Alongwith these structural factors, the Indian economy exhibits none of the extremes of external shocks and sudden, drastic policy change, or of outcomes such as accelerated growth or lasting recessions accompanied by large increases in unemployment or inflation and debt servicing problems, the features which characterized Latin American and some Asian Countries. Not surprisingly, this very absence of chronic, dramatic crises seems to require an explanation, for there have been considerable disturbances like periodical internal exogenous shock from drought, higher oil prices, decreases in output from restrictive monetary and fiscal policies etc. If, in principle, these disturbances could be traced back to the domestic policies or at least, some association could be established, much ambiguity and absence of knowledge could be eliminated. An analysis of Indian Macroeconomic polities is necessary to gain an understanding of the economic crises of whatever magnitude the Indian economy has experienced. It seems a good deal has been written about the intricacies of Indian controls and consequential price

9. A.K.Lahiri and Prannoy Roy(1986). "Is Indian Industry demand or supply constrained? " - Economic and political Weekly, Vol.XXI, No.6, February 8,1986.

distortions with their adverse effects on production and prices but almost nothing seems to have been written to explain Indian macro-economic policies and issues pertaining to them or to even question whether they have been conducive to long run development.

The present study, which concentrates on the theoretical and quantitative analysis of explanation and issues surrounding Indian macroeconomic policies, is an initial and essentially experimental attempt in the direction of augmenting our knowledge regarding what type of stabilization policies were followed; whether they have been stabilizing; if not what are the major deficiencies in Indian economic policies and what are the requirements for a sound and appropriate macroeconomic policy, In a semi industrialized and semi developed country such as India where rapid economic growth and price stability have become national goals, a study involving an analysis of behaviour of macroeconomic aggregates (growth rates of real national income, unemployment, inflation, balance of payments, industrial and agricultural production), the major policy variables(money stock, high powered money, bank credit, govt. expenditure, taxes etc.) and the interrelationship among different policies assumes special significance.

This is not only because it helps to findout what has and what has not been relevant to macroeconomic policies already followed but also because of the profound implications it has for the crucial decisions and policies that affect future growth, prices and internal and external viability of Indian economic system. Indeed, it is precisely because there are so many macroeconomic objectives and also because there are various instruments of macro policies for stabilizations, that a systematic study of Indian macroeconomic policies in theoretical and quantitative terms is necessary and rewarding. Moreover, it would pave the way for an analytical comparison of the behaviour of macro variables, specific macro policies followed, its consistency and/or its contradictions, if any, with reference to Indian economy as against some of the western economies, thus contributing to a more systematic explanation of the question. So often raised, viz. why macroeconomic policies differ and why macroeconomic performance differs substantially.

Though macro economic analysis would seem rather hard for a diverse and vast country like India, it should be fairly obvious that in order to serve all these purposes adequately and satisfactorily, a well directed sustained effort on a larger scale is required before any set of firmly established quantitative conclusions can be arrived at.

1.2 Methodology :

Secondary data pertaining to both macroeconomic goal variables and policy variables are utilized for the Indian economy for a period of thirty eight years starting with

1950-51. Whenever data are not available for the earlier period, the analysis would be restricted to the years for which data are available. The major variables included and analysed in the study are : Money stock(both M_1 and M_3); its components, borrowings from RBI, Bank Credit, total reserves, total aggregate deposits net RBI credit to the government, government expenditure, revenue, government deficit, deficit financing, bank rate, reserve requirements, open market operations, nominal and real GNP, wholesale prices, consumer prices, agricultural productions, imports, exports, foreign exchange reserves, exchange rate etc. Needless to say the list is not exhaustive.

For empirical analysis, the ordinary least square procedure of estimation is used in fitting equations to basic data. The criteria adopted in judging the goodness of fit are those employed in any quantitative exercise, namely, the magnitudes of the coefficient of multiple determination, the standard error of the estimate, the statistical significance of the measured effects of exogenous variables, and even more importantly, the signs expected for them in terms of received economic theory and the order of the Durbin-Watson statistic. Most of the modern sophisticated time series techniques will be eschewed since the basic aim of the attempted quantitative exercise is to gain an insight into and, to explore further, whether exists any statistically significant association between different policy parameters and major economic goal variables pertaining to the Indian economy. However, this is not to suggest that severity of econometric problems, whenever it exists, and, of whatever magnitude, would be avoided or overlooked. An appropriate care will be taken to keep econometric problems and their adverse effects on the results to a minimum. Despite this, the limitations and constraints of various sorts, if any, would be sorted out clearly whenever they exist to circumvent any resultant ambiguity and/or misunderstanding about the qualitative conclusions that we reach about any of the macroeconomic policies. Furthermore, extensive use will be made of graphs, ratios of variables as well as growth rates of different variables to appraise their behaviour over a period of time, to work out the implications of the specific type of behaviour and even to compare the temporal behaviour of macroeconomic magnitudes.

1.3 Purpose and Plan of the Study

The present study centres mainly around the question of highlighting pertinent issues surrounding Indian Macroeconomic policies and to furnish empirical evidence on these same issues using secondary data during the period of thirty eight years following the year 1950-51, i.e. 1950-51 to 1987-88.

The analysis and examination of all the issues pertaining to monetary, fiscal and exchange rate policies are not possible here however, this study attempts to examine major issues bearing on either conceptual aspects of policies or the conduct, formulation of policies and their impact on macroeconomic variables.

