

CHAPTER 30

Macroeconomic Policy: Meaning, Objectives and Formulation

INTRODUCTION

Recall that the working and the effectiveness of the two most important macroeconomic policies—monetary and fiscal policies—have already been discussed in Chapter 18 in the framework of the *IS-LM* model. Our objective there was purely theoretical. We have explained there how fiscal changes affect the *IS* schedule and how monetary changes affect the *LM* schedule, and how these changes affect the equilibrium level of income and interest rate. In this Part of the book, we discuss monetary and fiscal policies in a wider perspective from practical and empirical points of view. The various aspects that will be covered here include the following ones.

1. The meaning and scope of macroeconomic policies;
2. The need for and advent of macroeconomic policies;
3. Objectives and formulation of macroeconomic policies in general; and
4. Objectives of India's macroeconomic policies.

In general, major macroeconomic policies include (i) monetary policy, (ii) fiscal policy, (iii) income policy, (iv) growth policy, (v) stabilization policy, and (vi) employment policy. However, we will concentrate in this Part of the book, on only two main macroeconomic policies, *viz.* *monetary policy* and *fiscal policy*. In fact, these two macroeconomic policies are the two most important macroeconomic policies and other policies pertaining to economic growth, stabilization and employment are the components of these policies. Before we discuss these policies at length, it will be useful to have an overview of macroeconomic policy, including its meaning, need, objectives and method of formulation.

30.1 MACROECONOMIC POLICY: MEANING AND SCOPE

What is Macroeconomic Policy?

Macroeconomic policy can be defined as a programme of economic actions undertaken by the government to control, regulate and manipulate macroeconomic variables to achieve certain

predetermined macroeconomic goals, viz., economic growth, price stability and employment. In the words of Brooks and Evans, "Macroeconomic policy can be thought of as an attempt by the authorities to achieve particular target levels of certain major economic aggregates."¹ A macroeconomic policy is, in fact, an instrument of governing the economy to achieve certain macroeconomic goals. In general, macroeconomic goals include a sustainable growth rate, full or near full employment, equitable distribution of national income, a stable price level, and equilibrium in the balance of payments.

The scope of macroeconomic policy, encompasses (i) the policy targets—the objectives, (ii) the target variables, and (iii) policy instruments. The objectives have already been mentioned above. The target variables include all major macroeconomic variables. Macroeconomic variables include both real and monetary variables. *Real variables* including GDP, total employment, aggregate expenditure, saving and investment, government expenditure and tax and non-tax revenue, exports and imports, and the balance of payments. *Monetary variables* include supply of money, demand for money, supply of credit, bank deposits and interest rate. Given the two categories of macro variables, there are two kinds of tools or instruments to control and regulate the macrovariables, viz, *monetary measures* and *fiscal measures*. The working of monetary and fiscal policy measures will be discussed in detail in the forthcoming chapters. In this introductory Chapter, we focus on the need for macroeconomic policies, their objectives in general and the problems encountered in the policy formulation.

30.2 THE NEED FOR AND ADVENT OF MACROECONOMIC POLICIES

Macroeconomic problems have always been there ever since the countries began their endeavour to improve their living conditions. But the role of government in managing the economy and use of macroeconomic policies to solve the macroeconomic problems are of recent origin. Until the Great Depression of 1930s, there was nothing like macroeconomic policy. The reason was the prevalence of the classical economic thoughts that the economy should be left to work on the principles of free market mechanism and the government role in economic activities and its intervention with the economic system must be minimum.² However, the Great Depression (1929-1933) shattered the classical doctrine as it could offer neither an explanation nor a solution to the devastating and unprecedented economic crises caused by the Great Depression. The Great Depression had caused an unprecedented decline in *GDP* of the industrialised nations and an unprecedented increase in unemployment and poverty.³ The classical and neo-classical economic thoughts and theories that had prevailed over 150 years could not be applied to diagnose the problem nor could they provide guidelines to revive the economies from depression. The basic reason was that the classical

¹ John Brooks and Robert W. Evans, *Macroeconomic Policy in Theory and Practice*, 1978, (George Allen & Unwin, London), p. 2.

² According to Adam Smith the government functions should be limited to (i) national defence, (ii) law and order and internal security, (iii) judiciary, and (iv) establishment of basic institutions and enactment of law to foster the working of the market system.

³ For instance, the US economy had experienced, between 1929 and 1933, a fall of 30% in its *GNP*, increase in unemployment from 3 to 25%, decline in stock prices by 85%, and negative net investment between 1931 and 1935.

economics was of microeconomic nature whereas the Great Depression was of macroeconomic nature.

It was Keynes—the founder of the macroeconomics—who showed the need for the government role in economic management to achieve growth and stability. Keynes' view gained prominence in the post-Second World War period, specially in the reconstruction of the war-ravaged economies. A fairly successful role of the government in the reconstruction of the war-ravaged economies established the Keynesian view that the government can play an important role of the prime-mover and can accelerate the pace of economic growth, reduce unemployment and stabilize the economy through its fiscal measures. "Many early enthusiasts of the Keynesian approach believed that fiscal policy was like a knob [the government] could turn to control the pace of the economy."⁴ Incidentally, most countries adopted fiscal measures under their 'bail out scheme' for reviving their economies from the current global recession (2008-09).

Some economists believe that "The need for macroeconomic policy arises because the economic system does not adjust appropriately to the shocks to which it is constantly subjected."⁵ However, the role of macroeconomic policy did not remain confined to controlling business cycles: it was extended far beyond. In fact, the early success of Keynesian prescription to cure economic problems of the 1930s and to reconstruct the War II-devastated economies created a strong belief that macroeconomic policies could be used to solve the problems of underdevelopment in the underdeveloped countries, viz., (i) breaking the 'vicious circle of poverty' of the backward economies and pushing them out of their 'low equilibrium trap,' (ii) creating conditions for capital formation and economic growth, (iii) solving their problem of chronic mass open and disguised unemployment, and (iv) reducing the inexplicable wide gap between the rich and the poor. In most backward economies, therefore, the need for macroeconomic policy was felt for creating conditions for economic growth. In the post-Independence period, India adopted broadly the Keynesian model to develop its Five Year Plans to lift the Indian economy out of its 'low equilibrium trap'.

It may be added here that the Keynesian macroeconomic policy was based broadly on fiscal measures. But fiscal policy began to show its weaknesses and proved ineffective during the 1960s. Therefore, another school of thought emerged, called *monetarism*, led by Milton Friedman. Monetarists emphasized the role of money in working of the economy and suggested monetary policy as the basic macroeconomic policy for controlling and regulating the economy to achieve macroeconomic goals. Whether *fiscal policy* or *monetary policy* is more effective in achieving the macroeconomic goals has been a controversial issue. This aspect has already been discussed in preceding chapters in different context.

30.3 OBJECTIVES OF MACROECONOMIC POLICIES

The objectives of macroeconomic policies are determined by the policy-makers in view of the social and economic aspirations of the people, which, of course, vary from country to country and from time to time depending on the changing economic conditions. Therefore, the policy objectives are bound to vary from country to country and from time to time. However, *employment*

⁴. Samuelson, P. A. and Nordhaus, W. D., *Economics*, 15th edn., p. 626.

⁵. M.H. Piston, *Theory of Macroeconomic Policy* (Philip Allan, Oxford, 1974), p. 1.

and *economic stabilization* were the two primary objectives of macroeconomic policies of most developed countries in the post-Depression period, though many other objectives were added later to the list of macroeconomic policy objectives. We discuss here the major and common objectives of macroeconomic policies.

30.3.1 Economic Growth

Achieving and maintaining a high growth rate has been accorded a top priority in the economic agenda of most nations—rich and poor. Also, the emphasis on a reasonably high growth rate in accordance with growth potentials of the nation has increased tremendously over the past half-a-century. To quote Samuelson again, “Economists and politicians from all nations, rich and poor, capitalist, socialist, and mixed, have worshipped at the shrine of economic growth”. The reasons for predominance of growth objective are recognised as listed below.

- (i) The level of economic growth determines the level of fulfilment of social and economic aspirations of the people;
- (ii) It ensures the very survival of a country as a free and independent nation;
- (iii) It determines the capability of a nation to defend its borders and sovereignty;
- (iv) It determines the level of respect and honour a country receives in the world community;
- (v) It is the only way of creating job for unemployed and eradicating poverty; and
- (vi) It helps maintaining peace and preventing a possible disintegration of the nation.

For the above reasons, a reasonably high growth rate (5-6% p.a.) is viewed as an indispensable economic and political objective of most nations. Since the 1970s, however, there has been a remarkable change in the private and public perception of economic growth and economic well-being of the people. There is growing disillusionment in both the rich and poor nations regarding the ‘relentless pursuit of growth’ being ‘the principal economic objective of society.’⁶ The issue of cost of economic growth in terms of degradation of social life and environment has overtaken the issue of growth. The experience of many developing countries show that growth does not necessarily improve the quality of life, social relationships, economic condition of the poor. Economic growth in Africa, Asia and Latin America has left millions of poor untouched from the benefits of growth over the past half-a-century. Therefore, emphasis has shifted from growth to eradication of poverty and economic inequality. Some economists call for ‘dethronement of GNP’ and crowning the eradication of poverty’. For example, Mahbub-ul-Haq, a renowned economist of Pakistan, asserts, “We were taught to take care of our GNP as this will take care of poverty. Let us reverse this and take care of poverty as this will take care of the GNP.”⁷

Notwithstanding the disillusionment with economic growth as the prime objective of economic policy, a well conceived growth plan and a well managed economic growth is undeniably the only answer to the widespread problem of poverty and unemployment. For instance, according to the

⁶ Michael P. Todaro, *Economic Development in the Third World*, 4th Edn. (Orient Longman, Hyderabad, 1993), p. 143.

⁷ Mahbub-ul-Haq, “Employment and Income Distribution in the 1970s: A New Perspective,” *Development Digest*, October 1971.

Tenth Plan Projections, in India, the percentage of population below poverty line (BPL) decreased from 51.50 per cent in 1972–73 to 27.50 per cent in 2004–05 due, mainly, to economic growth of the country. With the rise in growth rate since 2000, the rate of unemployment too declined, from about 9.22 per cent in 1983 to 8.28 per cent in 2004–05.⁸ However, in spite of a high growth rate of 6–7 per cent, the rate of unemployment and poverty ratio in India was very high. However, the rate of unemployment on CDS (current daily status) declined⁹ to 5.6 per cent in 2011–12. It implies that growth alone does not ensure a rapid decline in poverty and unemployment. What is needed is to shift the emphasis from growth to ‘inclusive growth’.

30.3.2 High Rate of Employment

Achieving and maintaining full employment has been one of the major objectives of Keynesian macroeconomic policy. Keynes is regarded as the first economist who emphasized the need for full employment and a justification for making it a macroeconomic target. According to him, one of the “outstanding faults of the economic society in which we live is its failure to provide full employment” (*The General Theory*, p. 372). Full employment is defined variously. Keynes defined full employment as “a situation in which aggregate employment is inelastic in response to increase in the effective demand (*ibid.* p. 26). As already mentioned, UN Experts on *National and International Measures of Full Employment*, define full employment more meaningfully as “a situation in which employment cannot be increased by an increase in effective demand and unemployment does not exceed the minimum allowance that must be made for effects of frictional and seasonal factors.”

The desirability of full employment as an objective of macroeconomic policy lies in the social benefits of employment in terms of additional output lost due to unemployment. Besides, employment of unemployed reduces the social and economic misery causing suicide and killing of family members and mental agony suffered by the unemployed. The desirability of full employment as an objective of macroeconomic policy was, in fact, established more profoundly than ever before by Arthur M Okun in his famous law. Recall the Okun’s law (see Chapter 25, Section 25.1) stated as “In the post-War II period, on the average, each extra percentage point in the unemployment rate above 4% has been associated with about a 3% decrement in real GNP.”¹⁰

The employment objective is congruent with growth objective. Generally, they go hand in hand. However, a high growth rate does not necessarily ensure a high rate of employment. Therefore, during and the post-War II period, the economists and economic advisors suggested that the government should own the responsibility of creating additional job opportunities and maintaining high level of employment. For instance, Britain’s White Paper (1944) recommended, “The Governments accept as one of their primary aims and responsibilities the maintenance of a high and stable level of employment after the war.” The US Employment Act (1946) lays down that the Federal Government should “use all practicable means consistent with its needs and obligations

⁸. *Economic Survey—2008–09*, MOF, GOI, Table 10.2, p. 260 and Table 10.5, p. 264.

⁹. *Economic Survey—2013–14*, MOF GOI, p. 235.

¹⁰. Arthur M. Okun, “Potential GNP : Its Measurement and Significance,” *ibid.*, p. 135. Although later researches on the subject show that Okun’s coefficient has not been stable, it does provide an insight into the social cost of unemployment.

and other considerations of national policy ... to coordinate and utilize all its plans, functions, and resources for the purpose of creating and maintaining ... useful employment opportunities, ... and to promote maximum employment, production and purchasing power." The governments in many developed countries adopted employment promotion as one of the main objectives of their macroeconomic policy.

The acute problem of unemployment in the *LDCs*, especially the countries which achieved their independence after the Second World War, adopted the Keynesian policy in their development programmes. Employment promotion has been one of the main objectives of their macroeconomic policy and of the development plans. For example, creation of employment has been one of the basic aims of all the Five Year Plans of India.

30.3.3 Stabilization of Prices, Output and Employment

Price stabilization was the foremost objective of macroeconomic policy of the industrial countries during and after the Great Depression. In Britain, the Macmillan Committee on Finance and Industry (1931), had suggested that 'our objective should be, as far it lies within the powers of this country to influence the international price level,' to raise the price level above its Depression level and to maintain it at that level 'with as much stability as can be managed' and that 'this objective be accepted as the guiding aim of the monetary policy' of this country.¹¹ In the Foreword to the British White Paper (1944), it was specifically recommended that "The government accept as one of their primary aims and responsibilities the maintenance of a high and stable level of employment after the war."¹² These recommendations by the advisory committees mark the beginning of a new policy approach towards the macroeconomic problems of the post-War period and the beginning of the government assuming a new role.

The USA had adopted a similar approach to the problems of unemployment and price stability. Although stabilization aspect was not clearly mentioned in the US Employment Act (1946), it was 'clearly implicit' in the Act. However, it was made an explicit objective of the Federal Economic Policy during the late 1950s. When the US economy faced severe inflation in the late 1950s, President Eisenhower recommended in his Economic Report of 1959 that Employment Act 1946 should be amended to make a 'reasonable price stability an explicit goal of Federal Economic Policy.' Apart from the developed countries, like UK and USA, most developing economies had adopted price stability as one of the objectives of their macroeconomic policy. The reason was that their growth efforts had created conditions for a high rate of inflation, as was the case in India.

