

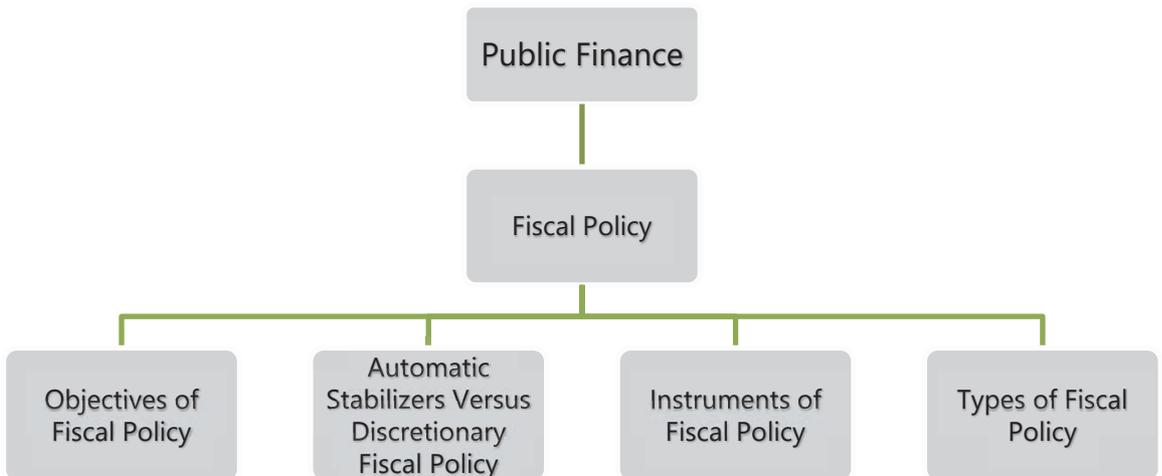
UNIT IV: FISCAL POLICY

LEARNING OUTCOMES

At the end of this unit, you will be able to:

- Define fiscal policy and list out its objectives
- Distinguish between discretionary and non- discretionary fiscal policy
- Explain the various instruments of fiscal policy
- Describe the expansionary and contractionary fiscal policies
- Illustrate the use of fiscal policy for redistribution and economic growth
- Elucidate the limitations of fiscal policy

UNIT OVERVIEW



4.1 INTRODUCTION

In the previous unit, we have studied the nature of governments' intervention in markets to provide public goods, remedy externalities, ensure efficient allocation of resources and to enable redistribution of income. We have also looked into how taxes and subsidies influence the incentives for private economic activity. We have been doing this from the microeconomic point of view. From the macroeconomic perspective, the focus is on the aggregate economic activity of governments, say, aggregate expenditure, taxes, transfers and issues of government debts and deficits and their effects on aggregate economic variables such as total output, total employment, inflation, overall economic growth etc. These, in fact, form the subject matter of fiscal policy.

The significance of fiscal policy as a strategy for achieving certain socio-economic objectives was not recognized or widely acknowledged before 1930 due to the faith in the limited role of government advocated by the then prevailing laissez-faire approach. Great Depression and the consequent instabilities made policymakers support a more proactive role for governments in the economy. However, later on, markets started demonstrating an enhanced role in the allocation of goods and services in the economy. In the previous unit, we have seen situations under which markets fail to achieve optimal outcomes and the need for government intervention to combat those market failures. In recent times, especially after being threatened by the global financial crisis and recession, many countries have preferred to have a more active fiscal policy.

Governments of all countries pursue innumerable policies to accomplish their economic goals such as rapid economic growth, equitable distribution of wealth and income, reduction of poverty, price stability, exchange rate stability, full-employment, balanced regional development etc. Government budget is one among the most powerful instruments of economic policy. The important tools in the budgetary policy could be broadly classified into public revenue (including taxation), public expenditure, public debt and finally deficit-financing to bridge the gap between public receipts and payments. When all these tools are used for achieving certain goals of economic policy, public finance is transformed into what is called fiscal policy. In other words, through the use of these instruments governments intend to favourably influence the level of economic activity of a country.

Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate

demand, output and employment. It includes any design on the part of the government to change the price level, composition or timing of government expenditure or to alter the burden, structure or frequency of tax payment. In other words, fiscal policy is designed to influence the pattern and level of economic activity in a country. Fiscal policy is in the nature of a demand-side policy. An economy which is producing at full-employment level does not require government action in the form of fiscal policy.

4.2 OBJECTIVES OF FISCAL POLICY

The objectives of fiscal policy, like those of other economic policies of the government, are derived from the aspirations and goals of the society. Since nations differ in numerous aspects, the objectives of fiscal policy also may vary from country to country. However, the most common objectives of fiscal policy are:

- achievement and maintenance of full employment,
- maintenance of price stability,
- acceleration of the rate of economic development, and
- equitable distribution of income and wealth.

The importance as well as order of priority of these objectives may vary from country to country and from time to time. For instance, while stability and equality may be the priorities of developed nations, economic growth, employment and equity may get higher priority in developing countries. Also, these objectives are not always compatible; for instance the objective of achieving equitable distribution of income may conflict with the objective of economic growth and efficiency.

Before we go into the details of fiscal policy, we need to know the difference between discretionary fiscal policy and non-discretionary fiscal policy or automatic stabilizers.

4.3 AUTOMATIC STABILIZERS VERSUS DISCRETIONARY FISCAL POLICY

Non-discretionary fiscal policy or automatic stabilizers are part of the structure of the economy and are 'built-in' fiscal mechanisms that operate automatically to reduce the expansions and contractions of the business cycle. Changes in fiscal

policy do not always require explicit action by government. In most economies, changes in the level of taxation and level of government spending tend to occur automatically. These are dependent on and are determined by the level of aggregate production and income, such that the instability caused by business cycle is automatically dampened without any need for discretionary policy action.

Any government programme that automatically tends to reduce fluctuations in GDP is called an automatic stabilizer. Automatic stabilizers have a tendency for increasing GDP when it is falling and reducing GDP when it is rising. In automatic or non-discretionary fiscal policy, the tax policy and expenditure pattern are so framed that taxes and government expenditure automatically change with the change in national income. It involves built-in tax or expenditure mechanism that automatically increases aggregate demand when recession is there and reduces aggregate demand when there is inflation in the economy. Personal income taxes, corporate income taxes and transfer payments (unemployment compensation, welfare benefits) are prominent automatic stabilizers.

Automatic stabilisation occurs through automatic adjustments in government expenditures and taxes without any deliberate governmental action. These automatic adjustments work towards stimulating aggregate spending during the recessionary phase and reducing aggregate spending during economic expansion. As we know, during recession incomes are reduced; with progressive tax structure, there will be a decline in the proportion of income that is taxed. This would result in lower tax payments as well as some tax refunds. Simultaneously, government expenditures increase due to increased transfer payments like unemployment benefits. These two together provide proportionately more disposable income available for consumption spending to households. In the absence of such automatic responses, household spending would tend to decrease more sharply and the economy would in all probability fall into a deeper recession.