It therefore seeks to contribute in the following directions :

i) The mainstream macroeconomic models were primarily built for the analysis of the functioning of developed countries. Quite often, in most of the theoretical models and empirical work, the models of advanced countries are applied without appropriate modifications. This practice has often produced results and policy prescriptions which are suspect and are highly at variance with the structural and institutional features of developing economies. The question is to what extent mainstream macroeconomic models are appropriate for a mixed economy like India; Are they relevant at all? if no, what necessary modifications are required!

ii) Monetary policy is considered to be a powerful stabilization tool. Its significance lies in its powerful effects on output (especially in situations of unemployment), price level and other macroeconomic variables. Viewed this way, the question is what

what are the theoretical foundations of monetary policy? At theoretical level what is the link between money stock and other macro variables that is sought to be established? If the effect of money stock changes cannot be split into price and output effects then to what extent money stock variations can explain variations in current money income which is the product of prices and real output?

At the policy level, at least in the Indian context, money stock rather than interest rate is considered important monetary policy variable. The relevant issue here is which monetary aggregate is a more appropriate target as well as indicator of monetary policy? Whether it is narrow money or broad money aggregate! What are the criteria, that one can follow to establish the issue of monetary target? If macroeconomic instability is thought to be primarily caused by imbalances in money market(the gap between money demand and money supply) then pertinent question is how that monetary imbalance arises? is demand for money function unstable? is it because behaviour of money supply is uncertain and fluctuating! If demand for money function can be found to be a stable function of few variables, can money stock be controlled and predicted with some accuracy? A more relevant question is to what extent the adoption of money multiplier model a good guide to monetary policy in India? Does it have any operational significance?

If, as an alternative, one examines the factors affecting the money stock in India then one is struck by the fact that different factors exert varying degrees of influence on money stock at different time periods; Now this has profound implications for the conduct and formulation of monetary policy. What needs to be studied is whether the structural composition of money stock has changed drastically? What changes have taken place over time ?

ii) Fiscal Policy is another powerful tool for stabilization purposes. Besides, through manipulation of taxes and government spending, It can also be used to achieve microeconomic goals in the areas of resource allocation and income distribution which are desirable and meritorious in their own right. For example, a tax cut or an increase in government spending can be used, not only to pull the economy out of a current recession, but also to increase the share of the national income going to the poor or to expand currently underproduced social goods and services.

In the context of Indian economy, fiscal policy is geared to the objectives of growth through resource mobilization and efficiency of resource allocations. To what extent the fiscal policy has been successful in tapping the resources? Whether tax efforts of the government were successful ! What is the performance of the public sector in this regard! Have the plan targets for public savings been fulfilled ? If not, what are the constraining factors? What is the share of direct taxes and indirect taxes in the context of the total tax receipts of the government!

The Indian economy has also been found to be not free from short term fluctuations. Both nominal and real growth rates of number of macroeconomic variables have shown marked fluctuations over the years. This only means that the Indian economy has been experiencing frequently occassional bouts of the periods of recession and expansion. The question one likes to raise in this context is to what extent the deficit of govt. has been a fine tuning device in the Indian economy? Has it been successful in stimulating the economy during recession and constraining it during expansion! Has the real deficit been moving procyclically or anti-cyclically? Has it been exerting stabilising or destabilising influence? In short, has the discretionary fiscal policy been successful in its positive and activist role in stabilizing the economy?

Furthermore, in the last few decades, the government deficit has assumed alarming proportions. With government revenues lagging far behind, the commitments of the government, both in nominal and real terms, have been found to be accelerating. Now, part of these commitments are for development purposes and partly they are for non-development purposes. It is instructive to inquire as to what is the composition of the union budget deficit? What changes have taken place in it over a period of time? Whether the share of non-development components like interest payments, subsidies and defence are rising! What implications it has for the economic viability of the nation! What are sources of finance for larger and larger government deficits! Is money stock in any way related to rising level of government deficits! What empirical evidence one can furnish regarding relationship between monetary policy and fiscal policy? Is this relationship stable overtime ?

iii) The study would attempt an analysis of India's export performance and would assess the impact of export promotion policies and would identify constraining factors, both internal and external, of exports. The issue of external economic viability would be examined. Some aspects of India's exports, income and exchange rate would be quantitatively assessed.

Iv) A synthesis of monetary, fiscal and exchange rate policy will be provided and prospects for economic liberalisation would be assessed. In what follows, we present briefly the broad outline and scheme of the present study.

The study is divided into eight chapters including the present one which is mainly introductory in nature.

The second chapter would be related to the state of Indian economy and the chronological sketch of macroeconomic policies in India. The third chapter would provide a theoretical Survey of Macroeconomic policies and would attempt to highlight the relevant issues pertaining to monetary policy, fiscal policy and exchange rate policy. The fourth chapter exclusively focuses on monetary policy in India and would examine relevant issues. The fifth chapter concerns itself with fiscal policy in India and related issues. The Sixth chapter is related mainly to an appraisal of Indian exports and exchange rate policy. The seventh chapter brings out a synthesis of all macroeconomic policies and would review the impact and prospects of recent decontrol and liberalisation policies. The Chapter eight will provide summary and conclusions of this study.