It may be added here that price stability as an objective of macroeconomic policy does not mean maintaining price index at a constant level. Some economists define price stability as "stability of some appropriate price index in the sense that we can detect no definite upward trend in the index after making proper allowance for the upward bias inherent in all price indexes."¹³ It implies that, a moderate rate of inflation is considered to be desirable. Therefore, from practical point of view,

^{11.} The Report of Committee on Finance and Industry, June 1931, p. 117.

^{12.} Quoted in Dasgupta, A. K. and Hagger, A. J., *The Objectives of Macroeconomic Policy* (Macmillan, London, 1971), p. 4.

^{13.} A. K. Dasgupta and A. J. Hagger, *The Objectives of Macroeconomic Policy* (Macmillan, London, 1971), p. 21.

price stabilization objective may mean preventing price rise in excess of its desirable limits, that is, 2–3 per cent in DCs and 4–5 per cent in LDCs. In effect, however, price stabilization means preventing violent fluctuations in the price level.

30.3.4 Economic Equity

The experience of both the developed and developing economies shows that economic growth does not ensure equitable distribution of national income, nor does it promote economic well-being of all its people. More importantly, growth has been generally accompanied by widening income inequalities marked with rich getting richer and poor getting poorer even though the average level of income has been rising. Income inequality puts a limit to overall economic growth of the country by limiting the aggregate demand. So economic equity has become as one of the objectives of macroeconomic policy. The policy purpose in this regard is to create conditions for a high rise in the income of the low-income group or to transfer the income from the rich to the poor by implementing suitable policy measures.

30.3.5 Stabilizing Balance of Payments

The phenomenal growth in the foreign trade in the post-War II period and a relatively slow growth of international liquidity (the means of external payments) led to disequilibrium in the balance of payments position in many countries. The problem aggravated due to protectionist policy, competitive devaluation and countervailing tariffs and other trade restrictions. Therefore, maintaining a satisfactory balance of payments position has been accepted as one of the important objectives of the macroeconomic policy since the 1950s. It is, however, difficult to specify as to what constitutes the satisfactory balance of payments position.¹⁴ Nevertheless, as discussed in Chapter 28, disequilibrium may be in the form of increasing *surplus* or *deficit* in the *BOP* position. A disequilibrium of deficit nature, specially when it is of perpetual nature and of a large magnitude, it is a matter of great concern for a country as it creates external payment problem and international indebtedness. For instance, the foreign exchange crisis of July 1990 in India led to a near collapse of the economy and country falling into a situation of debt trap. Argentina, Brazil and Mexico have suffered severe economic upheavals in the past decade due mainly to their adverse *BOP*. Therefore, maintaining a healthy *BOP* position is accepted as an important objective of macroeconomic policy.

30.4 OBJECTIVES OF INDIA'S MACROECONOMIC POLICY

The objectives of India's macroeconomic policy have been specified in the Five Year Plan documents and policy papers of the Ministry of Finance and the Planning Commission. The objectives of India's macroeconomic policies are reiterated, from time to time, in the annual budget of the Government of India, and the publications of the Reserve Bank of India. Interaction of government bodies with the economists of the country, foreign economic experts and economic bodies like International Monetary Fund and World Bank provide insight and perspective for determining the

¹⁴ G. K. Shaw, *An Introduction to the Theory of Macroeconomic Policy*, (Macmillan, London, 1973), p. 1.

objectives of the macroeconomic policies. The major objectives of India's macroeconomic policy are summarized below.

- (i) Achieving a growth rate of 5-6 percent per annum,
- (ii) Creating job opportunities for unemployed and underemployed,
- (iii) Removing economic disparity,
- (iv) Eradicating poverty,
- (v) Controlling inflation and ensuring price stabilization, and
- (vi) Managing balance of payments imbalances.

It may be mentioned here that the emphasis on these policy objectives changes from time to time depending on the urgency of the problem. However, none of the objectives of India's macroeconomic policies have been achieved satisfactorily. Achievements have been far below the target rates: (i) long-term growth rate had been about 3-4 per cent till 1970, though it increased during the 1980s and reached 9 per cent in 2007; (ii) employment rate has been much lower¹⁵ (1 to 1.5 per cent p.a.); (iii) economic disparity is claimed to have widened instead of decreasing as claimed by many researchers, and (iv) the price level has almost continuously increased—the annual average rate of inflation has been about 8 per cent per annum since 1960–61. The inflation rate was 10 per cent plus in 2008. Not only in India, it has been a common experience of many developed and developing countries that policy targets have not been satisfactorily achieved.

30.5 FORMULATION OF THE MACROECONOMIC POLICY

The task of policy formulation is, in fact, the responsibility of the government. It has to find a balance or a point of trade-off between the conflicting objectives of macroeconomic policies. For example, India faced the problem of policy conflict in the recent past. In 2007, India had a growth rate of 8–9% but inflation rate had gone up to 13%. The high rate of inflation was unacceptable. So India had to adopt a contractionary monetary policy. But this might affect the growth rate adversely. However, the problem was automatically resolved by the global recession of 2008-09 as both growth rate and inflation rate had declined sharply. It may be noted at the outset that there are no set rules for the formulation of macroeconomic policies. There is, however, a general procedure which is followed in the policy formulation. Three most important aspects of policy formulation are:

- (i) determination of policy objectives,
- (ii) choice of policy and policy instruments, and
- (iii) determining the target variables and targets.

Let us now look at the process of determining policy objectives, choice of policy and policy instruments.

¹⁵. During 1960s and 1970s, employment had grown at a reasonably high rate of over 2% per annum. See T. S. Papola, "The Question of Unemployment," in Bimal Jalan, *The Indian Economy: Problems and Prospects* (Viking Penguin India, New Delhi, 1992), p. 300.

30.5.1 Determination of Policy Objectives

As already mentioned, policy objectives are determined in the light of economic needs and social aspirations of the people of the country. The economic needs and social aspirations are reflected in the social and political ambitions of the politicians, social thinkers and philosophers, and intelligentsia, which they reveal in their writings and speeches. However, the major policy objectives are *economic growth, employment, equity and stability*. The priority and emphasis accorded to each of these objectives may vary from country to country and from time to time. It is for the policy-makers to make choice from these objectives and fix their priorities.

The choice of policy objectives and their prioritization depends on: (a) policy-makers' perception of the economic, social and political aspirations of the country; (b) their approach to the analysis and measure of economic needs and political compulsions of the society; (c) their own ideological predilections or bias towards a particular political and economic thought, and (d) their skills and expertise in economic theory, logic and tools.

In general, however, the objectives of macroeconomic policy are determined in view of the overall economic imperatives and socio-economic compulsions of the society. In a poor country, breaking the vicious circle of poverty and creating the conditions for rapid economic growth and creating employment opportunities are invariably the first and the predominant objective of its macroeconomic policy. In economically developed countries, however, price stabilization and employment promotion have been the top item on their economic agenda under normal economic conditions.

30.5.2 The Choice of Policy

Once macroeconomic goals are determined, the next step in policy formulation is the choice of an appropriate policy. Given the current policy structure, a policy or a combination thereof has to be chosen from a set of policies including (a) fiscal policy, (b) monetary policy, and (c) income policy.

After the determination of the objectives of macroeconomic policy, the policy-makers select an appropriate policy and policy measures for achieving the predetermined goals. The choice of policy and policy instruments depend on the economic development and structure of the economy. The choice is first made between the fiscal and monetary policy. For, in an economy with under-developed banking system and capital market, monetary policy has a little chance to be effective. Under these conditions, the choice falls in favour of the fiscal policy. This was largely the practice in India till mid-1980s. In a developed economy which has, in general, a highly developed money market, monetary policy is preferred. However, policy priority may change if conditions change. For example, the financial sector in the US had collapsed in 2008–09 recession. It was for this reason, the US government had adopted fiscal measures to revive the economy. In general, however, in both developed and developing economies, attempt is made to find an appropriate combination of fiscal and monetary policies. Where fiscal or monetary policy or a combination thereof fails to achieve the macroeconomic goals, the policy-makers look for direct controls like price and wage freeze, industrial licencing system for controlling choice of industries and choice of technology, control of imports and foreign exchange, and so on.

30.5.3 Choice of Target Variables and Policy Instruments

After a policy has been chosen, the policy-makers are required to select the target variables and the corresponding policy instruments. Let us first define these variables.

Target variables of macroeconomic policies are the macro variables which need to be controlled and regulated to obtain a desired result, the ultimate economic goal. The *target variables* of the monetary policy include (i) aggregate supply of money, (ii) aggregate demand for money, and (iii) credit created by the banks. *Fiscal policy target variables* include (i) disposable income, (ii) consumption expenditure, (iii) savings and investment, and (iv) wealth holding of the people.

Policy instruments are the variables which are under the direct control of the authorities and can be changed at the discretion of the government. For example, central bank's bank rate or repo rate, cash reserve ratio (*CRR*), statutory liquidity ratio (*SLR*), prime lending rate (*PLR*), tax rate and the level on public expenditure are the main policy instruments. Policy instruments are also called as *instrumental variables*. The policy instruments can be classified under two categories:

- (i) monetary policy instruments, and
- (ii) fiscal policy instruments.

Monetary policy instruments include (i) bank rate or repo rate, (ii) open market operations (*OMO*), (iii) cash reserve ratio (*CRR*), and (iv) selective credit controls. Monetary instruments affect the demand and supply of money. In effect, they work on the flow of money from the banks to the public and from the public to the banks. Precisely, tools of monetary control affect largely the flow of institutional credit. This increases or decreases the demand for money by the people. Since money is a medium of exchange, monetary controls affect the real variables.

The **fiscal policy instruments** include (i) public expenditure, (ii) taxation, (iii) public borrowings, and (iv) deficit financing. Discretionary changes in fiscal instruments bring about a change in the fiscal target variables. The changes made in the fiscal target variables work mainly through the real variables like disposable income, consumption expenditure, savings and investment, and wealth holding of the people. Obviously, fiscal measures of economic control affect almost all real macro variables and, therefore, have a wide area of influence. It influences economic decisions of all those who possess taxable income, consume taxable goods and services, have some savings and investment, or have wealth in the form of public bonds (e.g., government bonds like *Indira Vikas Patra*, *Kisan bond*, *Zamindari bonds*, etc.).

Monetary and Fiscal Variables are Interactive

It is important to note here that fiscal and monetary variables are interlinked. Therefore, the two kinds of control measures are interactive in nature. It means that, change in one kind of variables—monetary or fiscal—affects the other kind of variables. More explicitly, a change in a fiscal variable affects monetary variables and a change in a monetary variable affects the fiscal variables. For example, increase in public expenditure, especially by deficit financing, increases money supply with the people and increase in money supply increases aggregate household spending. Increase in household spending results in inflation.

Direct controls

In case monetary and fiscal policies prove ineffective, the government adopts direct control measures. The direct controls include mainly (i) price control, (ii) wage control, (iii) credit control, (iv) industrial licensing, (v) import control, and (vi) control of foreign exchange.

30.5.4 The Rules for Selecting Policy Instruments

After a policy or policy-mix has been chosen—fiscal, monetary or a fiscal-monetary mix—the policy-makers are required to select instruments of a policy or of a combination thereof, in case of each policy. This is necessary because each policy contains different instruments—what Samuelson calls “nut and bolts”—for achieving the same goal, and all instruments are not equally suitable and effective in an economy. There are no fixed rules for making a choice between the policy instruments. It depends mostly on the analytical ability and the judgment of the policy-makers. Nevertheless, there are certain procedural rules of policy formulation,¹⁶ which when followed prove helpful in avoiding policy conflicts and in reducing the area of uncertainty.

- (i) Making reliable estimates of key macro variables to be controlled and regulated;
- (ii) Taking into account the trends and the rate of change in key macro variables over a reasonably long period;
- (iii) Making reliable estimates of key coefficients and relationships between interrelated variables;
- (iv) Projection of target macro variables based on simulations;
- (v) Selection of policy instruments in the light of (i) to (iv);
- (vi) Assessing the time lag and acceptability of the time lag; and
- (vii) Checking administrative and political feasibility of the selected policy instruments.

Tinbergen's Rule

So far as economists' contribution in this regard is concerned, only a few contributions are worth mention in this regard. Jan Tinbergen of Netherlands, a Nobel Laureate in Economics, was first to propound a theory of policy formulation.¹⁷ According to Tinbergen's rule, once policy objectives are chosen, the policy instruments should be chosen accordingly. He suggested that the number of policy instruments must be equal to the number of policy objectives. Otherwise, the system will be inappropriately determined. If policy objectives exceed the number of available policy instruments, the system will be underdetermined and if policy instruments exceed the policy objectives, there will be number of optional combination of instruments and the system will be over deter-

¹⁶. See also G. K. Shaw, *Fiscal Policy* (Macmillan, London, 1972).

¹⁷. Jan Tinbergen, *On the Theory of Economic Policy* (North Holland Publishing Company, Amsterdam, 1952) and *Economic Policy: Principles and Design* (North-Holland, Amsterdam, 1956). For a brief description of Tinbergen's rule, see Thomas S. Dernburg, *Macroeconomics: Concepts, Theories and Policies* (McGraw-Hill Int., NY, 1985), Ch. 17.

mined. Some economists¹⁸ have tried to demonstrate the application of the Tinbergen's Principle for finding an appropriate combination of fiscal and monetary policies. However, Tinbergen's theory has not found wide application to the policy formulation. Besides, the choice of policy tools alone does not ensure the efficient working of the system. In fact, what matters in policy formulation is *pragmatism* rather than theoretical *dogmatism*.

Conclusion

This chapter introduces the macroeconomic policy with its major policy measures, objectives in general and the method of policy formulation. Macroeconomic policies differ from country to country and from time to time. There are no set rules for policy choice. It all depends on the economic conditions of the country.

Suggested Reading

- Brooks, John and Evans, Robert W., *Macroeconomic Policy in Theory and Practice*, (George Allen and Unwin, London, 1978).
- Dasgupta, A. K. and Hagger, A. J., *The Objectives of Macroeconomic Policy*, (Macmillan, London, 1971).
- Perkins, J.O.N., et al., *Macroeconomic Policy : A Comparative Study—Australia, Canada, New Zealand and South Africa*; (George Allen and Unwin, London, 1972).
- Piston, M.H., *Theory of Macroeconomic Policy*, (Philip Allen, Oxford, 1974).
- Prachowney, Martin F. J., *The Goals of Macroeconomic Policy*, (Routledge, London, 1994).
- Shaw, G.K., *An Introduction to Macroeconomic Policy*, (Macmillan, London, 1973).

Questions for Review

1. What was the classical approach towards the solution of the macroeconomic problems? How is Keynesian approach different from the classical approach towards macroeconomic management?
2. What is macroeconomic policy? Why does the need for macroeconomic policy arise? What was Keynes's contribution in this regard?
3. What are the macroeconomic variables? What are the relevant monetary and fiscal tools of controlling and regulating monetary and fiscal variables?
4. What are the major objectives of macroeconomic policies? Point out the conflicts between the various objectives of macroeconomic policy.
5. How are the policy conflicts reconciled? How is the macroeconomic policy formulated?
6. What are the problems in policy formulation? Describe briefly the procedure of policy formulation. Describe in this regard Tinbergen's rule of policy formulation.