On the contrary, when an economy expands, employment increases, with progressive system of taxes people have to pay higher taxes as their income rises. This leaves them with lower disposable income and thus causes a decline in their consumption and therefore aggregate demand. Similarly, corporate profits tend to be higher during an expansionary phase attracting higher corporate tax payments. With higher income taxes, firms are left with lower surplus causing a decline in their investments and thus in the aggregate demand. Again, during expansion unemployment falls, therefore government expenditure by way of transfer payments falls and with lower government expenditure inflation gets

controlled to a certain extent. Briefly put, during an expansionary phase, all types of incomes rise and the amount of transfer payments decline resulting in proportionately less disposable income available for consumption expenditure. The built-in stabilisers automatically remove spending from the economy to reduce demand-pull inflationary pressures and further expansionary stimulation. In brief, automatic stabilizers work through limiting the increase in disposable income during an expansionary phase and limiting the decrease in disposable income during the contraction phase of the business cycle. Since automatic stabilizers affect disposable personal income directly, and because changes in disposable personal income are closely linked to changes in consumption, these stabilizers act swiftly to reduce the extent of changes in real GDP.

However, automatic stabilizers that depend on the level of economic activity alone would not be sufficient to correct instabilities. The government needs to resort to discretionary fiscal policies. Discretionary fiscal policy for stabilization refers to deliberate policy actions on the part of government to change the levels of expenditure, taxes to influence the level of national output, employment and prices. Governments influence the economy by changing the level and types of taxes, the extent and composition of spending, and the quantity and form of borrowing.

Governments may directly as well as indirectly influence the way resources are used in an economy. We shall now see how this happens by investigating into the fundamental equation of national income accounting that measures the output of an economy, or gross domestic product (GDP), according to expenditures.

$$\mathbf{GDP = C + I + G + NX.}$$

We know that GDP is the value of all final goods and services produced in an economy during a given period of time. The right side of the equation shows the different sources of aggregate spending or demand namely, private consumption (C), private investment (I), government expenditure i.e. purchases of goods and services by the government (G), and net exports, (exports minus imports) (NX). It is evident from the equation that governments can influence economic activity (GDP) by controlling G directly and influencing C, I, and NX indirectly, through changes in taxes, transfer payments and expenditure.

4.4 INSTRUMENTS OF FISCAL POLICY

Fiscal policy is a vital component of the general economic framework of a country and is therefore closely connected with its overall economic policy strategy. The ability of fiscal policy to influence output by affecting aggregate demand makes it a potential instrument for stabilization of the economy. The Keynesian school is of the opinion that fiscal policy can have very powerful effects in altering aggregate demand, employment and output in an economy when the economy is operating at less than full employment levels and when there is need to offer stimulus to demand. As such, there is a significant and justifiable role for the government to institute relevant fiscal policy measures. In fact the global financial crisis around the year 2008 has caused fiscal policy to be at centre of the public policy debate.

The tools of fiscal policy are taxes, government expenditure, public debt and the government budget. We shall discuss each of them in the following paragraphs.

4.4.1. Government Expenditure as an Instrument of Fiscal Policy

Public expenditures are income-generating and include all types of government expenditure such as capital expenditure on public works, relief expenditures, subsidy payments of various types, transfer payments and other social security benefits. Government expenditure is an important instrument of fiscal policy. It includes governments' expenditure towards consumption, investment, and transfer payments. Government expenditures include:

1. current expenditures to meet the day-to-day running of the government,
2. capital expenditures which are in the form of investments made by the government in capital equipments and infrastructure, and
3. transfer payments i.e. government spending which does not contribute to GDP because income is only transferred from one group of people to another without any direct contribution from the receivers.

Government may spend money on performance of its large and ever-growing functions and also for deliberately bringing in stabilization. During a recession, it may initiate a fresh wave of public works, such as construction of roads, irrigation facilities, sanitary works, ports, electrification of new areas etc. Government expenditure involves employment of labour as well as purchase of multitude of goods and services. These expenditures directly generate incomes to labour and suppliers of materials and services. Apart from the direct effect, there is also indirect effect in the form of working of multiplier. The incomes generated are

spent on purchase of consumer goods. The extent of spending by people depends on their marginal propensity to consume (MPC). There is generally surplus capacity in consumer goods industries during recession and an increase in demand for various goods leads to expansion in production in those industries as well. Additionally, a programme of public investment will strengthen the general confidence of businessmen and consequently their willingness to invest. Primary employment in public works programmes will induce secondary and tertiary employment, and before long the economy is put on an expansion track.

A distinction is made between the two concepts of public spending during depression, namely, the concept of 'pump priming' and the concept of 'compensatory spending'. Pump priming involves a one-shot injection of government expenditure into a depressed economy with the aim of boosting business confidence and encouraging larger private investment. It is a temporary fiscal stimulus in order to set off the multiplier process. The argument is that with a temporary injection of purchasing power into the economy through a rise in government spending financed by borrowing rather than taxes, it is possible for government to bring about permanent recovery from a slump. Pump priming was widely used by governments in the post-war era in order to maintain full employment; however, it became discredited later when it failed to halt rising unemployment and was held responsible for inflation. Compensatory spending is said to be resorted to when the government spending is deliberately carried out with the obvious intention to compensate for the deficiency in private investment.

Public expenditure is also used as a policy instrument to reduce the severity of inflation and to bring down the prices. This is done by reducing government expenditure when there is a fear of inflationary rise in prices. Reduced incomes on account of decreased public spending, helps to eliminate excess aggregate demand.

The Government Spending Multiplier

Spending multiplier (also known as Keynesian or fiscal policy multiplier) represents the multiple by which GDP increases or decreases in response to an increase and decrease in government expenditures and investment, holding the real money supply constant. Quantitatively, the government spending multiplier is the same as the investment multiplier. It is the reciprocal of the marginal propensity to save (MPS). Higher the MPS, lower the multiplier, and lower the MPS, higher the multiplier.

$$\frac{\Delta Y}{\Delta G} = \frac{1}{MPS} = \frac{1}{1 - MPC} = \frac{1}{1 - b}$$

Where,

MPS stands for marginal propensity to save (*MPS*); and

MPC is marginal propensity to consume

MPS equals $1 - MPC$

Numerical Illustrations

ILLUSTRATION 1

Assume that the *MPC* is equal to 0.6.

- What is the value of government spending multiplier?
- What impact would a 50 billion increase in government spending have on equilibrium GDP?
- What about a 50 billion decrease in government spending?

SOLUTION

$$(a) \frac{1}{MPS} = \frac{1}{1 - MPC}$$

$$= 1/(1 - 0.6) = 1/0.4 = \mathbf{2.5}$$

(b) & (c) Change in GDP = Initial Change in Spending \times (1 - *MPC*)

$$50 \times 2.5 = 125 \text{ billion}$$

ILLUSTRATION 2

If country X has a marginal propensity to consume of 0, what is the value of fiscal multiplier?

SOLUTION

Given $MPC=0$; $MPS = (1-0) = 1$

The spending multiplier = 1. There is no multiplier effect

ILLUSTRATION 3

Average per capita income of country Y rose from 42,300 to 50,000 and the corresponding figures for per capita consumption rose from 35,400 to 42,500. Find the spending multiplier for this economy.

SOLUTION

Spending multiplier = $1/(1-MPC)$.

$$\begin{aligned} MPC &= \text{Increase in Consumption} / \text{Increase in Income} \\ &= (42,500 - 35,400) / (50,000 - 42,300) \\ &= 0.922 \end{aligned}$$

$$\text{Multiplier} = 1/(1-0.922) = 1/(0.078) = 12.83$$

4.4.2 Taxes as an Instrument of Fiscal Policy

Taxes form the most important source of revenue for governments. Taxation policies are effectively used for establishing stability in an economy. Tax as an instrument of fiscal policy consists of changes in government revenues or in rates of taxes aimed at encouraging or restricting private expenditures on consumption and investment. Taxes determine the size of disposable income in the hands of the general public which in turn determines aggregate demand and possible inflationary and deflationary gaps. The structure of tax rates is varied in the context of the overall economic conditions prevailing in an economy. During recession and depression, the tax policy is framed to encourage private consumption and investment. A general reduction in income taxes leaves higher disposable incomes with people inducing higher consumption. Low corporate taxes increase the prospects of profits for business and promote further investment. The extent of tax reduction and /or increase in government spending required depends on the size of the recessionary gap and the magnitude of the multiplier.

During inflation, new taxes can be levied and the rates of existing taxes are raised to reduce disposable incomes and to wipe off the surplus purchasing power. However, excessive taxation usually stifles new investments and therefore the government has to be cautious about a policy of tax increase.

As we know, income taxes lower consumption spending at each level of income because such taxes reduce disposable income which is a major determinant of households' consumption. This is because the marginal propensity to consume out of income after paying taxes is $c(1-t)$ where $(1-t)$ is the fraction of income left after taxes.

The tax multiplier represents the multiple by which GDP increases (decreases) in response to a decrease (increase) in taxes charged by governments.

In the discussion on the simple version of tax multiplier, it is assumed that any increase or decrease in tax affects consumption only (and has no effect on investment, government expenditures etc.)

Simple Tax multiplier =

$$\frac{-MPC}{MPS} = \frac{MPC}{1 - MPC} = \frac{-b}{1 - b}$$

$$\Delta Y = \frac{1}{1 - b} (-b \Delta T) = \frac{-b \Delta T}{1 - b}$$

$$\frac{\Delta Y}{\Delta T} = \frac{-b}{1 - b}$$

This can be understood in the following manner: since $C = c(Y - T)$, a rise in tax by an amount ΔT leads to a change in consumption by $-b\Delta T$ which, through multiplier leads to a total change equal to $\frac{-b\Delta T}{1 - b}$ in equilibrium income.

The tax multiplier has a negative sign. It means that tax and increase in tax have negative impact on national income.

Given the same value of marginal propensity to consume, simple tax multiplier will be lower than the spending multiplier. This is because in the first round of increase in business or government expenditures, they inject the initial amount of that spending into the income stream and then it multiplies through the economy, while in case of a decrease in taxes of the same amount, consumption increase by a factor of MPC. So, if the government increases spending by 10 billion, the entire 10 billion is injected into the income stream. On the other hand, if taxes are reduced by 10 billion, only the MPC x 10 billion is injected into the expenditure stream. For example when the MPC is 0.9, the spending multiplier is 10; but the tax multiplier is -9 and when the MPC is 0.6, the spending multiplier is 2.5; but the tax multiplier is -1.5.

The method of analysing the impact of a change in lump-sum taxes on the level of income is the same as that of change in government expenditure.

Balanced Budget multiplier

The government budget is said to be in balance when $\Delta G = \Delta T$. The balanced budget multiplier is always equal to 1.

The balanced budget multiplier is obtained by adding up the government spending multiplier (fiscal multiplier) and the tax multiplier.

$$\begin{aligned} \text{Balanced budget multiplier} &= \frac{\Delta Y}{\Delta G} + \frac{\Delta Y}{\Delta T} \\ &= \frac{1}{1-b} + \frac{-b}{1-b} = \frac{1-b}{1-b} = 1 \end{aligned}$$

Numerical Illustration

ILLUSTRATION 4

What would be the impact on GDP if both government spending and taxes are increased by 5 billion when the MPC is 0.9?

SOLUTION

MPC = 0.9; MPS = 0.1. Therefore, spending Multiplier = $\frac{1}{1-b} = 10$

Change in GDP = Initial Change in Spending x 10 = 5 x 10 = 50 billion

Tax multiplier = $\frac{-b}{1-b} = -9$

Decrease in GDP = Initial Change in Tax x 9 = 45 billion

The net result is that output increases by 5 billion.

For further technical analysis, students are requested to refer the following headings in Chapter 1, Unit 2, The Government Sector and Income Determination, under 'Determination of Equilibrium Income: Three Sector Model':

- (i) Income Determination with Lump Sum Tax
- (ii) Income Determination with Lump Sum Tax and Transfer Payments
- (iii) Income Determination with tax as a function of income and
- (iv) Income Determination with Tax (as a Function of Income), Government Expenditure and Transfer Payments,

4.4.3 Public Debt as an Instrument of Fiscal Policy

A rational policy of public borrowing and debt repayment is a potent weapon to fight inflation and deflation. Public debt may be internal or external; when the government borrows from its own people in the country, it is called internal debt. On the other hand, when the government borrows from outside sources, the debt is called external debt. Public debt takes two forms namely, market loans and small savings.

In the case of market loans, the government issues treasury bills and government securities of varying denominations and duration which are traded in debt markets. For financing capital projects, long-term capital bonds are floated and for meeting short-term government expenditure, treasury bills are issued.

The small savings represent public borrowings, which are not negotiable and are not bought and sold in the market. In India, various types of schemes are introduced for mobilising small savings e.g., National Savings Certificates, National Development Certificates, etc. Borrowing from the public through the sale of bonds and securities curtails the aggregate demand in the economy. Repayments of debt by governments increase the availability of money in the economy and increase aggregate demand.

4.4.4 Budget as an Instrument of Fiscal Policy

Government's budget is widely used as a policy tool to stimulate or contract aggregate demand as required. The budget is simply a statement of revenues earned from taxes and other sources and expenditures made by a nation's government in a year. The net effect of a budget on aggregate demand depends on the government's budget balance. A government's budget can either be balanced, surplus or deficit. A balanced budget results when expenditures in a year equal its revenues for that year. Such a budget will have no net effect on aggregate demand since the leakages from the system in the form of taxes collected are equal to the injections in the form of expenditures made. A budget surplus that occurs when the government collects more than what it spends, though sounds like a highly attractive one, has in fact a negative net effect on aggregate demand since leakages exceed injections. A budget deficit wherein the government expenditure in a year is greater than the tax revenue it collects has a positive net effect on aggregate demand since total injections exceed leakages from the government sector.

While a budget surplus reduces national debt, a budget deficit will add to the national debt. A nation's debt is the difference between its total past deficits and its total past surpluses. If a government has borrowed money over the years to finance its deficits and has not paid it back through accumulated surpluses, then it is said to be in debt. Deliberate changes to the composition of revenue and expenditure components of the budget are extensively used to change macro economic variables such as level of economic growth, inflation, unemployment and external stability. For instance, a budget surplus reduces government debt,

increases savings and reduces interest rates. Higher levels of domestic savings decrease international borrowings and lessen the current account deficit.

4.5 TYPES OF FISCAL POLICY

According to the classical economists, fiscal policy may be unnecessary because market mechanisms eventually cure instability without government intervention. These market forces, they argue, are dynamic and help to keep the economy always at or near the natural level of real GDP. For example they believed that prices and wages are flexible and that they would guarantee that markets adjust to equilibrium and eliminate shortages and surpluses.

Fiscal policy measures to correct different problems created by business-cycle instability are of two basic types namely, expansionary and contractionary. Expansionary fiscal policy is designed to stimulate the economy during the contractionary phase of a business cycle or when there is an anticipation of a business cycle contraction. This is accomplished by increasing aggregate expenditures and aggregate demand through an increase in all types of government spending and / or a decrease in taxes.