¹⁸. See, for example, R. A. Mundell, "The Appropriate Use of Monetary and Fiscal Policy for Internal and External Imbalance," *IMF Staff Papers*, March 1962.

CHAPTER 31

Monetary Policy

INTRODUCTION

Monetary policy, in general, refers to the action taken by the monetary authorities to control and regulate the demand for and supply of money with a given purpose. Monetary policy is one of the most powerful tools of economic control and management of the economy. The various aspects of monetary policy have been discussed in a theoretical framework of *IS-LM* model in different previous chapters, especially the effect of different kinds of monetary policies on the aggregate production, interest rate and the price level. In this chapter, we will discuss monetary policy in detail. The following aspects of the monetary policy have been discussed in this chapter.

- (i) Meaning and scope of monetary policy;
- (ii) Monetary policy instruments and target variables;
- (iii) Role of monetary policy in achieving macroeconomic goals;
- (iv) Effectiveness and limitations of monetary policy; and
- (v) Monetary vs Fiscal policy controversy.

These aspects of monetary policy are discussed in theoretical tone with brief inputs from India's monetary policy.

31.1 MEANING AND SCOPE OF MONETARY POLICY

31.1.1 Meaning of Monetary Policy

The economists have defined monetary policy in different ways. For example, Harry Johnson defines monetary policy as a "policy employing central bank's control of the supply of money as an instrument of achieving the objectives of general economic policy."¹ G. K. Shaw defines monetary policy as "any conscious action undertaken by the monetary authorities to change the quantity, availability or cost ... of money."² *Monetary policy is essentially a programme of action*

¹ Johnson, Harry G., "Monetary Theory and Policy," *Am. Eco. Rev.*, Vol. LII, No. 3, June 1962, p. 335. Reprinted in his *Essays in Monetary Economics* (ed), (George Allen and Unwin, London, 1969), p. 15.

² *An Introduction to the Theory of Macroeconomic Policy*, op. cit., p. 65.

undertaken by the monetary authorities, generally the central bank, to control and regulate the demand for and supply of money with the public and the flow of credit with a view to achieving predetermined macroeconomic goals.

The objectives of monetary policy are generally the objectives of macroeconomic policy, viz., *growth, employment, stability of price and foreign exchange, and the balance-of-payment equilibrium.*³ The macroeconomic goals are determined on the basis of the economic needs of the country. Once macroeconomic goals are determined, monetary authorities decide accordingly *whether to increase or decrease the demand for and supply of money.* Then the next step is to make the choice of instruments that can effectively increase or decrease money supply with the public.

31.1.2 Scope of Monetary Policy

The scope of monetary policy spans the entire area of economic transactions involving money and the macroeconomic variables that monetary authorities can influence and alter by using the monetary policy instruments. The work-scope of monetary policy depends, by and large, on two factors:

- (i) the level of monetization of the economy, and
- (ii) the level of development of the financial market.

In a *fully monetized economy*, the scope of monetary policy encompasses the entire economic activities. In such an economy, all economic transactions are carried out with money as a medium of exchange. In that case, monetary policy works by changing the supply of and demand for money and the general price level. It is therefore capable of affecting all economic activities—production, consumption, savings and investment. The monetary policy can influence all major macro variables—*GDP, savings and investment, employment, the general price level, foreign trade and balance of payments.*

Another factor that matters in determining the scope and the effectiveness of the monetary policy is how developed and integrated is the capital-market. Some instruments of monetary control (bank rate and cash reserve ratio) work through the capital market. Where capital market is fairly developed, monetary policy affects the level of economic activities through the changes in the capital market. It works very effectively in an economy with a fully developed financial market. Incidentally, a developed financial market is one which has the following features:

- (i) there exists a large number of financially strong commercial banks, financial institutions, credit organizations, and short-term bill market,
- (ii) a major part of financial transactions are routed through the banks and the capital markets,
- (iii) the working of capital sub-markets is inter-linked and interdependent, and
- (iv) commodity sector is highly sensitive to the changes in the capital market.

Monetary weapons like bank rate and cash reserves ratio work through the commercial banks. Therefore, for the monetary policy to have a widespread impact on the economy, other capital sub-markets must have a strong financial link with the commercial banks.

³ For details, see Ch. 30.

31.2 INSTRUMENTS OF MONETARY POLICY

The instruments of monetary policy refer to the economic variables that the central bank is empowered to change at its discretion with a view to controlling and regulating the supply of and demand for money and the availability of credit. The instruments are also called '*weapons of monetary control*' Samuelson and Nordhaus call them 'The Nuts and Bolts of Monetary Policy.' Monetary instruments are generally classified under two categories: (i) General credit control measures, and (ii) Selective credit controls.

31.2.1 The General Credit Control Measures

The general measures of monetary control include the monetary weapons that aim at controlling the aggregate supply of and demand for money, given the objective of the monetary policy. As noted in the previous chapter, general credit control measures, also called as *traditional measures* of monetary control are following.

- (i) Bank rate
- (ii) Cash Reserve Ratio (*CRR*), and
- (iii) Open Market Operations

In addition to these traditional measure of monetary control, Reserve Bank of India has introduced an extra-ordinary measure, named *Statutory Liquidity Ratio (SLR)* to facilitate the government borrowing from the banks. We describe here briefly the meaning and working of these monetary measures. While discussing these aspects, brief references will be made to the RBI approach. The traditional measures of monetary control are discussed here in detail.

(i) Bank Rate Policy

'Bank rate' is the rate at which central bank lends money to the commercial bank and rediscounts the bills of exchange presented by the commercial banks. The RBI Act 1935 defines 'bank rate' as the "*standard rate at which (the bank) is prepared to buy or rediscount bills of exchange or other commercial papers eligible for purchase under this Act.*" The RBI rediscounts only the government securities, approved bills and the 'first class bills of exchange.' When commercial banks are faced with shortage of cash reserves, they approach the central bank to borrow money for short term or get their bills of exchange rediscounted. It is a general method of borrowing by the commercial banks from the central bank, the 'lender of the last resort'. The central bank rediscounts the bills presented by the commercial bank at a discount rate. This rate is traditionally called *bank rate*. Thus, *bank rate is the rate which central bank charges on the loans and advances made to the commercial banks.*

The central bank can change this rate—increase or decrease—depending on whether it wants to expand or reduce the flow of credit from the commercial banks. When it wants to increase the credit creation capacity of the commercial banks, it reduces the discount rate and when it decides to decrease the credit creation capacity of the banks, it increases the bank rate. This policy action by the central bank is called the *bank rate policy*.

Origin and Application by RBI The bank rate policy was first adopted by the Bank of England in 1839. It was the only and the most widely used weapon of credit control until the open market op-

eration, first used in 1922 in the US, emerged as a more powerful instrument of monetary control. In India, the RBI has been using the bank rate as monetary control measure, though infrequently, since its inception in 1935. The bank rate remained constant at 3% till 1950. In 1951, it was increased to 3.5% and to 4% in 1956, and remained in force till 1962. In the subsequent year, the bank rate was increased more frequently and it was raised to 12% in 1992 and was maintained till 1997. With growing need for credit facility with economy growing at 5–6% and also decreasing rate of inflation, the bank rate was reduced gradually to 6.5% in 2001, which was lowest since 1973. The bank rate was reduced to 6 per cent in 2004 which was maintained till 2006–07. However, bank rate was raised to 7.5 per cent in 2008 with the objective of controlling inflation which was as high as 11.5 per cent in July 2008. With decline in inflation below 10 per cent, bank rate was reduced to 9 per cent since 28th January 2014.

Working of the Bank Rate Policy

The *working of the bank rate policy* is simple. When the central bank changes the bank rate, commercial banks change their own discount rate accordingly with a difference of generally one percent. The change in the bank rate affects the flow of bank credit to the public. For example, if the central bank wants to reduce the money supply by reducing the flow of credit from the banks to the public, it will raise the bank rate. Raising bank rate reduces credit flow in three ways.

One, a rise in the bank rate reduces the net worth of the government bonds against which commercial banks borrow funds from the central bank. This reduces commercial banks' capacity to borrow from the central bank. As a result, commercial banks find it difficult to maintain a high cash reserve. This reduces the credit creation capacity of the commercial banks. So the flow of credit is reduced. The credit flow increases when central bank cuts down the bank rate.

Two, when the central bank raises its bank rate, commercial banks raise their discount rate too. Rise in the discount rate raises the *cost of bank credit* which discourages business firms to get their bill of exchange discounted. Also, a rise in the bank rate pushes the market interest rate structure up. If demand for credit is interest-elastic, the demand for funds decreases too. Reverse happens when the central bank cuts down the bank rate.

Three, bankers' lending rate is quickly adjusted to deposit rates. Therefore, a rise in the bank rate causes a rise in the deposit rate. Therefore, public savings flow into the banks in the form of time deposits and money with public decreases. This is called *deposit mobilization effect*. Exactly reverse happens when the central bank cuts down the bank rate.

Limitations of Bank Rate as a Weapon of Credit Control

The bank rate policy has lost its effectiveness as a weapon of monetary control over time for the following reasons.

- (a) The variation in the discount rate works effectively only when commercial banks have no alternative to borrowing from the central bank. In modern times, the commercial banks have built their financial resources. They are not dependent on the central bank for financial support. Therefore, their own discount rate is not affected when central bank raises the bank rate. In that case bank rate policy becomes ineffective.
- (b) With the growth of credit institutions and financial intermediaries, the capital market has widened extensively and the share of banking credit has declined. For example, in India,

credit created by the scheduled commercial banks had increased from Rs. 1,20,610 crore in 2003 to Rs. 2,20,498 crore—by about 85 percent—in 2006, whereas finance mobilization through the primary market had increased from Rs. 69,543 crore in 2003 to Rs. 1,61,769 crore in 2006, i.e., by 131 per cent. The growing share of the primary market (including debt, equity, private placements and Euro Issues, etc.) in the financial resources of the country reduces the effectiveness of the bank rate policy. Therefore, changes made by the central bank in the bank rate make only limited impact on the credit market especially when it raises the rate.

- (c) Looking from the credit demand angle, variations in the discount rate work effectively only where demand for credit is interest-elastic. The structure of the credit market in the less developed countries is such that the interest rates are sticky. Hence, change in the discount rate has not been found to be very effective.

India's experience, and also of most other countries, shows that bank rate policy has not proved to be very effective in achieving its goals. The important reasons for ineffectiveness of bank rate policy are (i) changing bank rate alone does not necessarily change the interest rate structure, (ii) it does not necessarily alter the banks' lending rate, (iii) 'announcement effect' of bank rate policy gives banks time leverage to make necessary adjustments in their lending policy, and (iv) making frequent changes in the bank rate, even if it is required, is not desirable especially during the expansionary phase of the economy. It is possibly for these reasons that RBI has an alternative measure, the repo rate.

However, effectiveness of bank rate varies from time to time, depending on the financial market conditions. For instance, when *RBI* raised bank rate from 6 per cent in 2006 to 7.5 per cent in 2008, most banks raised their lending rates almost immediately though its effect remained limited mainly to the realty sector.

(ii) The Cash Reserve Ratio (CRR)

The 'cash reserve ratio' (CRR), and also the 'statutory reserve ratio (SRR)', is the percentage of total bank deposits which commercial banks are required to maintain in the form of cash reserve with the central bank.⁴ The objective of cash reserve is to prevent shortage of cash for meeting the cash demand by the depositors. The cash reserve ratio (CRR) depends, normally, on the banks' experience regarding the cash demand by the depositors. But, "If there were no government rules, banks would probably keep only a very small fraction of their deposits in the form of reserves."⁵

⁴ In India, the scheduled commercial banks were required until 1956 to maintain 5 per cent of the demand liabilities and 2 per cent of the time liabilities in the forms of cash reserves. The *RBI* Amendment Act, 1956 empowered the *RBI* to vary minimum cash deposit ratio between 5 per cent and 20 per cent for demand deposits and between 2 per cent and 5 percent for time deposits. In 1962, however, this distinction between the demand and time deposits was removed and a flat rate of 3 per cent was fixed for all deposits with the provision that this could be raised to 15 per cent. The *CRR* was raised over time from 3% to 8.0% in 2000 but it was reduced to 5.5% in October 2001. However, in response to emerging conditions, *CRR* was raised to 6% in 2006–07. The *CRR* was gradually raised to 9% in the last week of September 2008 and was gradually reduced to 7.5% in the 2nd week of October 2008 to protect the economy from the global recession. It has been reduced to 4% since October 17, 2013.

⁵ Samuelson, P. A. and Nordhaus, W. D., *Economics*, 1995, *op. cit.*, p. 511.

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⁵. Samuelson, P. A. and Nordhaus, W. D., *Economics*, 1995, *op. cit.*, p. 511.

Since cash reserves are *non-interest bearing*, commercial banks often keep their cash reserves below the safe limits. This situation might lead to a financial crisis in the banking sector due to end of public faith and confidence on the bank, and hence the collapse of the banking system. In order to prevent this eventuality, the central banks impose a *CRR* on the banks. The *CRR* has proved to be a handy tool for the central bank to control money supply. The central bank enjoys the legal powers to change the cash reserve ratio of the banks. Maintaining a certain cash reserve under this provision takes the form of a *legal requirement*. Therefore, cash reserve ratio has been almost replaced practically by *statutory reserve ratio (SRR)*. The *SRR* has been discussed later in detail.

By changing the *CRR*, the central bank can change the money supply overnight. When economic conditions demand a contractionary monetary policy, the central bank raises the *CRR* and when economic conditions demand monetary expansion, the central bank cuts down the *CRR*. The effect of change in the *CRR* on the supply of money and credit creation by the banks is briefly explained here. Suppose commercial banks possess a total deposit of Rs 100 million and *CRR* is 20 per cent. It means (a) that the banks can lend money only upto Rs 80 million, and (b) that credit or deposit multiplier⁶ equals 5. Given these conditions and the process of credit creation, the banks can create, through the process of credit multiplier, a total credit of Rs 500 million or an additional credit of $Rs\ 80\ million \times 5 = Rs\ 400\ million$. Now suppose that the central bank decides to reduce the money supply with the public and it raises the *CRR* to 25 per cent. The credit multiplier will then be reduced to 4. With this provision, the banks can lend only Rs 75 million ($Rs\ 100\ million - Rs\ 25\ million$). Thus, the total credit created by the banks goes down to $Rs\ 100\ million \times 4 = Rs\ 400\ million$ and additional credit goes down to $Rs\ 75\ million \times 4 = Rs\ 300\ million$. This means a 25 per cent decline in the credit creation and a 25 per cent fall in the bank credit is supposed to have considerable impact on the money market.