Contractionary fiscal policy is basically the opposite of expansionary fiscal policy. Contractionary fiscal policy is designed to restrain the levels of economic activity of the economy during an inflationary phase or when there is anticipation of a business-cycle expansion which is likely to induce inflation. This is carried out by decreasing the aggregate expenditures and aggregate demand through a decrease in all types of government spending and/ or an increase in taxes. Contractionary fiscal policy should ideally lead to a smaller government budget deficit or a larger budget surplus. In other words, if the state of the economy is such that its growth rate is extraordinarily high causing inflation and asset bubbles, contractionary fiscal policy can be used to confine it into sustainable levels.

We have understood in general that governments influence the economy through their policies in respect of taxation, expenditure and borrowing. The essence of what we learn in the rest of the unit is that:

- during inflation or when there is excessive levels of utilization of resources, fiscal policy aims at controlling excessive aggregate spending, and

- during deflation or during a period of sluggish economic activity when the rate of utilization of resources is less, fiscal policy aims to compensate the deficiency in effective demand by boosting aggregate spending.

We shall now describe the application of each of the fiscal policy tools.

4.5.1 Expansionary Fiscal Policy

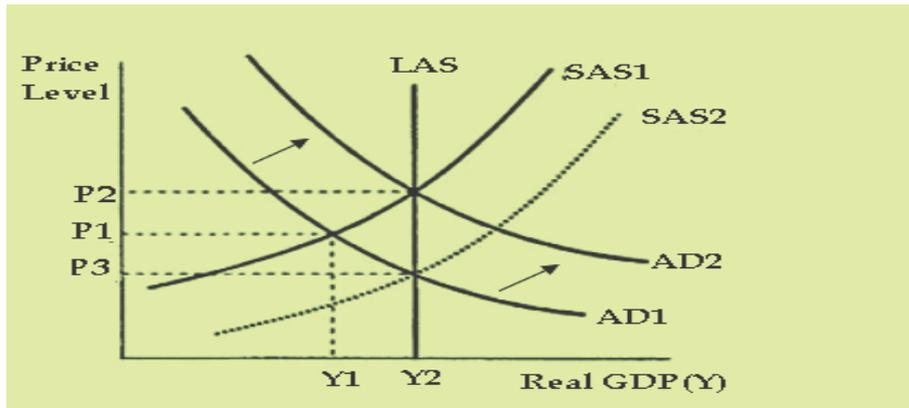
A recession is said to occur when overall economic activity declines, or in other words, when the economy 'contracts'. A recession sets in with a period of declining real income, as measured by real GDP simultaneously with a situation of rising unemployment. If an economy experiences a fall in aggregate demand during a recession, it is said to be in a demand-deficient recession. Due to decline in real GDP, the aggregate demand falls and therefore, lesser quantity of goods and services will be produced. To combat such a slump in overall economic activity, the government can resort to expansionary fiscal policies.

An expansionary fiscal policy is used to address recession and the problem of general unemployment on account of business cycles. We may technically refer to this as a policy measure to close a 'recessionary gap'. A recessionary gap, also known as a contractionary gap, is said to exist if the existing levels of aggregate production is less than what would be produced with full employment of resources. It is a measure of output that is lost when actual national income falls short of potential income, and represents the difference between the actual aggregate demand and the aggregate demand which is required to establish the equilibrium at full employment level of income. This gap occurs during the contractionary phase of business-cycle and results in higher rates of unemployment. In other words, recessionary gap occurs when the aggregate demand is not sufficient to create conditions of full employment. Now the question is how do changes in government expenditure (G), and taxes (T) eliminate a recessionary gap?

We shall now look into the Keynesian arguments for combating recession using expansionary fiscal policy. When the aggregate demand (i.e. economy's appetite for buying goods and services) falls short of aggregate supply (the economy's capacity to produce goods and services), it results in unemployment of resources, especially labour. In that case, the government intervenes through an expansionary fiscal policy. The following figure illustrates the operation of expansionary fiscal policy.

Figure 2.4.1

Expansionary Fiscal policy for Combating Recession



Real GDP at Y_1 level lies below the natural level, Y_2 . This represents a situation where the economy is initially in a recession. There is less than full employment of the resources in the economy. The classical economists held the view that in such a condition flexibility of wages would cause wages to fall resulting in reduction in costs. Consequently, suppliers would increase supply and the short run aggregate supply curve SAS_1 will shift to the right say SAS_2 and bring the economy back to the level of full employment at Y_2 . However, according to Keynes, wages are not as flexible as what the classical economists believed and are 'sticky downward,' meaning wages will not adjust rapidly to accommodate the unemployed. Therefore, recession, once set in, would persist for a long time. How does the government intervene? The government responds by increasing government expenditures in adequate quantities so as to cause a shift in the aggregate demand curve to the right from AD_1 to AD_2 . In doing so, the government may have to incur a budget deficit by spending more than its current receipts. As a response to the shift in AD, output increases as the total demand in the economy increases. Firms respond to growing demand by producing more output. In order to increase their output in the short-run, firms must hire more workers. This has the effect of reducing unemployment in the economy.

A relevant question here is how much should be the increase in government expenditure? Should it be exactly the same amount as the required level of increase in output? ($Y_2 - Y_1$)? The answer is that it depends upon the GNP gap created due to recession and also on the size of multiplier which depends upon

marginal propensity to consume. The increase in government expenditures need not be equal to the difference between Y_2 and Y_1 , it can be much less. The concept of 'fiscal multiplier,' i.e. the response of gross domestic product to an exogenous change in government expenditures is of use to determine the required level of government expenditure. Any increase in autonomous aggregate expenditures (including government expenditures) has a multiplier effect on aggregate demand. As such, the government needs to incur only a lesser amount of expenditure to cause aggregate demand to increase by the amount necessary to achieve the natural level of real GDP.

A pertinent question here is; from where will the government find resources to increase its expenditure? We know that if government resorts to increase in taxes, it is self-defeating as increased taxes will reduce the disposable incomes and therefore aggregate demand. The government should in such cases go for a deficit budget which may be financed either through borrowing or through monetization (creation of additional money to finance expenditure). The former runs the risk of crowding out private spending.

It may however be noted that expansionary fiscal policy will be successful only if there is accommodative monetary policy. If interest rates rise as a result of increased demand for money but money supply does not rise concurrently, then private investment will be adversely affected. If interest rates remain unchanged, private investment will not be affected badly and a rise in government expenditure will have full effect on national income and employment.

4.5.2 Contractionary Fiscal Policy

When aggregate demand rises beyond what the economy can potentially produce by fully employing its given resources, it gives rise to inflationary pressures in the economy. The aggregate demand may rise due to large increase in consumption demand by households or investment expenditure by entrepreneurs, or government expenditure. In these circumstances inflationary gap occurs which tends to bring about rise in prices. Under such circumstances, a contractionary fiscal policy will have to be used.

Contractionary fiscal policy refers to the deliberate policy of government applied to curtail aggregate demand and consequently the level of economic activity. In other words, it is fiscal policy aimed at eliminating an inflationary gap. This is achieved by adopting policy measures that would result in the aggregate demand

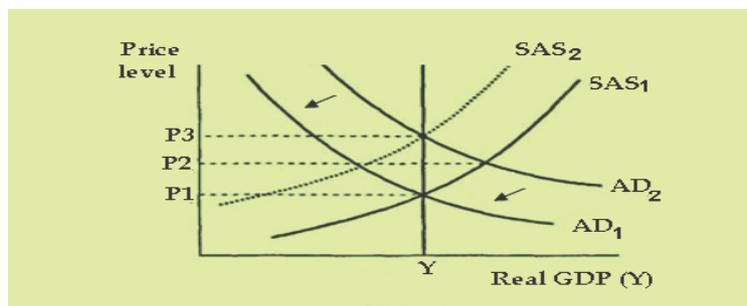
curve (AD) shifting to the left so the equilibrium may be established at the full employment level of real GDP. This can be achieved either by:

1. Decrease in government spending: With decrease in government spending, the total amount of money available in the economy is reduced which in turn trim down the aggregate demand.
2. Increase in personal income taxes and/or business taxes: An increase in personal income taxes reduces disposable incomes leading to fall in consumption spending and aggregate demand. An increase in taxes on business profits reduces the surpluses available to businesses, and as a result, firms' investments shrink causing aggregate demand to fall. Increased taxes also dampen the prospects of profits of potential entrants who will respond by holding back fresh investments.
3. A combination of decrease in government spending and increase in personal income taxes and/or business taxes

We shall analyze the overall impact of these abovementioned measures with the help of the following figure.

Figure 2.4.2

Contractionary Fiscal policy for Combating Inflation



As real GDP rises above its natural level, (Y in the above figure), prices also rise, prompting an increase in wages and other resource prices. This causes the SAS curve to shift from SAS_1 to SAS_2 . As a result, the price level goes up from P_1 to P_3 . Nevertheless, the real GDP remains the same at Y . The government now needs to intervene to control inflation by engaging in a contractionary fiscal policy designed to reduce aggregate demand so that the aggregate demand curve (AD_1) does not shift to AD_2 . The government needs

to reduce expenditures or raise taxes only by a small amount because of the multiplier effects that such actions may have. Even as expenditures are reduced, the government may attempt to enhance public revenues in order to generate a budget surplus. In any economy, on account of political, social and defence considerations government spending cannot be reduced beyond a particular limit. However, the government can change its expenditure in response to inflationary pressures.

4.6 FISCAL POLICY FOR LONG-RUN ECONOMIC GROWTH

We have been discussing so far about how fiscal policy acts as an effective tool for managing aggregate demand in the short-run to help maintain price stability and employment levels. However, demand-side policies unaccompanied by policies to stimulate aggregate supply cannot produce long-run economic growth. Fiscal policies such as those involving infrastructure spending generally have positive supply-side effects. When government supports building a modern infrastructure, the private sector is provided with the requisite overheads it needs. Government provision of public goods such as education, research and development etc. provide momentum for long-run economic growth. A well designed tax policy that rewards innovation and entrepreneurship, without discouraging incentives will promote private businesses who wish to invest and thereby help the economy grow.

4.7 FISCAL POLICY FOR REDUCTION IN INEQUALITIES OF INCOME AND WEALTH

Many developed and developing economies are facing the challenge of rising inequality in incomes and opportunities. Fiscal policy is a chief instrument available for governments to influence income distribution and plays a significant role in reducing inequality and achieving equity and social justice. The distribution of income in the society is influenced by fiscal policy both directly and indirectly. While current disposable incomes of individuals and corporates are dependent on direct taxes, the potential for future earnings is indirectly influenced by the nation's fiscal policy choices.

Government revenues and expenditure have traditionally been regarded as important instruments for carrying out desired redistribution of income. We shall

see a few such measures as to how each of these can be manipulated to achieve desired distributional effects.

- A progressive direct tax system ensures that those who have greater ability to pay contribute more towards defraying the expenses of government and that the tax burden is distributed fairly among the population.
- Indirect taxes can be differential: for example, the commodities which are primarily consumed by the richer income group, such as luxuries, are taxed heavily and the commodities the expenditure on which form a larger proportion of the income of the lower income group, such as necessities, are taxed light.
- A carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of the society. This is done through spending programmes targeted on welfare measures for the disadvantaged, such as
 - (i) poverty alleviation programmes
 - (ii) free or subsidized medical care, education, housing, essential commodities etc. to improve the quality of living of poor
 - (iii) infrastructure provision on a selective basis
 - (iv) various social security schemes under which people are entitled to old-age pensions, unemployment relief, sickness allowance etc.
 - (v) subsidized production of products of mass consumption
 - (vi) public production and/ or grant of subsidies to ensure sufficient supply of essential goods, and
 - (vii) strengthening of human capital for enhancing employability etc.

Choice of a progressive tax system with high marginal taxes may act as a strong deterrent to work, save and invest. Therefore, the tax structure has to be carefully framed to mitigate possible adverse impacts on production and efficiency. Additionally, the redistributive fiscal policy and the extent of spending on redistribution should be consistent with the macroeconomic policy objectives of the nation.



4.8 LIMITATIONS OF FISCAL POLICY

We have seen above that discretionary fiscal policy is the conscious manipulation of government spending and taxes to influence the economy. However, there are some significant limitations in respect of choice and implementation of fiscal policy.

1. One of the biggest problems with using discretionary fiscal policy to counteract fluctuations is the different types of lags involved in fiscal-policy action. There are significant lags are:
 - Recognition lag: The economy is a complex phenomenon and the state of the macro economic variables is usually not easily comprehensible. Just as in the case of any other policy, the government must first recognize the need for a policy change.
 - Decision lag: Once the need for intervention is recognized, the government has to evaluate the possible alternative policies. Delays are likely to occur to decide on the most appropriate policy.
 - Implementation lag: even when appropriate policy measures are decided on, there are possible delays in bringing in legislation and implementing them.
 - Impact lag: impact lag occurs when the outcomes of a policy are not visible for some time.
2. Fiscal policy changes may at times be badly timed due to the various lags so that it is highly possible that an expansionary policy is initiated when the economy is already on a path of recovery and vice versa.
3. There are difficulties in instantaneously changing governments' spending and taxation policies.
4. It is practically difficult to reduce government spending on various items such as defence and social security as well as on huge capital projects which are already midway.
5. Public works cannot be adjusted easily along with movements of the trade cycle because many huge projects such as highways and dams have long gestation period. Besides, some urgent public projects cannot be postponed for reasons of expenditure cut to correct fluctuations caused by business cycles.

6. Due to uncertainties, there are difficulties of forecasting when a period of inflation or deflation may set in and also promptly determining the accurate policy to be undertaken.
7. There are possible conflicts between different objectives of fiscal policy such that a policy designed to achieve one goal may adversely affect another. For example, an expansionary fiscal policy may worsen inflation in an economy
8. Supply-side economists are of the opinion that certain fiscal measures will cause disincentives. For example, increase in profits tax may adversely affect the incentives of firms to invest and an increase in social security benefits may adversely affect incentives to work and save.
9. Deficit financing increases the purchasing power of people. The production of goods and services, especially in underdeveloped countries may not catch up simultaneously to meet the increased demand. This will result in prices spiralling beyond control.
10. Increase in government borrowing creates perpetual burden on even future generations as debts have to be repaid. If the economy lags behind in productive utilization of borrowed money, sufficient surpluses will not be generated for servicing debts. External debt burden has been a constant problem for India and many developing countries.
11. If governments compete with the private sector to borrow money for spending, it is likely that interest rates will go up, and firms' willingness to invest may be reduced. Individuals too may be reluctant to borrow and spend and the desired increase in aggregate demand may not be realized. This phenomenon is described below.

4.8.1 Crowding Out

Some economists are of the opinion that government spending would sometimes substitute private spending and when this happens the impact of government spending on aggregate demand would be smaller than what it should be and therefore fiscal policy may become ineffective. The crowding out view is that a rapid growth of government spending leads to a transfer of scarce productive resources from the private sector to the public sector where productivity might be lower. An increase in the size of government spending during recessions will 'crowd-out' private spending in an economy and lead to reduction in an economy's ability to self-correct from the recession, and possibly also reduce the economy's prospects of long-run economic growth.