(iii) Open Market Operations

The 'open market operation' is the sale and purchase of government securities and Treasury Bills⁷ by the central bank of the country. When the central bank decides to pump money into circulation,

6. The formula for deposit multiplier (D_m) is given below.

$$D_m = \frac{1}{CRR} = \frac{1}{20/100} = \frac{1}{2.0} = 5$$

The total credit creation (*TCC*) can be worked out as follows.

$$TCC = \frac{1}{CRR} (\text{Deposit}) = \frac{1}{20/100} (100 \text{ million}) = 500 \text{ million}$$

7. In India, Treasury Bills are short-term promissory notes issued by the Government of India through the Reserve Bank of India (RBI). There are two kinds of Treasury Bills—91-Day and 182-Day Bills. The 91-day Treasury Bills are issued by the RBI on behalf of the Government at fixed discount rate of 4.6%. The RBI provides rediscounting facility within 14 days of issue at an 'additional rediscounting fees.' The 182-days Treasury Bills, introduced in 1986, are sold by auction to residents of India (excluding State Governments and Provident Funds), for a minimum value of Rs 100,000. The auction bid is invited every fortnight and the 'discount rate' is decided on the basis of the auction rate. As regards the auction procedure, the auction bids invited and scrutinized by a Committee headed by the Deputy Governor of the RBI. The Committee decides on the cut-off price or the minimum official price. Bids quoting a price equal to or higher than the cut-off price are accepted; other bids are rejected.

it buys back the government securities, bills and bonds, and when it decides to reduce money in circulation, it sells the government bonds and securities. The open market operation is the most powerful and widely used tool of monetary control. First used in the US by the Federal Reserve System in 1922 has ever since been used as a major weapon of credit control in most developed countries.

The central bank carries out its open market operations through the commercial banks—it does not deal directly with the public. The buyers of the government bonds include commercial banks, financial corporations, big business corporations and individuals with high savings. These categories of buyers of government bonds hold their accounts with the banks. Therefore, when the central bank carries out its open market operations, it reduces banks deposits as money is transferred from public accounts to RBI account. Therefore, banks' capacity to create credit decreases. For instance, suppose the central bank decides to reduce the money supply with the public and the availability of credit with the objective of preventing inflation. To this end, the central bank will offer the government bonds and treasury bills for sale through the commercial banks. The task becomes easier when the government owns the commercial banks as in India. The sale of government bonds and securities affects both the *supply of* and *demand for credit*—supply of credit by affecting the credit creation capacity of the banks and demand for credit by changing the rate of interest.

The sale of government bonds, affects the *supply of credit* in the following ways.

- When people buy the government bonds and securities through the cheques drawn on the commercial banks in favour of the central bank, the money is transferred from the buyers' account to the central bank account. This reduces the total deposits with the commercial banks and also their cash reserves. As a result, credit creation capacity of commercial banks decreases and, therefore, the flow of bank credit to the society decreases.
- When commercial banks themselves decide to buy the government bonds and securities, their cash reserves go down. The fall in banks' cash reserves reduces their credit creation capacity further. The ultimate result is fall in the flow of credit to the public.

The sale of bonds reduces also the *demand for credit*. When the government sells bonds, it sells them at a reduced price, i.e., at a price less than their denominated price. Consequently, the actual rate of interest on the bonds goes up.⁸ This causes a rise in the overall interest rate structure. The rise in the rate of interest reduces the demand for credit. Thus, not only the supply of credit but also the demand for credit is reduced by the open market operations.

On the contrary, when the central bank decides to increase money supply, it buys back the government bonds and securities. In the process of transaction, money is transferred from the central bank account to the people's account with the commercial banks. As a result, deposits with the commercial banks and their cash reserves increase. This enhances their capacity to create credit. The flow of money from the banks to the public increases money supply.

Limitations of the Open Market Operations

Open market operations do not work effectively under the following conditions.

⁸ For example, if a 100-rupee bond bearing 10% interest is sold at a reduced price of Rs. 90, the rate of interest on the bond rises to $(10/90) \times 100 = 11.11$ per cent.

- (a) When commercial banks possess excess liquidity, the open market does not work effectively, especially when central bank wants to buy back bonds.
- (b) In a very buoyant market situation, the effective control of demand for credit through the open market operations is doubtful. And, during the period of depression, open market operations are not very effective for lack of demand for credit.
- (c) In underdeveloped countries where banking system is not well developed and security markets are not interdependent, open market operations have a limited effectiveness.
- (d) The popularity of government bonds and securities in the public also matters a great deal. The government debt instruments are generally not popular due to low rate of return. In recent years, however, the popularity of government bonds has increased due to increasing risk factor in the stock market.

31.2.2 Selective Credit Control Measures

Selective credit control measures are used by the central banks when the effects of general credit control measures are not desirable or are not effective. The *general credit control methods* of monetary controls affect, when they are effective, the entire credit market in the same direction. They lead either to expansion or to contraction of the total credit as intended by the monetary authorities. Besides, their impact on all the sectors of the economy is uniform. This may not be always desirable or intended by the policy-makers. The monetary authorities are often required to take policy actions for (a) rationing of credit for different sectors of the economy, (b) diverting the flow of credit from the non-priority sectors to the priority sectors, and (c) curbing speculative tendency based on the availability of bank credit. These objectives of credit control are not well served by the quantitative measures of credit control. The monetary authorities resort, therefore, to *qualitative or selective credit controls*. Some of the common selective credit controls are discussed below.

(i) Credit Rationing When there is a shortage of institutional credit available for the business sector, the highly developed and financially strong sectors and industries tend to capture the lion's share in the total institutional credit. As a result, priority sectors and essential industries are starved of necessary funds, while the bank credit goes to the non-priority sectors. In order to curb this tendency, the central bank resorts to credit rationing measures. Generally, two measures are adopted: (a) imposition of upper limits on the credit available to well-developed industries and large-scale firms, and (b) charging a higher or progressive interest rate on bank loans beyond a certain limit. This is done with a view to making bank credit available to the essential and priority sectors.

(ii) Change in Lending Margins The banks advance money more often than not against the mortgage of some asset or property—land, building, jewelry, share, stock of goods, and so on. The banks provide loans only up to a certain percentage of the value of the mortgaged property. The gap between the value of the mortgaged property and amount advanced is called 'lending margin.' For example, if value of stock is Rs 10 million and the amount advanced is only Rs 6 million, the lending margin is 40 percent. The central bank is empowered to increase the lending margin with a view to decreasing the bank credit. This method was used for the first time by the RBI in 1949 with the objective of controlling speculative activity.

in the stock market. Since 1956, the RBI has made an extensive use of this method with a view to preventing speculation in scarce agricultural products, namely, food grains, cotton, oil seeds, vegetable oil (*vanaspati*), sugar, *Khandsari* and *gur*, and cotton textiles and yarns. The speculative rise in the price of scarce agricultural products had taken place because high price of such goods could secure higher loans through mortgaging. Higher loans provided more funds to buy and accumulate the stock of the scarce agricultural commodities to be mortgaged for further borrowing. This created a kind of artificial scarcity which pushed the prices further up. By increasing the lending margin, the RBI could curb this kind of speculative borrowing. This method is no more used widely India.

(iii) Moral Suasion The moral suasion is a method of persuading and convincing the commercial banks to advance credit in accordance with the directives of the central bank in overall economic interest of the country. This method is adopted in addition to quantitative and other qualitative methods, particularly when effectiveness of other methods is doubtful. Besides, quantitative and qualitative methods are, in fact, ineffective in the underdeveloped countries with underdeveloped money and credit markets. Under this method, the central bank writes letter to and hold meetings with the banks on money and credit matters.

(iv) Direct Controls When all other methods prove ineffective, the monetary authorities resort to direct control measures with clear directive to carry out their lending activity in a specified manner. There are, however, rare instances of use of direct control measures.

31.3 TRANSMISSION MECHANISM OF MONETARY POLICY: THE PORTFOLIO ADJUSTMENT

We have discussed above the instruments, 'the nuts and bolts' of monetary policy. In this section, we discuss how changes made in the monetary policy instruments affect the monetary and real sectors and the economy as a whole.

To begin with, let us recall that the basic approach of monetary policy is to change the money supply and money demand. So the working mechanism of monetary policy has to be traced through the effects of change in money supply and demand, and their effect on real variables. How a change in money supply changes the interest rate, investment and real output has already been discussed in Chapter 19 by using *IS-LM* model. In brief, a rise in money supply shifts the *LM* curve rightward causing a fall in the interest rate. A fall in the interest rate increases investment. A rise in investment causes a rise in the level of national income. This simple analysis does not bring out the entire complex process through which an increase in money supply causes a fall in the interest rate and increase in investment spending. However, the developments in macroeconomics during the 1950s and 1960s provided a systematic theory of transmission mechanism of monetary policy, that is, the mechanism by which a change in money supply produces other changes in the monetary sector that interact with real sector to bring about a change in levels of income and prices. The central theme of the transmission mechanism is *portfolio adjustment* by the households and the firms. The portfolio adjustment theory was developed by James Tobin.⁹ The portfolio adjustment

⁹ James Tobin, "Money, Capital and Other Stores of Value," *Am. Eco. Rev.*, May 1961.

theory deals with how firms and households adjust their asset portfolio to maximize their returns when there is a change in money supply and the interest rate.

What is Portfolio Adjustment?

To appreciate fully the role of portfolio adjustment in transmission mechanism of change in money supply, let us have a quick look at the portfolio adjustment process. The portfolio adjustment refers to reallocation of total investment between the different forms of assets—cash balance, bank deposits, government bonds, treasury bills, land, building, plant and equipments, shares, debentures, and so on. The need for adjustment in portfolio arises due to change in money as wealth, which causes disequilibrium in portfolio. To look at this point more closely, let us suppose that the portfolios of both the households and the firms are given at a point of time, given the money supply and asset preferences. Their portfolio consists of (a) cash balance (nominal wealth), (b) financial assets including government bonds and securities, corporate shares and debentures, bank deposits, LIC policy, and (c) real assets like land, building, gold, machinery, plant and equipments. When there is a change in money supply, and in the determinants of portfolio, viz. rates of interest and returns, the portfolio balance is disturbed. For example, other things remaining the same, when money supply increases, cash balance the non-earning asset with the people increases. As a result, the proportion of non-earning asset in the asset portfolio increases. The increase in the proportion of idle cash balance (a non-earning form of wealth) in the portfolio makes the portfolio-balance inoptimal. This is called *disequilibrium in portfolio balances*.

Disequilibrium in portfolio makes asset-holders to adjust their portfolio to regain their equilibrium position. This is called *portfolio adjustment process*. It is in this process of adjustment that the equilibrium levels of incomes and prices change. The economists of different schools of thought, especially the Keynesians and the monetarists, hold different views on the process of portfolio adjustments and its effect on the levels of income and prices. The Keynesian and Monetarist approaches to portfolio adjustment process are discussed below.

The Keynesian Approach to Portfolio Adjustment

The Keynesian approach is basically Tobin's portfolio adjustment approach. It traces the effect of change in money supply on the levels of income and prices through the process of portfolio adjustment. As mentioned above, when money supply increases, the idle cash balance with the public increases. The increase in the proportion of non-earning assets in the portfolio, causes a temporary imbalance in the optimum portfolio. So the households and firms try to readjust their portfolio. In the process of adjustment, they tend to increase their investment in financial assets such as bonds and securities, share and debentures, and so on, *not in the real assets*. This point is of specific importance because it is at this point that monetarists deviate (as discussed below) from the Keynesian approach in portfolio adjustment. According to the Keynesian approach, increase in demand for financial assets pushes the prices of financial assets up. As a result, the interest rate goes down. Fall in the interest rate increases investment in productive assets which increases the level of income. Increase in incomes causes a rise in the aggregate demand—on account of increase in both investment and consumer demand. The upward shift in the aggregate demand results in further increase in the equilibrium level of income. The process continues until new equilibrium point is attained.

The Monetarist Approach to Portfolio Adjustment

The monetarists trace the effect of change in money supply on the level of income much the same way as the Keynesians do, that is, through the process of portfolio adjustments. The monetarists, however, deviate from the Keynesians at the point of making choice between the cash balance and other forms of assets. While Keynesians treat *cash balance* and *financial assets* as close substitutes, monetarists treat *cash balance* and *real assets* as close substitutes. Recall that in the Keynesian analysis, the transmission process works through the change in demand for *financial assets* and the change in the interest rate. In contrast, in the monetarist analysis, change in cash balance changes the demand for *real assets*, not the financial assets. The ultimate result is the same, i.e., the change in the aggregate demand. The distinction between the Keynesian and monetarists approaches is illustrated below *assuming an increase in money supply*.

Keynesian Process *Increase in money supply → increase in cash balance → increase in demand for financial assets → fall in the interest rate → increase in investment → increase in the aggregate demand.*

Monetarist Process *Increase in money supply → increase in cash balance → increase in demand for real assets → increase in aggregate demand.*

The significant difference between the two approaches can be highlighted as follows. *In the Keynesian approach, aggregate demand changes due to change in the interest rate, whereas in the monetarist approach, the aggregate demand can change without change in the interest rate.* It must also be noted that the distinction between the two approaches is only of the process, not of the end result—the end result is the same i.e., *the increase in aggregate demand*.

31.4 THE LIMITATIONS AND EFFECTIVENESS OF MONETARY POLICY

The effectiveness of monetary policy depends on certain factors, viz., time lag in factor reaction, problems in making forecasts, reaction of non-banking financial intermediaries, and the underdevelopment of capital markets. These factors are known as the limiting factors of monetary policy as discussed below.

(i) The Time Lag¹⁰

The first and the most important limitation in effective working of monetary policy is the *time lag*, i.e., the time taken in chalking out the policy action, its implementation and response time. The time lag is divided in two parts: (i) 'inside lag' or preparatory lag, and (ii) 'outside lag' or response lag. The *inside lag* refers to the time lost in (a) identifying the nature of the problem, (b) identifying the sources of the problem, (c) assessing the magnitude of the problem, (d) choice of appropriate policy action, and (d) implementation of policy actions. The *outside lag* refers to the time taken by the households and the firms to react to the policy action taken by the monetary authorities.

¹⁰ For a comprehensive analysis of time lag in monetary policy, see Michael J. Hamberger, "The Lag in the Effect of Monetary Policy: A Survey of Recent Literature," *Federal Reserve Bank of New York Monthly Review*, December 1971.