Crowding out effect is the negative effect fiscal policy may generate when money from the private sector is 'crowded out' to the public sector. In other words, when spending by government in an economy replaces private spending, the latter is said to be crowded out. When the government increases its spending by borrowing from the loanable funds from the market the demand for loans increases and this pushes the interest rates up. Private investments are sensitive to interest rates and therefore some private investment spending is discouraged. Similarly, when government increases the budget deficit by selling bonds or treasury bills, the amount of money with the private sector decreases and consequently interest rates will be pushed up. As a result, private investments, especially the ones which are interest –sensitive, will be reduced. Fiscal policy becomes ineffective as the decline in private spending partially or completely offset the expansion in demand resulting from an increase in government expenditure. Nevertheless, during deep recessions, crowding-out is less likely to happen as private sector investment is already minimal and therefore there is only insignificant private spending to crowd out. Moreover, during a recession phase the government would be able to borrow from the market without increasing interest rates.



4.9 CONCLUSION

Well designed and timely fiscal responses are necessary for an economy which is either going through stages of recession or inflation or on a drive to achieve economic growth and/ or equitable distribution of income. During periods of recession when there are idle productive capacity and unemployed workers, an increase in aggregate demand will generally bring about an increase in total output without changing the level of prices. On the contrary, if an economy is functioning at full employment, an expansionary fiscal policy will exert pressure on prices to go up and will have no impact on total output. Fiscal policy is also a potent instrument for bringing in economic growth and equality in distribution of income.

Fiscal Policy Responses of Government of India to COVID 19

The fiscal policy measures during the pandemic aimed to ensure extensive food security, employment support, quality livelihoods and mitigation of the economic impact of the pandemic on businesses, especially small businesses.

On March 26, 2020, the Finance Minister announced a stimulus package valued at approximately 0.8 percent of GDP. The significant components of the package include:

- cash transfers to lower-income households and transfers in kind such as food items, cooking gas etc
- insurance coverage for workers in the healthcare sector;
- wage support to low-wage workers who continued working
- Support in the form of easing the criteria for receiving benefits in the event of job loss.

These measures are in addition to a previous commitment by the Prime Minister amounting to an additional 150 billion rupees (about 0.1 percent of GDP) allocated to health infrastructure, including for testing facilities for COVID-19, personal protective equipment, isolation beds, ICU beds and ventilators.

Nearly all state governments adopted measures to support the health and wellbeing of lower-income households.

- The measures by state governments varied from state to state and included direct transfers in the form of free food, free rations and cash transfers.
- on an aggregate, the measures till July, 2020 amount to approximately 0.2 percent of India's GDP.

During May, 2020 many new measures (forming about 2.7 percent of GDP), were announced, including many measures targeting businesses. These include

- support for poor households, especially migrants and farmers (about 1.5 percent of GDP),
- targeted support for the agricultural sector (about 0.7 percent of GDP),
- expansion of existing programs providing work opportunities to low-wage labourers (about 0.2 percent of GDP).

The business-support package composed of;

- (a) financial sector measures for micro, small, and medium-sized enterprises and non-bank financial companies;
- (b) liquidity injection for electricity distribution companies; and a reduction in up-front tax deductions for workers.

- (c) measures to ease the tax compliance burden across different sectors included postponement of select tax-filing and other compliance deadlines.
- (d) reduction of interest rate charged on overdue filings of small businesses to half of what is payable.
- (e) additional support was declared for migrants as well as farmers, mainly in the form of providing concessional credit to farmers as well as credit facility for street vendors. Infrastructure development constituted the major support for the agricultural sector.

To ensure food security, food provision was done for non-ration card holders among vulnerable households (mainly migrants) till November, 2020

SUMMARY

- From a macro-economic perspective, the focus of fiscal policy is on the aggregate economic activity of governments, say, aggregate expenditure, taxes, transfers and issues of government debts and deficits and their effects on aggregate economic variables such as total output, total employment, unemployment rate, inflation, overall economic growth etc.
- Laissez-faire approach advocated limited role of government resulting in non-recognition of the significance of fiscal policy as a strategy for achieving certain socio-economic objectives till 1930.
- Through the use of budgetary instruments, such as public revenue, public expenditure, public debt and deficit financing, governments intend to favourably influence the level of economic activity of a country.
- The objectives of fiscal policy may vary from country to country, but generally they are: achievement and maintenance of full employment, maintenance of price stability, acceleration of the rate of economic development and equitable distribution of income and wealth.
- Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate demand, output and employment.
- Non-discretionary fiscal policy or automatic stabilizers are part of the structure of the economy and are 'built-in' fiscal mechanisms that operate automatically to reduce the expansions and contractions of the business cycle.

- Automatic stabilisation occurs through automatic adjustments in government expenditures and taxes without any deliberate governmental action i.e. by limiting the increase in disposable income during an expansionary phase and limiting the decrease in disposable income during the contraction phase of the business cycle.
- During recession incomes are reduced leading to lower tax payments. Government expenditures increase due to increased transfer payments. These together provide proportionally more disposable income available for consumption spending to households
- When an economy expands, employment increases, incomes rise and the amount of transfer payments decline resulting in proportionally less disposable income available for consumption expenditure
- Discretionary fiscal policy refers to deliberate policy actions on the part of the government to change the levels of expenditure and taxes to influence the level of national output, employment and prices.
- Since $GDP = C + I + G + NX$, governments can influence economic activity (GDP), by controlling G directly and influencing C, I, and NX indirectly, through changes in taxes, transfer payments and expenditure.
- The Keynesian school is of the opinion that fiscal policy can have very powerful effects in altering aggregate demand, employment and output in an economy when the economy is operating at less than full employment levels and when there is a need to offer stimulus to demand.
- The tools of fiscal policy are taxes, government expenditure, public debt and the budget.
- Expansionary fiscal policy is designed to stimulate the economy during the contractionary phase of a business cycle and is accomplished by increasing aggregate expenditures and aggregate demand through an increase in all types of government spending and / or a decrease in taxes
- Contractionary fiscal policy is designed to restrain the levels of economic activity of the economy during an inflationary phase by decreasing the aggregate expenditures and aggregate demand through a decrease in all types of government spending and/ or an increase in taxes
- A recession sets in with a period of declining real income, as measured by real GDP and a situation of rising unemployment.

- A recessionary gap, also known as a contractionary gap, is said to exist if the existing levels of aggregate production is less than what would be produced with the full employment of resources
- Government expenditure, an important instrument of fiscal policy, generates incomes and also has indirect effect in the form of working of multiplier.
- Pump priming involves a one-shot injection of government expenditure into a depressed economy with the aim of boosting business confidence and encouraging larger private investment. It is a temporary fiscal stimulus in order to set off the multiplier process.
- Compensatory spending is said to be resorted to when the government spending is carried out with the obvious intention to compensate the deficiency in private investment.
- Taxes determine the size of disposable income in the hands of general public which in turn determines aggregate demand and possible inflationary and deflationary gaps
- During recession and depression, the tax policy is framed to encourage private consumption and investment. A general reduction in income taxes and low corporate taxes increases aggregate demand and investments respectively.
- During inflation new taxes can be levied and the rates of existing taxes are raised to reduce disposable incomes and to wipe off the surplus purchasing power
- Borrowing from the public through the sale of bonds and securities curtails the aggregate demand in the economy. Repayments increase the availability of money in the economy and increase aggregate demand.
- Budget is widely used as a policy tool to stimulate or contract aggregate demand as required.
- Fiscal policy also aims to attain long-run economic growth through policies to stimulate aggregate supply. Fiscal policy is a chief instrument available for governments to influence income distribution and plays a significant role in reducing inequality and achieving equity and social justice.
- Contractionary fiscal policy is aimed at eliminating inflationary gaps and to trim down the aggregate demand by decrease in government spending and

an increase in personal income taxes and/or business taxes causing less disposable incomes and lower incentives to invest.