If preparatory and operational lags are long, not only the nature and the magnitude of the problem may change rendering the policy ineffective, but also it may worsen the situation. It has been the experience of many countries including developed ones that both inside and outside lags have been unduly long, making monetary policy less effective than expected. The time lag of monetary policy, particularly its response lag, has been found to be generally longer than the time lag of fiscal policy. However, the issue of time lag in case of monetary policy is controversial. Friedman and Schwartz find an average time lag of 18 months between peaks (troughs) of money supply and peaks (troughs) of business cycle. Their findings have been questioned by the findings of other economists.¹¹ However, 'the evidence from several sources suggest that the lag associated with monetary policy is long and possibly variable'¹² and 'the consensus seems to be that the lag is about 12 to 16 months long.'¹³

(ii) Problems in Forecasting the Magnitude of the Problem

The formulation of an appropriate monetary policy requires that the magnitude of the problem—recession or inflation—is correctly assessed, as it helps in determining the dose of the medicine. What is more important is to forecast the effects of monetary actions. In spite of advances made in the forecasting techniques, reliable forecasting of macroeconomic variables remains an enigma. In this regard, it is interesting to quote Stephen McNees.¹⁴

"How can forecasters go wrong? They may not predict disturbances (the Gulf War, for example); they may misread the current state of the economy and hence base their forecasts on a wrong picture of the present situation; and they may misjudge the timings and the vigour of the government's monetary and fiscal responses to booms or recessions. The fact is that forecasting has not reached perfection, particularly at major turning points in the economy,"

Because of the low degree of reliability of forecasting, prediction of the outcome of a policy action and hence formulation of an appropriate monetary policy has remained an extremely difficult task. This point has been adequately evidenced by unpredictability of recession in the US economy and inflation in India, both in 2008. An inappropriate policy based on guesswork is bound to be unsatisfactorily effective. There is a large empirical evidence to support this point of view.

(iii) Growth of Non-banking Financial Intermediaries

Apart from the above limitations of the monetary policy, the structural change in the financial market due to rapid growth of non-banking financial intermediaries has reduced the scope of effectiveness of this policy. The proliferation of non-banking financial intermediaries including industrial financial corporations, industrial development banks, mutual saving funds, insurance companies, chits and funds, and so on, have reduced the share of the commercial banks in the

^{11.} For details, see Michael R. Edgmand, *Macroeconomics: Theory and Policy* (Prentice-Hall of India, 2nd Edn., 1985), Ch.18.

^{12.} Michael R. Edgmand, *op. cit.*, p. 373.

^{13.} Fried R. Glahe, *Macroeconomics: Theory and Policy* (Harcourt Brace Jovanovich, Inc., New York, 1973), p. 287.

^{14.} Stephen McNees, "How Large Are Economic Forecast Errors?", *New England Economic Review*, July-August 1992, part reproduced in Rudiger Dornbusch and Stanley Fischer, *Macroeconomics*, *op. cit.*, p. 456.

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total credit. Although financial intermediaries cannot create credit through the process of credit multiplier, their huge share in the financial operations reduces the effectiveness of monetary policy which works through the banking finance.

(iv) Underdeveloped Money and Capital Markets

In addition to the factors discussed above, the effectiveness of monetary policy in the less developed countries is reduced considerably because of the underdeveloped character of their money and capital markets. The money and capital markets are fragmented, while effective working of monetary policy requires a fairly developed money market and that money market and the sub-markets of the capital market are interactive and work interdependently.

31.5 MONETARY POLICY OF INDIA

We have discussed above the meaning, scope, instruments and working mechanism of monetary policy in a general framework and have also used examples of monetary measures adopted by the RBI. In this section, we take a look at India's monetary policy including its objectives, instruments and targets.

The RBI, the central monetary authority of India, has been changing the objectives and their priorities of its monetary policy from time to time in accordance with the needs of the country. The RBI has, in fact, managed monetary affairs of the country, especially the control, regulation and allocation of bank credit as and when required by the needs of the country. However, RBI's monetary policy has not been found to be working very effectively. The reason was that the RBI was severely constrained by the growing deficit financing by the Government of India. A comprehensive knowledge of India's monetary policy and its working in the recent past can be had from the Chakravarty Committee Report,¹⁵ the writings of C. Rangarajan,¹⁶ a former Governor of RBI and Rakesh Mohan,¹⁷ Deputy Governor of RBI.

31.5.1 Monetary Policy Objectives

As already noted above, monetary policy being an organ of the overall economic policy, its objectives could not be different from or be in conflict with the overall objectives of other economic policies of the country. The three major objectives of India's overall economic policy have been (i) economic growth, (ii) social justice, i.e., an equitable distribution of income, and (iii) price stability. Of these objectives, *growth* and *price stability* have been in general the objectives of India's monetary policy. Of these two objectives, however, Chakravarty Committee considered promoting price stability as 'the dominant objective of the monetary policy' (Report, p. 9.25).

¹⁵ The Working Committee to Review the Working of the Monetary System (1985), set up by the RBI in 1982 under the Chairmanship of Prof. Sukhmoy Chakravarty. C. Rangarajan, the then Governor of the RBI, was a member of the Committee.

¹⁶ "Issues in Monetary Management" and "Monetary Policy Revisited" in his *Indian Economy: Essays on Money and Finance* (UBS Publishers' Distributors Ltd, New Delhi, 1998).

¹⁷ "The Role of Fiscal and Monetary Policies in Sustaining Growth with Stability in India", *RBI Bulletin*, December 2008.

For, in the Committee's opinion, "It is price stability which provides the appropriate environment under which growth can occur and social justice can be ensured".¹⁸ "The case for price stability as the dominant objective of monetary policy began to assume importance in the early 1990s".... In essence [however], monetary policy aims to maintain a judicious balance between price stability and economic growth".¹⁹

However, macroeconomic conditions of the country—especially the financial structure of the country, demand for and supply of money and the nature of monetary management needs of the country—have been changing over time. Therefore, the objectives of monetary policy and instruments of monetary control and management issues have also been changing, though *price stabilization* remained the central theme of India's monetary policy. In simple words, with changing economic conditions of the country, the RBI has been changing *monetary policy objectives*, and it has been using a combination of *monetary policy instruments* to achieve its targets. We discuss here briefly the objectives of monetary policy and instruments adopted by the RBI to achieve its objective.

Price Stabilization: The Main Target As mentioned above, price stabilization—specifically speaking, controlling inflation—has been the prime objective of RBI's monetary policy. The reason for price stabilization being the main objective of monetary policy was that the country has been under inflationary pressure since the Second Plan Period. The inflation rate was around 6 per cent on y-t-y basis, though it had shot up to 12 per cent during the period from 1971 to 1976. The main cause of inflationary pressure was deficit financing—a fiscal measure—adopted by the Government of India (GOI) to finance the development programmes. As a result, money supply was increasing at a faster rate (16–17 per cent p.a) against low economic growth (3–4 per cent p.a) causing inflation. However, the Chakravarty Committee emphasized the importance of controlling growth of money supply. The Committee suggested that the growth of money supply should be regulated with the objective of maintaining price stability in compliance with the Plan objective of output growth, even thought price level is affected by several non-monetary factors. In order to control inflation to an acceptable level, the RBI adopted measures to control monetary expansion, at the same time making bank credit available for private investment at a reasonable interest rate.

The question that arises here is: What rate of inflation would comply with Plan objective of growth rate? The Chakravarty Committee (1985) had examined the issue at both theoretical and empirically levels and had recommended an annual inflation rate of 4 per cent which was, in its opinion, socially tolerable and conducive to growth. However, since India has had only "moderate inflation"—crossing double digit rarely—"inflation targeting" is not considered to be an appropriate objective of monetary policy of India.

Let us look at the inflationary pressure that India has faced from time to time. The inflation rates in India are given in Table 31.1 – quinquennial rates²⁰ for the period from 1956-57 to 2000-01 and annual average rate for the subsequent years. As the table shows, India had inflation rate of about

^{18.} C. Rangarajan, *op. cit.*, p. 6.

^{19.} Rakesh Mohan, *op. cit.*, pp. 2097–98.

^{20.} The annual rate of Inflation for the period is given in Appendix to this chapter – Appendix 31.1

6 per cent during the period from 1956-57 to 1970-71. The average rate of inflation during the period 1971-76 had shot up to 12 per cent—the highest rate of inflation India had witnessed till then. The inflation rate, however, declined thereafter and averaged 7.5 per cent till 1990-91. But the quinquennial average inflation rate shot up again to 10.6 per cent. This was the second phase of high inflation in India. Since 1996-97, however, the rate of inflation declined and remained stable around 5 per cent till 2007. This rate of inflation was close to the Chakravarty Committee recommendation. But, on 5th July 2008, the inflation rate shot up again to about 12 per cent (11.91% to be precise) which is considered to be the highest in the past 13 years. The inflation record shows the inflation rate could hardly be ever maintained to the level of the rate recommended by the Chakraverty Committee. It is understandable, as C. Rangarajan (the then member of the Chakraverty Committee and the Governor of RBI), had remarked, "absolute price stability is not feasible in a large and complex economy undergoing structural transformation. Imbalances to some extent are inevitable."²¹ But, the 'imbalance' in India's price stability, as shown by the fluctuation in the inflation rate, has often been so high – except, of course, during 2000-2006 – that it can hardly be explained by transitional factors. So much so that inflation rate had turned to deflation of 1.21 per cent in July 2009. However, as can be seen in Table 31.1, high rate of increase in money supply was the main reason for the high rate of inflation, especially during the period from 1970-71 to 1995-96. Since 2001-02, however, the rate of inflation was lower despite a high rate of increase in money supply, though the trend reversed later.

Table 31.1 Money Supply and Inflation in India (5-year Average based on WPI)

Period	Rate of Increase in Money	Rate of Inflation (%)
	Supply (%)	(52-Week Average)
Five-year Average		
1956-57 to 1960-61	6.0	6.3
1961-62 to 1965-66	9.4	5.8
1966-67 to 1970-71	14.4	6.7
1971-72 to 1975-76	16.0	12.0
1976-77 to 1980-81	19.2	8.5
1981-82 to 1985-86	16.9	6.5
1986-87 to 1990-91	17.7	7.8
1991-92 to 1995-96	17.5	10.6
1996-97 to 2000-01	16.0	5.0
2001-02 to 2005-06	15.3	4.7
Annual		

Contd.

²¹ Rangarajan, C., "The Analytical Framework of the Chakraverty Committee Report on the Monetary System", *Reserve Bank of India Bulletin*, September 1987, p. 702.

reserve which banks maintain as 'cash in hand' with the purpose of meeting the currency demand by the depositors. The excess reserves are determined generally by the bank's own experience regarding the 'currency drain'.

(As regards the use of the *CRR* method as monetary control, the RBI used this method till 1973, only once in 1960. However, As shown in Table 31.3, since 1973, the RBI has been using *CRR* quite frequently as a major instrument of controlling the excess supply of money. The RBI had maintained the statutory *CRR* at 3 per cent fixed in 1935. But, after 25 years, the RBI raised the bank rate to 5 per cent in 1960, Thereafter, the bank rate was raised frequently due to rising inflationary pressure. As a result, the bank rate had gone up to 15 per cent in July 1989. This rate was maintained till 1994. But, since 1995, the *CRR* has been regularly reduced by the RBI until January 2006, as shown in Table 31.3. However, due to rising inflationary pressure in the economy, the RBI began to raise the *CRR* and raised it 8.75% in July 2008. With inflation rate declining, the RBI cut down the *CRR* to 5 per cent in June 2009. The *CRR* was cut down further and it is maintained at 4 per cent till November 2014.)

Table 31.3 Changes Made in CRR

Month and Year	CRR (%)
1994-95	15.00
November 1995	14.50
December 1995	14.00
May 1996	13.00
July 1996	12.00
January 1997	10.00
February 2001	7.50
March 2001	7.00
October 2001	6.50
October 2002	6.25
June 2003	4.50
March 2005 to Jan. 2006	5.00
April 2007	6.50
July 2008	8.75
December 2010	6.00
October 2011	6.00
December 2012	4.25
November 2013	4.00
November 2014	4.00

3. Statutory Liquidity Ratio (*SLR*)

In addition to *CRR*, the RBI was empowered to impose 'statutory cash reserve ratio' (*SLR*) to control and regulate the credit creation by the banks for the private sector and the availability of

finance to the government. Under the *SLR* scheme, the commercial banks are required by statute to maintain a certain percentage of their total daily demand and time deposits in the form of liquid assets. Liquid assets, as specified by the RBI, include (i) excess cash reserves, (ii) unencumbered government securities, e.g., bonds of IDBI, NABARD, Development banks, cooperative debentures, debentures of port trusts, etc., and (iii) current account balance with other banks. The method of determining the *SLR* can be specified as follows.

$$SLR = \frac{ER + GS + CB}{DD + TD}$$

where *ER* = excess reserves, *GS* = Government (unencumbered) securities, *CB* = current account balance with other banks, *DD* = demand deposits, and *TD* = time deposits.

The basic purpose of using *SLR* was to prevent the commercial banks from going for liquidating their assets when *CRR* was raised to control money supply. Prior to implementation of *SLR*, when *CRR* was raised, what commercial banks used to do was to convert their liquid assets into cash to replenish the fall in their funds due to the rise in the *CRR* and maintained their credit creation ability. This made monetary policy ineffective. The *SLR*, as a tool of monetary control, works in two ways: (i) it provides an alternative to the borrowing of the government from the RBI, and (ii) it affects banks' freedom of buying and selling the government bonds. In both ways, it affects the money supply, depending on whether the RBI wants to control or enhance the money supply. When the intention is to increase money supply, the RBI reduces the *SLR* and when it wants to reduce the money supply with the public, it increases the *SLR*.

The *SLR* was first imposed in 1949, and was fixed at 20 per cent, and remained unchanged till August 1964. In September 1964, the *SLR* was raised to 25 per cent and was maintained at the same level till September 1970. Since then, the *SLR* has been raised quite frequently as shown below. The *SLR* was raised in September 1990 to 38.5 per cent – very close to the prescribed upper limit of 40 per cent. The *SLR*, as tool of monetary control, has, in fact, been used as a monetary-fiscal tool. The deficit financing method of financing government budget led to rapid increase in money supply which continued to build inflationary pressure in the economy. The RBI now uses the *SLR* for controlling the short-term money supply. The use of *SLR* restricted the flow of funds from the banks to the private sector. Since 1992, however, the *SLR* has been gradually reduced. It was reduced to 25 per cent in April 1992, mainly because the rate of inflation had declined to around 5 per cent in the early 1990s. The *SLR* continues to be maintained at 25 per cent.

Year	SLR (%)	Period	SLR (%)
1971	25.0	Nov. 2009–Nov. 2010	25
1972	30.0	Dec. 2010–Jan 2012	24
1973	32.0	Aug. 2012–Nov. 2013	23
1974	33.0	Oct. 2013 onwards	22
1978	34.0		
1990	34.5		
1992	25.0		
2009	25.0		

4. Open Market Operations (OMO)

In developed countries like the USA and the UK, open market operation is considered to be a very powerful and efficient tool of monetary management. But in India, the open market operation has not been until recently a successful instrument of monetary management for the following reasons.

- (i) In India, the security market, especially the Treasury bill market, is not yet well developed and fully organized, and the Government securities market is almost non-existent; and
- (ii) The government bonds were earlier not very popular because of low rate of return. The rates were much lower than the market rate of interest.