- Fiscal policy suffers from limitations such as limitations in respect of choice of appropriate policy, recognition lag, decision lag, implementation lag, impact lag, inappropriate timing, difficulties of forecasting due to uncertainties, possible conflicts between different objectives, possibility of generating disincentives, practical difficulty to reduce government expenditures and the possibility of certain fiscal measures replacing private spending or crowding out private spending.

TEST YOUR KNOWLEDGE

I Multiple Choice Type Questions CHAPTER-2 UNIT-4

1. If Real GDP is continuously declining and the rate of unemployment in the economy is increasing, the appropriate policy should be to
 - (a) Increase taxes and decrease government spending
 - (b) Decrease both taxes and government spending
 - (c) Decrease taxes and increase government spending
 - (d) Either (a) or (c)
2. Which of the following are likely to occur when an economy is in an expansionary phase of a business cycle?
 - A. Rising unemployment rate
 - B. Falling unemployment rate
 - C. Rising inflation rate
 - D. Deflation
 - E. Falling or stagnant wage for workers
 - F. Increasing tax revenue
 - G. Falling tax revenue
 - (a) A, B and F are most likely to occur
 - (b) B, C and F and are most likely to occur
 - (c) D, E and F are most likely to occur

- (d) A, E and G are most likely to occur
3. Fiscal policy refers to
- (a) use of government spending, taxation and borrowing to influence the level of economic activity
 - (b) government activities related to use of government spending for supply of essential goods
 - (c) use of government spending, taxation and borrowing for reducing the fiscal deficits
 - (d) (a) and (b) above
4. During recession fiscal policy of the government should be directed towards
- (a) Increasing the taxes and reducing the aggregate demand
 - (b) Decreasing taxes to ensure higher disposable income
 - (c) Increasing government expenditure and increasing taxes
 - (d) None of the above
5. Automatic stabilizers
- (a) work towards stimulating aggregate spending during economic expansion and reducing aggregate spending during the recessionary phase.
 - (b) provide proportionally more disposable income available for consumption spending to households during expansion
 - (c) work towards stimulating aggregate spending during the recessionary phase and reducing aggregate spending during economic expansion.
 - (d) provide proportionally less disposable income available for consumption spending to households during contraction
6. Discretionary fiscal policy
- (a) refers to the working of built-in stabilizers to change the levels of expenditure and taxes to influence the level of national output, employment and prices
 - (b) refers to how governments may directly as well as indirectly influence the level of taxes to attain export competitiveness

- (c) refers to deliberate policy actions on the part of the government to change the levels of expenditure and taxes to influence the level of national output, employment and prices
 - (d) refers to deliberate policy actions on the part of the government to change the composition of taxes to influence compliance
7. Keynesian economists believe that
- (a) fiscal policy can have very powerful effects in altering aggregate demand, employment and output in an economy
 - (b) when the economy is operating at less than full employment levels and when there is a need to offer stimulus to demand fiscal policy is of great use
 - (c) Wages are flexible and therefore business fluctuations would be automatically adjusted
 - (d) (a) and(b) above
8. Which of the following may ensure a decrease in aggregate demand during inflation
- (a) decrease in all types of government spending and/ or an increase in taxes
 - (b) increase in government spending and/ or a decrease in taxes
 - (c) decrease in government spending and/ or an decrease in taxes
 - (d) All the above
9. A recession is characterized by
- (a) Declining prices and rising employment
 - (b) Declining unemployment and rising prices
 - (c) Declining real income and rising unemployment
 - (d) Rising real income and rising prices
 - (e)
10. Discretionary fiscal policy differs from non-discretionary fiscal policy in which of the following manner?

- (a) Discretionary fiscal policy is concerned with government spending and non discretionary fiscal policy deals with tax policy
 - (b) Discretionary fiscal policy is concerned with government spending and non discretionary fiscal policy deals government revenues
 - (c) Discretionary fiscal policy is concerned with deliberate actions on the part of the government and non-discretionary fiscal policy works automatically
 - (d) Discretionary fiscal policy is built into the system and non discretionary fiscal policy is concerned with deliberate actions on the part of government
11. Which one of the following is an example of discretionary fiscal policy?
- (a) A tax-cut aimed at increasing the disposable income and spending
 - (b) A reduction in government expenditure to contain inflation
 - (c) An increase in taxes and decrease in government expenditure to control inflation
 - (d) All the above
12. Which of the following would illustrate a recognition lag?
- (a) The time required to identify the appropriate policy
 - (b) The time required to identify to pass a legislation
 - (c) The time required to identify the need for a policy change
 - (d) The time required to establish the outcomes of fiscal policy
13. Which statement (s) is (are) correct about crowding out?
- I. A decline in private spending may be partially or completely offset the expansion of demand resulting from an increase in government expenditure.
 - II. Crowding out effect is the negative effect fiscal policy may generate when money from the private sector is 'crowded out' to the public sector.
 - III. When spending by government in an economy increases; government spending would be crowded out.

- IV. Private investments, especially the ones which are interest –sensitive, will be reduced if interest rates rise due to increased spending by government
- (a) I and III only
(b) I, II, and III
(c) I, II, and IV
(d) III only
14. Which of the following policies is likely to shift an economy's aggregate demand curve to the right?
- (a) Increase in government spending
(b) Decrease in taxes
(c) A tax cut along with increase in public expenditure
(d) All the above
15. Identify the incorrect statement
- (a) A progressive direct tax system ensures economic growth with stability because it distributes the burden of taxes equally
(b) A carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of the society.
(c) There are possible conflicts between different objectives of fiscal policy such that a policy designed to achieve one goal may adversely affect another
(d) An increase in the size of government spending during recessions may possibly 'crowd-out' private spending in an economy.

II Short Answer Type Questions

1. Define fiscal policy.
2. What are the objectives of fiscal policy?
3. Distinguish between discretionary and non-discretionary fiscal policy.
4. Explain how automatic stabilization brings in stability in an economy.
5. How do built-in stabilizers combat demand-pull inflationary pressures?
6. What are the symptoms of the beginning of a recession?

7. Explain the term 'recessionary gap'.
8. What should be the tax policy during recession and depression?
9. What is the consequence excessive taxation will have on business?
10. Distinguish between 'pump priming' and the 'compensatory spending'.
11. Describe the term expansionary fiscal policy.
12. What is meant by crowding out?
13. Explain the use of fiscal policy for economic growth.
14. What types of fiscal policy measures are useful for redistribution of income in an economy?
15. What are the measures undertaken in a contractionary fiscal policy?
16. Point out the limitations of fiscal policy.

III Long Answer Type Questions

1. Explain the role of fiscal policy in achieving economic stability.
2. Define the terms 'recessionary gap' and 'inflationary gap'. What would be the appropriate fiscal policy measures to eliminate 'recessionary gap' and 'inflationary gap'? Illustrate your answer.
3. Explain the term contractionary fiscal policy. What are limitations in pursuing a contractionary fiscal policy?
4. Under what circumstances do governments pursue expansionary fiscal policy? What are the instruments for expansionary fiscal policy?
5. List out the factors that limit the effectiveness of fiscal policy. Explain the possible impacts on private sector.
6. Using aggregate demand and supply diagrams, examine the impact of fiscal policy on national output.
7. Unemployment and recessionary trends can be solved through the use of fiscal policies. Do you agree? Justify your answer.