It is for these reasons that open market operation was not used until the mid 1980s to control money supply, nor was this tool effective when used. In fact, open market operation was not used during the 1970s and the first half of the 1980s. The open market operation was not effective in India and also in other developing economies. In a nutshell, open market operation did not prove to be a very successful tool of monetary control in developing countries. However, some important changes were made in India on the recommendations of the Chakravarty Committee (1985). The interest rate on Government securities was raised during the late 1980s and scheduled commercial banks were granted freedom to determine their own prime lending rates. These two factors made open market operation a fairly effective tool to control short-term credit.

After the economic reforms of 1991–92, OMO was assigned a greater role in monetary management. “Since the onset of reforms,..., the Reserve Bank reactivated open market operations (OMO) as an instrument of monetary management.... Active use of OMO for mitigating inflationary pressures was undertaken during 1993–1995 in the wake of unprecedented capital flows...”²³. The OMO is now being used as an important measure to ensure good liquidity management.

5. The Repo Rate: A New Monetary Tool

Till the late 1980s, the RBI had been using the traditional methods of monetary control. However, as mentioned above, on the recommendations of the Chakravarty Committee (1985), some important changes were made in the monetary policy. However, some major changes were introduced in the monetary policy only after the foreign exchange crisis of 1990 and subsequent economic reforms. But the major problem that the RBI continued to face was to control and regulate the high rise in money supply. The high rise in money supply throughout was mainly due to monetization of the government’s deficit financing. It was in 1991 that the World Bank and the IMF—the World Bodies that bailed India out of the foreign exchange crisis—exerted pressure on the government to make certain major economic reforms including monetary reforms. Some major monetary reforms and some new tools of monetary management were introduced including the repo rate. We describe here briefly a new monetary tool that is often used by the RBI, i.e., Repurchase Operation Rate – the repo rate.

In April 1997, the RBI introduced a new system, called Repurchase Operation Rate (abbreviated as repo rate), to manage the short-run liquidity of the banking system. As mentioned above, under the SLR system, the commercial banks are required to invest a certain percentage of their

²³ Rakesh Mohan, *op. cit.* pp. 2102–03.

demand and time deposits in government securities. This system blocks the bank money with the RBI, often causing liquidity problem. The repo system provides a solution to this problem of liquidity. Under the repo system, the RBI buys securities back from the banks and, thereby provides funds to the banks. It is a form of lending money to the banks for a short period 1–14 days. The rate of interest at which the RBI lends money to the bank is the *repo rate*. In contrast, there is *reverse repo rate*. The reverse repo rate is the rate at which the banks can buy the securities or deposit money with the RBI.

The operational rule of the repo rate is quite simple. When the central bank aims at increasing liquidity or money supply, it buys back the securities at a low repo rate. This increase the funds with commercial banks which can be used to create credit. On the other hand, when the objective is to control the money supply, the RBI uses the reverse repo rate and increases the repo rate. In June 1998, the repo rate was fixed at 5 per cent. However, due to anticipated increase in liquidity via Resurgent India bonds and East Asian crisis, the repo rate was raised to 8 per cent in August 1998. But it was later reduced gradually to 4.5 per cent in 2004, to 5 per cent on April 28, 2005, and to 6.25 per cent on October 26, 2006. However, due to mounting inflationary pressure in the economy, repo rate was increased to 7.25 per cent in 2006-07. Along with the changes made in the repo rate, the reverse repo rate was also simultaneously raised. In 2008, the Indian economy was facing a 13-year high rate of inflation which was touching 12 per cent. With the objective of controlling inflation, the RBI kept increasing the repo rate. On July 29, 2008, the RBI raised the repo rate from 8.5 per cent in the previous week to 9 per cent. The RBI has been changing the repo rate. It was decreased from 9 per cent to 7.75 per cent in 2013 and then raised to 8 per cent in November 2014.

31.5.3 Evaluation of India's Monetary Policy

At the end of the discussion, the question that arises is: Has the monetary policy of India been successful? This question takes us to the evaluation of monetary policy. Monetary policy, or any policy for that matter, has to be evaluated by examining whether its objectives have been achieved over time. As mentioned above, on the recommendation of the Chakravarty Committee, the RBI had adopted 'price stability', i.e., controlling inflation, as the 'dominant objective of the monetary policy', while at the same time, maintaining an adequate liquidity in the economy. The question arises here is: Price stability at what rate of inflation? This question arises because some inflation is inevitable in a growing economy like India. It is, perhaps, in view of this fact that the Chakravarty Committee had recommendation price stability at 4 per cent rate of inflation. Even other economists have suggested, on empirical basis, that a 3-5 per cent annual inflation is desirable for developing economy.

Examined against the price stability objective at about 4 percent, India's monetary policy appears to be only *partially successful*. Instead of looking at annual variation in the inflation rate, let us look at decennial rate of inflation to examine the effectiveness of monetary policy.

In India, inflationary pressure started building up during the 1960s, due to the Chinese war in 1962, the Pakistan war in 1965, and near-famine conditions in 1965-66. As a result, inflationary pressure started mounting from 1962-63, and inflation rate shot up to 13.9% in 1966-67. The decennial average rate of the 1960s was worked out at 6.4 per cent.

The things were much worse in the 1970s. The inflation rate during the 1970s was much higher – the highest rate during the period was 25.2 per cent in 1974-75. This has been the highest rate of inflation in India so far. The decennial average inflation rate was 9 per cent, due mainly, to the failure of the *kharif* crop and rise in oil prices. Incidentally, these aspects fall outside the scope of monetary controls.

During the 1980s, things improved marginally. The decennial rate of inflation declined from 9 per cent during the 1970s to 8 per cent during the 1980s, with the highest inflation rate of 18.2 per cent in 1980-81. However, there was an upsurge of inflationary pressure during the first five years of 1990s. The average rate of inflation during the period from 1990-91 to 1995-96 was worked out at 10.6 per cent. Thereafter, however, the inflation rate declined considerably. The inflation rate varied between 3.4 per cent in 2002-03 and 6.4 per cent in 2004-05. The annual average rate of inflation during the period from 1995-96 to 2006-07 works out to be 5 per cent. This was quite close to the economically and socially desirable rate of inflation (See Table A.31.1).

If one compares the high rate of inflation (varying between 6% and 10%), one would conclude that during the entire period from 1960-61 to 1995-96, i.e., during a period of 35 years, the monetary policy was unsuccessful in achieving its objectives. Although during the period from 1995-96 to 2006-07, inflation rate was quite within the desirable limit 4-5%, it can hardly be attributed to the monetary policy. The lower rate of inflation was mainly due to high growth rate—7-9 per cent. The only point that goes in favour of the monetary policy is the fact that things might be much worse in the absence of monetary controls adopted by the RBI. What is alarming is the fact that, in spite of all monetary measures, inflation rate shot up to about 12 per cent—to be precise, 11.98 per cent—in June-July 2008. However, had RBI not adopted a monetary policy with prime objective of price stabilization, inflation rate could have been much higher.

It may be added at the end that inflation rate has been within the desirable limit (5%) during the period from 1995-96 to 2006-07, which can be attributed to the monetary policy. It may be argued that the lower rate of inflation was mainly due to high growth rate. But then maintaining a reasonably high growth rate was also the second most important objective of the monetary policy. It may thus be concluded that monetary policy of India has been only fairly successful.

The Current Status The growth rate has been predicted to be 5.6 per cent in 2014 and inflation rate 6-7 per cent. The RBI is under the pressure from the government agencies and business agencies to reduce the interest rate. But the RBI is resisting on cutting down the interest rates at it might aggravate inflation in the country. In the opinion of many economists, the RBI approach is justified.

Suggested Reading

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Questions for Review

1. What is meant by monetary policy? How does it differ from fiscal policy?
2. Describe the instruments of monetary policy. How do they work and what are their limitations?
3. Distinguish between total credit control and selective credit control measures of monetary control. Under what conditions are the qualitative controls preferred to quantitative controls?
4. What is open market operation? How does it work to affect the money supply? Why is this measure considered to be more effective than other measures of monetary control?
5. Explain the transmission mechanism of monetary policy. How does a change in money supply changes the levels of income and prices? What is portfolio adjustment? How does Keynesian approach in this regard differ from the monetarist approach?
6. What are the factors that determine the effectiveness of monetary policy? How does empirical evidence corroborate with theoretical propositions?
7. What is meant by 'time lag'? How does it affect the effectiveness of monetary policy?
8. What are the limitations of the monetary policy in developed and less developed economies? Why is monetary policy less effective in the developing economies?
9. What are the objectives of India's monetary policy? Have the policy measures used by the RBI been effective in achieving the policy targets?
10. What monetary measures have been used by the RBI to control in the country? Which of the measures proved to be more effective.
11. Price stabilization has been the dominant objective of India's monetary policy. Has the RBI succeeded in stabilizing the price level at a desirable level.
12. Inflation rate in India touched 12 per cent in July 2008. What was the dilemma faced by the RBI and the government in adopting strong measures for controlling inflation. Explain in detail.

APPENDIX TO CHAPTER 31

**Table A31.1 Growth in Money Supply (M_3) and Rate of Inflation: 1950-51 to 2013-14
(52-week average)**

Year	Rise in Money	Inflation	Year	Rise in Money	Inflation
	Supply (%)	(%)		Supply (%)	(%)
1950-51	—	-5.1	1993-94	18.4	8.4
1955-56	6.0	6.6	1994-95	22.4	12.6
1960-61	7.0	0.2	1995-96 ^s	13.6	8.0
1965-66	11.6	7.7	1996-97	16.0	4.6
1970-71	17.4	5.5	1997-98	17.0	5.0
1975-76	14.5	-1.1@	1998-99	19.4	6.9
1977-78	20.6	5.2	1999-00	16.6	3.3
1979-80	17.6	17.1	2000-01	16.8	7.2
1980-81	18.3	18.2	2001-02	14.4	3.6
1981-82	12.8	11.3	2002-03	14.7	3.4
1982-83	16.7	4.9	2003-04	16.8	5.5
1983-84	17.9	7.5	2004-05	12.3	6.4
1984-85	18.7	6.5	2005-06	17.0	4.4
1985-86	16.1	4.7	2006-07	21.3	5.4
1986-87	18.8	5.8	2007-08	21.2	4.7
1987-88	15.3	9.4	2008-09	18.4	8.4
1988-89	18.4	6.3	2009-10	16.8	3.8
1989-90	19.9	8.1	2010-11	16.2	9.6
1990-91	14.9	10.3	2011-12	15.8	8.9
1991-92	19.3	13.5	2012-13	13.8	7.5
1992-93	14.8	10.1	2013-14	13.3	6.0

@ The negative rate of inflation in 1975-76 was the result of very severe direct price control imposed on the economy due to an unprecedented rate of inflation (25.2%) in 1974-75, by the then PM, Mrs. Indira Gandhi.

^s Inflation data since 1995-96 onwards is based on WPI 1993-94 = 100.

Sources: (i) Data on Money Supply and inflation rate for the period from 1950-51 to 1970-71 compiled from Center for Monitoring Indian Economy (CMIE), *Basic Statistics Relating to the Indian Economy*, August 1993, (ii) the money supply growth rate for period 1961-62 to 1989-90 computed from money supply data published in Narendra Jadhav, *Monetary Economics for India* (Macmillan India, Delhi, 1994, pp. 241 and 245, and (iii) The data on money supply and inflation rate have been compiled from different issues of *Economic Survey*, MOF, GOI.

CHAPTER 32

Fiscal Policy

INTRODUCTION

Reference to fiscal policy has been made at several points in the previous chapters. There our discussion was confined to measuring theoretically the effect of the changes made in the fiscal policy. Some important questions remain unanswered: How does fiscal policy work to achieve its objectives? Does it work effectively, and what are its limitations? How fiscal policy measures—the change in government spending and taxation—affects the equilibrium level of output and employment have already been discussed in Chapter 18 in the framework of the *IS-LM* model. In this chapter, as noted above, we discuss in detail four aspects of fiscal policy:

- (i) Meaning and scope of the fiscal policy,
- (ii) Working of the fiscal policy,
- (iii) Use of the fiscal measures for achieving the macroeconomic goals, and
- (iv) Limitations of fiscal policy.

These aspects of fiscal policy are first discussed in the theoretical mode. At the end, we present a brief discussion on India's fiscal policy and its effectiveness. Let us begin with a fresh look at the meaning and origin of the fiscal policy.

32.1 MEANING AND SCOPE OF FISCAL POLICY

32.1.1 Meaning of Fiscal Policy

The word 'fisc' means 'state treasury' and 'fiscal policy' means the policy of using 'state treasury' or the government finance to achieve certain macroeconomic goals. Fiscal policy has been variously defined by the economists. Arthur Smithies defined fiscal policy as "a policy under which government uses its expenditure and revenue programs to produce desirable effects and avoid undesirable effects on the national income, production, and employment."¹ G.K. Shaw, a well-known expert on the subject, defines fiscal policy as "any decision to change the level, composition or timing of government expenditure or to vary the burden, structure or frequency of the tax payment."² Shaw's definition presumes that national economic goals are given. Samuelson and Nordhaus offer a more comprehensive definition of fiscal policy. By fiscal policy

¹ Arthur Smithies, "Fiscal Budgeting and Fiscal Policy," in *A Survey of Contemporary Economics*, Vol. I (The Blakiston Co., Philadelphia, 1949), p. 174.

² G. K. Shaw, *An Introduction to the Theory of Economic Policy*, Macmillan 1971, p. 87.

they "mean the process of shaping taxation and public expenditure to help dampen the swings of the business cycle and contribute to the maintenance of a growing, high-employment economy, free from high or volatile inflation."³ In their opinion, the role of fiscal policy is confined largely to stabilization of employment and the price level. It seems, they have defined fiscal policy keeping in view the problems of the developed countries. Fiscal policy can be defined in more general terms as follows. *Fiscal policy is the government programme of making discretionary changes in the pattern and level of its expenditure, taxation and borrowings in order to achieve certain economic goals such as economic growth, employment, income equality, and stabilization of the economy on a growth path.*

A narrow concept of fiscal policy is *budgetary policy*. While *budgetary policy* refers to current revenue and expenditure of the financial year, fiscal policy refers to budgetary operations including both current and capital receipts and expenditure. The essence of fiscal policy lies, in fact, in the budgetary operations of the government. The two sides of the government budget are *receipts* and *expenditure*. The *total receipts* of the government are constituted of tax and non-tax revenue and borrowings (including deficit financing). These items in the budget represent the budgetary resources of the government. The *government expenditure* refers to the total expenditure made by the government in the fiscal year. The total government expenditure consists of payments for goods and services, wages and salaries, interest and loan repayments, subsidies, pensions and grants-in-aid, public investment, and so on. From economic analysis point of view, receipt items give the measure of the flow of money from the private sector to the government sector. The government expenditure, on the other hand, represents the flow of money from the government to the economy as a whole. The government receipts are *inflows* and expenditures are *outflows*.

By using its statutory powers, the government can, change the magnitude and composition of inflows and outflows and thereby the magnitudes of macroeconomic variables—aggregate consumption expenditure and private savings and investment. The magnitude and composition of inflows and outflows can be altered by making changes in taxation and government spending. The policy under which these changes are made is called *fiscal policy*.

32.1.2 The Scope of Fiscal Policy

The scope of fiscal policy comprises the *fiscal instruments* and the *target variables*. *Fiscal instruments* are the variables that government can use and maneuver at its own discretion to achieve certain economic goals. *Fiscal instruments* include taxation (direct and indirect), government expenditure, transfer payments (grants and subsidies) and public investment. The *target variables* are the macro variables including disposable income, aggregate consumption expenditure, savings and investment, imports and exports, and the level and structure of prices. The fiscal policy instruments and target variables are discussed below in detail.

32.2 FISCAL INSTRUMENTS AND TARGET VARIABLES

Fiscal policy is implemented through fiscal instruments also called 'fiscal handles', 'fiscal tools' and 'fiscal levers'. The changes made in fiscal tools work through their linkage to the target variables. The fiscal policy instruments and target variables are briefly described below.

³ Samuelson, P. A. and Nordhaus, W. D., *Economics* (McGraw-Hill, NY, 15th Edn., 1995), p. 626.

32.2.1 Fiscal Instruments

Fiscal instruments refer to the budgetary measures which the government uses and manipulates to achieve some predetermined objectives. The major fiscal instruments include the following measures.

- (i) Budgetary policy—deficit or surplus budgeting,
- (ii) Government expenditure,
- (iii) Taxation, and
- (iv) Public borrowings.

The features and the working of these fiscal instruments are briefly described here.

(i) Budgetary Policy

In narrow sense of the term, budgetary policy refers to government's plan to keep its budget in balance or in surplus or in deficit. This kind of budgeting is in itself a fiscal instrument. When the government keeps its total expenditure equal to its revenue, as a matter of policy, it means it has adopted a *balanced-budget policy*. When the government decides to spend more than its expected revenue, as a matter of policy, the government has a budgetary deficit. In that case, the government is pursuing a *deficit-budget policy*. And, when the government adopts a policy of keeping its expenditure substantially below its current revenue, it is following a *surplus-budget policy*. Balanced, deficit and surplus budgets affect the economy in different ways, to different extents, and in different directions. The effects of different kinds of budgetary policy will be discussed further in a following section.

(ii) Government Expenditure

The government expenditure includes total public spending on purchase of goods and services, payment of wages and salaries to public servants, public investment, infrastructure development, transfer payments (e.g., pensions, subsidies, unemployment allowance, grants and aid, payments of interest, and amortization of loans). Given the expendable resources, the size and the composition of government expenditure is a matter of government discretion. *The government expenditure is an injection into the economy: it adds to the aggregate demand.* The overall effect of government expenditure on the economy depends on how it is financed and what is its multiplier effect. The effect of the government expenditure on the economy has already been discussed in Chapter 18.

(iii) Taxation

A tax is a *non quid pro quo* payment by the people to the government, i.e., tax is an obligatory payment by the people to the government against which there is no direct return to the taxpayers. By this definition, taxation means *non quid pro quo* transfer of private income to public coffers by means of taxes. Taxes are classified as *direct taxes* and *indirect taxes*. *Direct taxes* include taxes on personal incomes, corporate incomes, wealth and property. Personal income tax and corporate income tax are the two most important direct taxes imposed by the central government in India.

In 2012-13, personal income tax contributed 19.0 per cent and corporate income tax contributed 34.4 per cent of the gross tax revenue. These two direct taxes together contribute more than 50 per cent of the gross tax revenue of the central government. More importantly, corporate income tax has of late emerged as the most important single source of government revenue. These two taxes contributed 53.4 per cent of the gross revenue in 2012-13. *Indirect taxes* include taxes on production and sale of the goods and services. Indirect taxes are also called *commodity taxes*. In India, the two most important central indirect taxes are excise duty (or VAT) and customs. In 2012-13, central excise yielded 17.0 per cent and customs 16.0 per cent of the gross tax revenue.⁴ These two taxes together contributed 33.0 per cent of gross revenue in 2012-13.

(iv) Public Borrowings

Public borrowings include both internal and external borrowings. The governments make borrowings, generally, with a view to financing their budget deficits. *Internal borrowings* are of two types: (i) borrowings from the public by means of government bonds and treasury bills, and (ii) borrowing from the central bank. The two types of borrowings have different effects on the economy. Borrowings from the people to finance budget deficit is, in effect, simply a transfer of purchasing power from the people to the government, whereas borrowings from the central bank for financing budget deficits, i.e., *monetized deficit financing*, is straightaway an injection into the economy. *External borrowings* include borrowings from (a) foreign governments, (b) international organizations like World Bank and IMF, and (c) market borrowings. It has the same effect on the economy as deficit financing. In India, the total borrowing accounted for about 34 per cent of the total central government expenditure in 2012-13.

32.2.2 Target Variables

In the Keynesian framework of analysis, the ultimate target variable of fiscal policy is the intended change in the *aggregate demand*. The change in aggregate demand is sought through the change in its various components and level, and in the price structure. The target variables of fiscal policy, i.e., the variables which are sought to be changed through fiscal instruments are following.

- (i) Private disposable incomes,
- (ii) Private consumption expenditure,
- (iii) Private savings and investment,
- (iv) Exports and imports, and
- (v) Level and structure of prices.

32.2.3 How Fiscal Instruments Affect Target Variables

In order to understand how fiscal instruments affect the target variables, we need to recall that fiscal instruments and target variables are interrelated and interdependent. Therefore, a change in one policy variable affects all other macro variables. The extent of effect depends on the extent of

⁴ *Economic Survey*, 2012-13, Economic Division, Ministry of Finance, Government of India, p. 58, Table 3.3.

their relationships. For example, a change in taxation changes first the disposable income which in turn changes the consumption expenditure, savings and investment. The change in these variables changes the aggregate demand. The change in aggregate demand affects the external balance by changing imports. Also, an autonomous change in one of the macro variables can cause a change in other macro variables and policy variables. The relationship between the macro variables is exhibited below. While describing the relationship between the policy instruments and target variables, we assume *all other things to remain constant*.

The interdependence of target variables—disposable income, consumption expenditure, savings, investment, imports, and price level—can be pointed out by using the aggregate demand function. We know that the aggregate demand (AD) is given as:

$$AD = C + I + G + X - M$$

where, C = consumer demand, I = investment, G = public spending, M = imports, and X = exports.

We know also that, in the short run,

$$\begin{aligned}C &= f(Y_d), \text{ and} \\M &= f(Y)\end{aligned}$$

where, $Y_d = Y - tY$ = disposable income, Y = gross income, and t = tax rate.

Given these relationships, the government can change the aggregate demand: (a) by changing aggregate consumption expenditure by changing disposable income through direct taxation, (b) by changing imports through tariffs, (c) by changing investments through tax incentive or disincentive, and (d) by changing government expenditure. The aggregate demand can be changed by changing any one or more of these factors.

32.3 KINDS OF FISCAL POLICY

There is no unique fiscal policy that can provide appropriate solution to all kinds of economic problems and under different condition in different countries and at different points of time. In fact, different kinds of fiscal policies have been suggested by the economists and used by the policy-makers in different countries under different economic conditions to achieve specific macroeconomic goals. However, fiscal policy actions are generally classified under the following categories.

- 1. Automatic Stabilization Fiscal Policy,
- 2. Compensatory Fiscal Policy, and
- 3. Discretionary Fiscal Policy.

This classification of fiscal policy is based on the frequency and purpose of changes made in the revenue and expenditure programmes by the government of different countries. The frequency of fiscal changes may vary from country to country and from time to time. The fiscal changes may be

when complete crowding-out is not there, then there is net expansion in the incomes and output caused by the government spending.

There are two important points that need to be borne in mind in this regard. *One*, crowding out is a short-run phenomenon. For, in the long run, the reaction or response of the private investment to the tight money policy (including higher interest rate and credit restriction) lose their effectiveness. We have shown earlier that expansion in employment and output can take place along with the rise in the interest rate in the long run. *Two*, crowding out logic applies only to *structural deficits*, that is, the budget deficits that arise due to a planned or discretionary increase in government spending as a policy matter. It does not apply to *cyclical deficits* which arise due to fall in tax revenue caused by fall in incomes or rise in government spending as employment relief and social security payments during the recession.

32.6.2 Arguments for Crowding-in Effect of Deficit Spending

Crowding-in means rise in the private investment due to deficit spending by the government This is contrary to the crowding-out argument. The crowding-in argument runs as follows. Deficit spending leads, undoubtedly, to the rise in the interest rate which discourages private investment. But, government deficit spending leads to rise in the aggregate demand. The incremental demand is met by increasing the production from the existing capital stock. This brings the *acceleration principle* in force and intensive use of existing capital results in a greater depreciation. Therefore, demand for capital increases. That is, deficit spending stimulates new investments. Besides, during the period of inflation, output prices increase at a higher rate than the input prices. As a result, profit margin increases. Increase in profit margin promotes new investment in the private sector. Thus, there is crowding-in, instead of crowding out, of the private investment due to increase in government spending. This argument, however, holds only when there are *unutilized resources*. This had happened, in fact, throughout the period of India's economic growth. Deficit spending accelerated price rise, no doubt, but also created an optimistic environment and private investment started increasing, though slowly. Gross capital formation in the private sector increased five times during 1955-56 to 1970-71.

Empirical Evidence—The US Experience

The empirical evidence on 'crowding-out' and 'crowding in' effect of government expenditure is scanty. The available evidence is inconclusive either way. For instance, in the US, deficit spending had crowded-in private investment during the 1960s because there were unutilised resources. But, during 1980s, deficit spending had crowded-out private investment.¹⁶ A report published by the Congressional Budget Office (US) found that deficit spending during the deep depression of mid-1970s had crowding-in effect in 1974-75. In fact, the relationship between government deficit spending depends on a number of factors including saving and investment behaviour of the households, transaction demand for money, expectations of producers, foreign exchange rate, behaviour of the financial market and monetary policy of the government.

¹⁶. For details, see Samuelson, P.A. and Nordhaus, W.D., *Economics*, op. cit., pp. 634-36.

It may be interesting to note that India has been deficit financing its public expenditure throughout. But, on the contrary private investment too has been rising continuously at a significantly high rate. These facts show that crowding-out arguments do not apply to Indian conditions.

32.7 FISCAL POLICY OF INDIA

32.7.1 The Background

India's fiscal policy was formulated initially in 1950-51 in the background of India's economic conditions at the time of Independence. The Indian economy was trapped in a *vicious circle of poverty* with the lowest per capita income and consumption in the world. Over the entire period of 40 years from 1910 to 1950, the growth rate of the economy had been nearly zero. After Independence, the government assumed the responsibility of creating conditions for the economic growth of the country. The Government of India adopted a policy of 'mixed economy' under democratic framework, in which the public sector had to play a leading role. The government assumed a leading role in the economy because the economy was dominated by the primitive agricultural sector. The private industrial sector of the country was underdeveloped and, therefore, could not be relied upon to play a significant role in the economic development of the country for at least a decade or two. As a strategic measure, the government adopted the Five Year Development Plans. The basic objectives of Development Plans are (i) to achieve a target growth rate of generally 5 per cent, (ii) to promote employment opportunities, (iii) to remove poverty, and (iv) to reduce income inequalities. The basic philosophy of the government's overall economic policy was 'growth with social justice'.

32.7.2 India's Discretionary Fiscal Policy

The most difficult problem that the Government of India faced was how to mobilize resources for development. It was with this background that the government formulated its *fiscal policy*. Under the conditions highlighted above, the Government of India adopted *discretionary fiscal policy*. The government has throughout used its discretion to determine the pattern and level of both taxation and its expenditure. In order to raise financial resources, the government adopted very extensive direct and indirect taxation with highly progressive tax rates. Prior to economic reforms of 1991, the government changed its tax rate and exemption limits almost every third year, sometimes in each annual budget. So was the case with the level and pattern of its expenditure. The dominant aspect of the government's discretionary fiscal policy was to raise maximum possible revenue through direct and indirect taxation for meeting its revenue requirement, and to allocate expenditure in the manner that could promote growth and employment. Whether the government succeeded in these objectives with its fiscal policy is a different issue.

However, total tax revenue collected through taxation had fallen much short of government's plan expenditure. Therefore, the government had to rely heavily on *deficit financing*, especially on borrowing from the RBI. In effect, India has adopted a *deficit budgeting policy*.

The fiscal policy of the Central Government is reflected in its annual budget. Let us have an overview of the annual budgets of the Government of India in recent years. The annual budget has two sides: (i) revenue side, and (ii) expenditure side. The government revenue includes tax

revenue and non-tax revenue, and government expenditure includes both development and non-development expenditures. Both government revenue and expenditure are further classified under: (i) revenue account, and (ii) capital account. Let us have a glance at the pattern of government revenue and expenditure in some detail.

32.7.3 The Revenue and Capital Accounts of the Central Government Budget

In order to understand the basic features of India's fiscal policy, let us study the central government's budget's of the last few years. The revenue and expenditure pattern of the central government on both revenue and capital accounts is given in Table 32.1

Table 32.1 Revenue Receipts and Expenditure of the Central Government

(Rs. Crore)

Receipts and Expenditure		1995-96	2001-02	2005-06	2010-11(P)
A: Revenue Account					
1.	Revenue Receipts (a + b)	110130	201306	347462	794277
	(a) Tax Revenue*	81939	133532	270264	572790
	(b) Non-tax Revenue	28191	67774	71198	221487
2.	Revenue Expenditure (a + b + c)	139861	301468	439761	1039130
	(a) Interest Payment	50045	107460	132630	234738
	(b) Major Subsidies	12430	30447	44480	131212
	(c) Defence Expenditure	18841	38059	48211	92386
3.	Revenue Deficit (2 - 1)	29731	100162	92299	244853
B: Capital Account					
1.	Capital Receipts (a + b + c)	48348	161004	158661	404642
	(a) Recovery of Loans	6505	16403	10645	12752
	(b) Other Receipts**	1397	3646	1581	22847
	(c) Borrowings and other Liabilities	40446	140955	146435	369043
2.	Capital Expenditure	28424	60842	66362	159789
C: Total Expenditure (A.2 + B.2)		168285	362310	506123	1198919
1.	Plan Expenditure	46374	101194	140638	377350
2.	Non-Plan Expenditure	121911	261116	365485	821569
D: Fiscal Deficit		50253	140955	146435	369043
$= [C - A.1 - B.1(a) - B.1(b)]$					
E: Primary Deficit (D - A.2(a))		208	33495	13805	134305

* Net of States' share

** Consisting mainly of PSU disinvestment

Source: Economic Survey: 2000-01, 2007-08 and 2011-12, MOF, GOI.