IV Application Oriented Questions

1. The government of Country X, an underdeveloped country, having a severe problem of unemployment of labour embarks on a massive development programme. It has recognized the imminent need for boosting up

investments to take the country to a higher than average growth trajectory. The following steps were taken by the government:

- i) Invited tenders for a huge network of highways, solar energy generation, communication systems and computerized systems
- ii) Large number of schools throughout the country
- iii) Research grants for universities and private research institutes
- iv) Announced a number of free healthcare programmes for all
- v) All citizens assured of social security
- vi) Increase in payments under existing social security schemes
- vii) Tax exemption limit raised for individuals, instituted progressive taxes with high marginal rates - increased corporate taxes

Very soon prices started spiralling and there was general unrest among people especially the poor.

- i) Analyze each of the above measures from a fiscal policy perspective.
- ii) Why did overall prices increase?
- iii) What policies do you suggest to solve the problem of price rise?
- iv) What are the limitations of such policies?

2. In the above example, suppose that the increase in government spending has been 5 billion. Assume that the marginal propensity to consume of people is equal to 0.6.

- (i) what will be the government spending multiplier?
- (ii) What impact would a 5 billion increase in government expenditure have on equilibrium GDP?

3. For an Economy with the following specifications

Consumption, $C = 50 + 0.75 Y_d$

Investment, $I = 100$

Government Expenditure, $G = 200$

Transfer Payments, $R = 110$

Income Tax = $0.2Y$

Calculate the equilibrium of income and the value of expenditure multiplier.

ANSWERS/HINTS

I. Multiple Choice Type Questions

1. (c) 2. (b) 3. (a) 4. (b) 5. (c) 6. (c)
7. (d) 8. (a) 9. (c) 10. (c) 11. (d) 12. (c)
13. (c) 14. (d) 15. (a)

II. Short Answer Type Questions

1. Use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate demand, output and employment.
2. Objectives vary from country to country - achievement and maintenance of full employment, maintenance of price stability, acceleration of the rate of economic development, and equitable distribution of income and wealth.
3. Automatic stabilisation occurs through automatic adjustments in government expenditures and taxes (non-discretionary policy) without any deliberate governmental action - stimulate aggregate spending during the recessionary phase and reduce aggregate spending during economic expansion. Discretionary fiscal policy (refer hint (1) above)
4. Refer hint (3) above
5. Employment increases, with progressive system of taxes - higher taxes - lower disposable incomes - higher corporate tax payments - lower surplus - decline in consumption and investments - decline in aggregate demand.
6. Declining GDP - growing unemployment - declining prices - lower aggregate demand
7. Also known as a contractionary gap, the difference between the actual aggregate demand and the aggregate demand which is required to be filled-in to establish the equilibrium at full employment level of income.
8. Tax policy to encourage private consumption and investment - general reduction in income taxes - higher disposable incomes - higher consumption - low corporate taxes - further investment.
9. Less potential profits - disincentives - stifles new investments - less growth

10. Pump priming - certain volumes of public spending to revive the economy; compensatory spending is government spending to compensate for the deficiency in private investment
11. Designed to stimulate the economy – aim to increase aggregate expenditures and aggregate demand- increase in government spending and / or a decrease in taxes.
12. Negative effect of fiscal policy when spending by government in an economy replaces private spending -money from private sector is 'crowded out' to the public sector- decline in private spending - fiscal policy becomes ineffective
13. Expenditure on developmental activities- public goods such as education, research and development etc.-tax policy that rewards innovation and entrepreneurship
14. Progressive direct tax system - differential indirect taxes –use of tax proceeds for social development.
15. Deliberate policy to curtail aggregate demand - eliminate an inflationary gap – reduce the level of economic activity -decrease in government spending -increase in personal income taxes and/or business taxes -a combination of decrease in government spending and increase in personal income taxes and/or business taxes.
16. See 4.8

III Hints to Long Answer Type Questions

- I. The length of the answer should relate to the marks allotted.
- II. The answer should be structured in three parts in the following style.
 - (a) Explain the economic fundamentals underlying the action/issue by integrating the course material in innovative ways; not necessarily confined to one unit. This part provides an opportunity for students to explain their understanding of the underlying theory. The examiner may easily discern the level of cognition of the student. This should be a compulsory component with a reasonably high proportion of marks earmarked.
 - (b) Analyse the issue at hand (given the framework and tools) and explain the policy position by applying the fundamentals as explained in (a) above.

- (c) Substantiate with illustrations from current economic scenario

IV Application Oriented Questions.

1.
 - (i) Fiscal policy aimed at economic growth and desired redistribution of income - This is done through spending programmes targeted on welfare measures for the disadvantaged for e.g. poverty alleviation programmes, free or subsidized amenities to improve the quality of living of poor, infrastructure provision on a selective basis, strengthening of human capital for enhancing employability, Government provision of public goods such as education, research and development etc. provide momentum for long-run economic growth - A well designed tax policy that rewards innovation and entrepreneurship, without discouraging incentives will promote private businesses who wish to invest and thereby help the economy grow- A progressive direct tax system ensures that those who have greater ability to pay contribute more towards defraying the expenses of government and that the tax burden is distributed fairly among the population- carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of the society-
 - (ii) Conflict with stabilization functions of state policy - Government expenditure injects more money into the economy and stimulates demand in each case, disposable incomes increase- aggregate demand increases – illustrate with shift in AD curve- No corresponding increase in output- inflation sets in
 - (iii) Remedy through fiscal policy- reduce aggregate demand – contractionary fiscal policy–increase aggregate supply - illustrate using figure
 - (iv) Conflict of objectives -Possible lags - long gestation periods - politically unviable to reduce expenditure-high taxes lead to disincentives to invest.
2.
 - (i) The government spending multiplier when the MPC is 0.6, is $1/(1 - MPC) = 2.5$.

- (ii) A 5 billion increase in government expenditure will change the GDP by $5 \times 2.5 = 12.5$ billion if the MPC = 0.6.

3. The level of disposable income Y_d is given by

$$\begin{aligned} Y_d &= Y - \text{Tax} + \text{Transfer Payments, Where, Transfer Payment} = 110 \\ &= Y - 0.2 Y + 110 = 0.8Y + 110, \end{aligned}$$

$$\begin{aligned} \text{and } C &= 50 + 0.75 Y_d \\ &= 50 + 0.75(0.8Y + 110) \text{ (where } Y_d = 0.8Y + 110) \\ &= 50 + (0.75 \times 0.8Y) + (0.75 \times 110) = 132.50 + 0.6Y \end{aligned}$$

$$C = 132.50 + 0.6 Y$$

Now $Y = C + I + G$, Where $C = 132.50 + 0.6Y$, $I = 100$, $G = 200$ (Given)

$$\begin{aligned} Y &= (132.50 + 0.6Y) + 100 + 200 \\ &= 432.50 + 0.6Y \end{aligned}$$

$$Y - 0.6Y = 0.4Y = 432.50$$

$$\text{or } Y = 432.50 / 0.4 = 1,081.25 \text{ Crores}$$

$$\text{Expenditure Multiplier} = \frac{1}{1-b} = \frac{1}{1-0.6} = 2.5 \left(\text{Multiplier in closed economy } \frac{1}{1-b} \right)$$

$$\left(\text{Here } b = \text{MPC} = \frac{\Delta C}{\Delta Y} \right)$$