As can be seen in Table 32.1, the total budget expenditure has always exceeded the total revenue of the government. Therefore, the central government budget has mostly shown both revenue deficits and fiscal deficits. This, as a matter of fact, has been, the budgetary policy of the Central Government. As already stated, the fiscal policy objectives have been to achieve a targeted growth rate, employment promotion, and income equity, while ensuring price stability at the same time. Although the government has adopted a highly progressive and extensive taxation policy to meet its revenue needs, the required resources could not be raised through taxation. The non-tax sources of revenue were of little consequence. The total revenue collected through taxation and non-tax sources had fallen much short of budgeted expenditure. Therefore, the government resorted to **deficit financing**, i.e., financing the budgetary deficits through borrowings from public, the RBI and external sources. This method of financing budgetary deficits resulted in almost continuous rise in **fiscal deficits**.

It is useful to note here that prior to 1990-91, **fiscal deficit** was referred to as **budgetary deficit**.¹⁷ Conventionally, budgetary deficit was estimated as 'the difference between all receipts and expenditure (both revenue and capital)'. However, the concept of 'budgetary deficit' is a narrow concept as it gives only a 'partial' measure of the overall 'fiscal imbalance' faced by the government. It is a narrow concept because it excludes the 'Government's draft on domestic savings and [its] dependence on external borrowings'. Besides, it does not indicate the **monetized deficits**, i.e., 'the increase in the net RBI credit to the Central Government'. The monetized deficits result in increase in money supply which leads to inflation—contrary to the objective of price stabilization. It is for this reason that a broader concept of budgetary deficit has now been adopted, known as **fiscal deficit**. The difference between the two concepts of budget related deficits can be understood more by looking at the specific measures of the two kinds of deficits—*budgetary deficits* and *fiscal deficits*—as given below.

$$\text{Budgetary Deficit} = \text{Revenue Expenditure (RE)} - \text{Revenue Receipts (RR)}$$

where RR = Tax revenue + Non-tax revenue, and

RE = Interest payments + Subsidies + Defence expenditure

$$\text{Fiscal Deficit} = \text{Total Budget Expenditure}$$

Less Tax Revenue (net of States' share)

Less Recovery of Loans

Less Other Receipts (mainly PSU disinvestment)

The fiscal policy of the Indian government is essentially formulated to manage its fiscal affairs prudently. A prudent fiscal management requires that the revenue receipts should not only meet the revenue expenditure but should also leave a surplus for financing public investment and development programmes. On the contrary, budgetary deficits of the Central Government have almost continuously increased over the years, especially after the financial year 1980-81. For instance, budgetary deficit of the Central Government increased from Rs 2,037 crore in 1980-81 to Rs 18,562 crore in 1990-91, to Rs 85,233 crore in 2000-01 and to Rs 92,299 crore in 2005-06, though the government managed to reduce its revenue deficits from the financial year 2006-07. The rapid

^{17.} *Economic Survey*: 1990-91, MOF, GOI (p. 99).

growth in budgetary deficits led to unmanageable rise in *fiscal deficits*. The growing fiscal deficit has been a matter of great concern for the Government. The growing magnitude of the problem arising out of fiscal deficits is assessed in terms of the ratio of budgetary deficits to *GDP*. The ratio of revenue receipts, revenue expenditure, fiscal deficits and primary deficit to *GDP* for the period 1980-81 to 2007-08 is presented in Table A32.1 in the Appendix to this chapter.

32.7.4 Changing Structure of Revenue Sources

Before we proceed to look at the recent changes made in the fiscal policy, let us have a glance at the important features of the changing pattern of sources of government revenue. Revenue receipts of the government are classified under two heads:

- (i) Tax Revenue, and
- (ii) Non-tax Revenue.

Tax Revenue consists, mainly, of (a) *direct taxes* including income tax, corporate tax, expenditure tax, and wealth tax, and (b) *indirect taxes* including union excise duties, customs duties, service tax. The relative share of revenue yield from direct and indirect taxes have changed significantly over the years, as shown in Table 32.2.

Table 32.2 Percentage Share of Major Direct and Indirect Taxes in Total Tax Revenue

Taxes		1900-01	1995-96	2000-01	2005-06	2010-11	2013-14(P)
1.	Direct Taxes	19.1	30.2	37.0	43.8	55.3	55.9
	Personal Income tax	9.3	14.0	17.1	16.5	17.5	21.0
	Corporate Tax	9.3	14.8	19.6	27.2	37.7	34.8
2.	Indirect Taxes	78.4	69.1	62.1	54.5	43.4	43.8
	Excise Duties	42.6	36.1	38.8	30.4	17.4	15.2
	Customs Duties	35.9	32.3	21.5	17.8	17.0	14.9
	Service Tax	—	0.8	1.8	6.3	9.0	13.9
3.	Other Taxes	2.5	0.7	0.9	1.7	1.3	0.3
4.	Total Tax						
	Revenue	100.0	100.0	100.0	100.0	100	100

As the data given in Table 32.2 shows, the share of direct taxes in total tax revenue has increased over time whereas that of indirect taxes has decreased. Within the *direct taxes*, the share of both personal income tax and corporate taxes has increased, though the share of personal income tax has increased at a lower rate whereas that of corporate tax has increased rapidly from 9.3 per cent in 1900-01 to 30.3 per cent in 2006-07. The relative share of revenue yield from the *indirect taxes* has declined sharply—it declined from 78.4 per cent in 1990-01 to 43.8 per cent in 2013-14(P).

Non-Tax Revenue consists of government's interest earnings, dividends and profits of PSUs, and external grants. All put together contribute a relatively small proportion of the total revenue.

For instance, in 1990-91, non-tax revenue accounted for only 10.1 per cent and 18.9 per cent in 2007-08 of the total revenue receipts. In 2012-13 Budget estimates, non-tax revenue was estimated to be 17.3 per cent of total revenue receipts. Most of the non-tax revenue comes from the PSUs.

32.7.5 Fiscal Reforms and Fiscal Deficits Since 1991

Till 1990-91, the Government of India made minor modifications in its fiscal policy (including both taxation policy and expenditure pattern). But drastic changes were made in the fiscal policy and fiscal management of the country in 1991. Here we present a brief analysis of the reforms made by the government in its fiscal policy since 1991.

In 1990, India faced an unprecedented foreign exchange crisis mainly due to rise in crude oil prices following the Gulf War. Due to a sharp rise in oil price, import bill of the country shot up from a monthly average of \$287 million in June-August 1991 to \$671 million in the following 6 months. As a result, the foreign exchange reserves declined from \$3.11 billion in August 1990 to \$896 million in 16 January 1991. The Indian economy was almost on the verge of economic collapse. However, financial help provided by the IMF in the form of a loan of \$665 million in September 1990 helped the country tide over the crisis. This crisis created conditions and need for evaluating the significance and relevance of country's economic policies in general and fiscal policy and foreign trade policy in particular. Fiscal reform was one of the main aspects of the economic policy reforms made in 1990-91.

In the opinion of the experts, a reversal of the fiscal expansionism was essential for restoring the macroeconomic balance in the economy. The government adopted a policy to reduce the fiscal deficit. As a result, the ratio of fiscal deficit to *GDP* declined considerably. It declined from 5.5 per cent in the late 1980s to 4.5 per cent in the 1990s, and then to 3.2 per cent in the 2007-08 Budget (see Appendix). Fiscal deficit was reduced by restraining the growth rate of both the revenue and capital expenditures. In order to regularize the fiscal management of the country, an Act – Fiscal Responsibility and Budget Management Act (FRBMA) – was passed in 2003. The FRBM Act prescribes 3 per cent of *GDP* as the upper limit for fiscal deficit, to be achieved by 2008-09. However, budgetary estimates¹⁸ show that fiscal deficit has stayed at about 5 per cent of *GDP* throughout, except in 2007-08 when it was 2.5 per cent.

Apart from constraints imposed by the FRBM Act, robust economic growth and improved performance of the manufacturing and services sectors kept the tax revenue buoyant during the period from 2002-03 to 2010-11. The average revenue growth rate, over this period, was 16.2 per cent and growth rate of net tax revenue of the central government was 20.7 per cent. The gross tax-*GDP* ratio increased from 8.9 per cent during the preceding decade to 11.5 per cent in 2006-07. Although the gross tax-*GDP* ratio declined marginally, it stayed around 10 per cent during the period from 2008-09 to 2012-13(BE).

However, inflation rate had risen from about 5 per cent during 2003-07 to 12 per cent in July 2008. In order to control inflation, the RBI adopted a stringent monetary policy. It had raised the prime lending rates. However, due to low impact of global recession on the Indian economy and a prudent monetary policy, inflation rate has gone down to a negative rate of -1.6 per cent. But, in

¹⁸. For details, see Economic Survey, MOF, GOI, 2013-14, p. 55

2009-10, the fiscal deficit was 6.5 of *GDP* and is estimated to be above 5 per cent in the subsequent years. The fiscal deficit remains a challenge for the government.

Suggested Reading

- Blinder, Alan S., *Fiscal Policy in Theory and Practice*, (General Learning Press, Morristown, N. J., 1973).
- Blinder, Alan, S. and Solow, Robert M., "Analytical Foundations of Fiscal Policy," in Alan S. Blinder, et. al., (eds), *The Economics of Public Finance*, (The Brookings Institution, Washington, D. C., 1974).
- Brown, E. Cary, "Fiscal Policies in the Thirties : A Reappraisal," *Am. Eco. Rev.*, 46, December 1946.
- Buiter, William, "A Guide to Public Sector Debt and Deficits," *Economic Policy*, 1, November 1985.
- Musgrave, Richard A., *The Theory of Public Finance*, (McGraw-Hill, N.Y., 1959), Chapters 1-4.
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Questions for Review

1. What is meant by fiscal policy? Under what circumstances did fiscal policy come to prominence?
2. Distinguish between fiscal instruments and target variables. What are the fiscal instruments and target variables in fiscal policy?
3. Describe the relationship between fiscal instruments and target variables of fiscal policy. Explain how fiscal instruments affect the target variables.
4. What are the general objectives of fiscal policy? Are the various objectives of fiscal policy always consistent with one another? Do the fiscal policy objectives differ between developed and underdeveloped countries?
5. Describe the role of fiscal policy in achieving economic growth and in stabilizing the economy. Do the policy measures for growth and stability conflict with one another?
6. What is automatic stabilization policy? How does it work? What are its limitations?
7. What is discretionary fiscal policy? Why is discretionary fiscal policy preferable to other kinds of fiscal policies in both developed and underdeveloped countries?
8. Distinguish between automatic stabilization policy and discretionary fiscal policy. Do they work equally efficiently in developed and underdeveloped countries? If not why?
9. What are the factors that limit the effectiveness of the fiscal policy in achieving macroeconomic goals?
10. Fiscal policy is the most powerful tool of achieving macroeconomic goals. Do you agree with this statement? Give reasons for your answer.
11. Deficit spending as a fiscal measure of financing growth projects creates more problems than it solves. Comment.
12. What kind of fiscal policy is suitable for controlling inflation? What are the necessary conditions for fiscal policy to control inflation effectively? Does it involve any social cost?
13. What is meant by crowding-out effect of public expenditure? What is crowding-out mechanism? Does it always occur?

14. It is alleged that inflationary financing or deficit financing causes reduction in the private investment. Do you agree with this statement? Give reasons.
15. What are the different methods of deficit financing? How do the different methods of deficit financing affect the economy?
16. How is the private investment affected if public spending is financed by sale of government bonds? Do you think borrowing from the central bank is preferable?
17. What is crowding-in effect of public expenditure? Explain the crowding-in mechanism? What is the factor responsible for crowding-in of private investment?
18. What is the controversy about crowding-out and crowding-in controversy? What do you think is a more realistic phenomenon?
19. Narrate the fiscal policy of India. What are the important features of India's fiscal policy?
20. Distinguish between budgetary deficit and fiscal deficit. What important changes have been made in India's fiscal policy since 1990-91?

APPENDIX TO CHAPTER 32**Table A32.1 Revenue Receipts, Revenue Expenditure and Fiscal Deficits – 1980-81 to 2013-14(P)**

(As percentage of GDP at current prices)

Year Receipts	Revenue Expenditure	Revenue Deficits	Revenue Deficit	Fiscal Deficit	Primary
1980-81	9.1	10.6	1.5	5.7	3.6
1981-82	9.3	10.7	0.2	5.4	4.3*
1982-83	10.3	10.9	0.7	6.0	3.4*
1983-84	9.9	11.0	1.2	6.3	4.1
1984-85	10.5	10.5	1.8	7.5	4.7
1985-86	11.2	11.2	2.2	7.9	5.3
1986-87	11.7	11.7	2.7	8.5	5.5
1987-88	11.5	11.5	2.7	7.6	4.5
1988-89	11.5	11.4	2.7	7.3	3.9
1989-90	11.4	14.1	2.6	7.3	3.7
1990-91	9.7	12.9	3.3	6.6	2.8
1991-92	10.7	13.3	2.5	4.7	0.7
1992-93	10.5	13.1	2.5	4.8	0.6
1993-94	9.4	13.5	3.8	6.4	2.2
1994-95	8.8	11.8	3.1	4.7	0.4
1995-96	9.3	11.8	2.5	4.2	0.0
1996-97	9.2	11.6	2.4	4.1	-0.2
1997-98	8.8	11.8	3.1	4.8	0.5
1998-99	8.6	12.4	3.8	5.1	0.7
1999-00	9.4	12.9	3.5	5.4	0.7
2000-01	9.1	13.2	4.1	5.7	0.9
2001-02	8.8	13.2	4.4	6.2	1.5
2002-03	9.4	13.8	4.4	5.9	1.1
2003-04	9.6	13.1	3.6	4.5	0.0
2004-05	9.7	12.2	2.5	4.0	-0.1
2005-06	9.7	12.3	2.7	4.1	0.4
2006-07	10.5	12.4	2.1	3.4	-0.2
2007-08	11.5	12.6	1.1	2.7	-0.9
2008-09	9.6	14.1	4.5	6.0	2.6
2009-10	8.8	14.1	5.2	6.5	3.2
2010-11	10.1	13.4	3.2	4.8	1.8
2011-12	8.3	12.7	4.4	5.7	2.7
2012-13	8.7	12.3	3.6	4.9	1.8
2013-14(P)	8.9	12.1	3.2	4.5	1.2

* Gross primary deficit

Source: Various issues of *Economic Survey*, MOF, GOI.

APPENDIX

Solution to the Numerical Questions

CHAPTER 6

Ans/Q10

The equilibrium level of national income in two-sector model is given as

$$Y = \frac{1}{1-b} (a + I)$$

In question 10, $a = 50$, $b = 0.8$ and $I = 50$. So by substitution,

$$Y = \frac{1}{1-0.8} (50 + 50) = 5(100) = 500$$

Ans/Q11

The equilibrium level of national income in two-sector model is given as

$$Y = \frac{1}{1-b} (a + I)$$

In question 11, $a = 100$, $b = 0.75$ and $I = 100$. By substitution,

(a) $Y = \frac{1}{1-0.75} (100 + 100) = 4(200) = 800$

(b) $C = a + bY$

By substitution, $C = 100 + 0.75(800) = 700$

CHAPTER 7

Ans/Q5

Multiplier (m) = 4

$$m = 1/(1 - mpc)$$