Government Budget & the Economy

Introduction to Public and Private Goods, Distribution, Stabilisation, Allocation Function and Problem of Free-Rider

Objectives

After going through this chapter, you shall be able to understand the following concepts.

- Public Goods
- Private Goods
- Problem of Free Rider
- Functions of Government- Distribution, Allocation and Stabilisation Functions

Public Goods

Public goods refer to those goods that are ***non-rivalrous*** and ***non-excludable*** in consumption. Street-lights, roads, defence services, etc. are some of the examples of public goods. The property of non-rival consumption means that the consumption of the public goods by one consumer does not reduce the consumption of the other consumers.

This suggests that such goods and services can be used simultaneously by many consumers. On the other hand, the property of non-excludability suggests that no consumer can be excluded from using the good (whether they pay for the good or not). For example- defense services.

Defence services have the property of non-rival and non-excludable consumption. They are non-rival in the sense that the benefits available from the defence services to one citizen do not reduce its benefits for the other citizens. Similarly, defence services are non-excludable in the sense that no citizen can be excluded from availing the benefits of these services whether they pay for it (in form of taxes) or not.

The existence of these two properties makes the pricing of these goods difficult, therefore, these goods are not provided by any private producer in the market. As a result, such goods and services are provided by the government. The basic rationale for providing such goods by the government is to enhance the welfare of the society.

Private Goods

Private goods are those goods that are ***rivalrous*** and ***excludable*** in consumption. These goods are rivalrous as consumption of these goods by one person reduces its availability for the other consumers. The owners of such goods enjoy exclusive property rights over the use of these goods. These goods are excludable as the owner of these goods can exclude others from consuming the goods. For example, if a person is consuming a cup of tea, then the benefits of that cup of tea cannot be enjoyed by others at the same time. In this example, the cup of tea is a private good. Generally, these goods are produced by the private producers with the sole motive of earning profits. Food, clothes, books, etc. are some of the examples of private goods.

Problem of Free Rider

A free rider refers to a consumer who consumes public goods without paying for it or by paying lesser than fair price. The problem of free-rider exists in case of public goods, as these goods are non-excludable i.e. no individual can be excluded from using these goods. Thus, as these goods can be used free of cost, so no individual voluntarily likes to pay for.

For example- no matter whether an individual pays taxes or not, he/she can avail the benefits of the defence services. This increases the tendency of tax-evasion. Thus, the problem of free-rider arises due to the tendency of people to enjoy public goods free of cost by being a free-rider on those who actually pay for the goods.

Distribution, Allocation and Stabilisation Functions

The policies of government in a mixed economy can be basically categorised into two main heads- Taxation policy and Expenditure policy. While the former acts as revenue stream for the government, on the other hand, the latter is concerned with different areas of expenditure.

These two policies together are known as budgetary policy of the government. With the help of the budgetary policy, the government attempts to enhance the welfare of the whole society and to increase the economic growth and development. The effects of revenue and expenditure policies can be categorised into the following functions.

1. Allocation Function

This function is concerned with allocating the resources between the private and public sectors. As the public goods cannot be provided by the private sectors through market mechanism, hence the need for providing such goods is to be fulfilled by the government. In addition to this, private goods cannot be afforded by all, that is, only those who can pay for the goods can avail the benefits of such goods.

But as the public goods are required by all and are essential from welfare point of view, thus, government provide these goods. Consequently, the government need to allocate resources between the public and the private goods in an appropriate and efficient manner.

2. Distribution Function

With economic growth, the distribution of income becomes highly unequal. The gap between the rich and poor sections of society widens. This poses hindrance in the path of economic development and social justice. Therefore, in order to enhance the welfare of all the sections of the society, the government performs its distribution function with the help of the taxation and expenditure policy.

On one hand, through its taxation policy, the government taxes the higher income group and on the other hand, through the expenditure policy (subsidies, transfer payments, etc.), it transfers the purchasing power in the hands of the poor sections of society. With the help of these policies, the government aims at fair distribution of income in the society.

3. Stabilisation Function

This function of the government aims at insulating the economy from major fluctuations. Economy with minimum government intervention is subjected to various fluctuations such as, depression, recession, inflation, political instability, etc. Through its stabilisation function the government aims at providing a cushion against all such fluctuations. It tries to achieve growth with a smooth and efficient functioning of the overall economy. Through appropriate stabilising policy measures, the government controls the rate of inflation and tries to attain the maximum possible employment level in the economy.

Meaning, Objectives and Components of Govt. Budget

Objectives

After going through this chapter, you shall be able to understand the following concepts.

- Meaning and Objectives of Government Budget
- Components of Budget- Budget Receipts and Budget Expenditure
- Types of Budget Receipts- Revenue Receipts and Capital Receipts
- Types of Budget Expenditure- Revenue Expenditure and Capital Expenditure

Meaning of Government Budget

A Government Budget is a financial statement showing item-wise expected government receipts and government payments during a particular financial year. It also presents the government's report on the financial performance during the previous fiscal year.

Objectives of Budget

A Government Budget is not only a financial statement, but also a reflection of the government objectives, policies and their expected effects. The following are the different categories under which the objectives of the government can be classified.

a. Reduction in inequalities of income and wealth
b. Economic stability
c. Reallocation of resources
d. Management of public enterprises

a) Reduction in Inequalities of Income and Wealth

The government through its budgetary policy attempts to promote fair and right distribution of income in an economy. This is done through taxation and expenditure policy. On one hand, through its taxation policy, the government taxes the higher income group and on the other hand, through the expenditure policy (subsidies, transfer payments, etc.), it transfers the purchasing power in the hands of the poor sections of society. With the help of these policies, the government aims at fair distribution of income in the society.

b) Economic Stability

The government also aims at insulating the economy from major fluctuations (like inflation, unemployment) and business cycles such as boom, recession, depression and recovery.

The government through its budgetary policy tries to combat such situations. The major concern of government is to achieve higher economic growth rates while maintaining price and employment stability. This state of economic growth with stability ensures a smooth and efficient functioning of an economy.

c) Reallocation of Resources

This objective of government is related with the allocation of resources to different areas. In a mixed economy, the private producers aim towards profit maximisation, while, the government aims towards welfare maximisation.

The private sector always tend to divert resources towards areas of high profit, while, ignoring areas of social welfare. In such a situation, the government through its budgetary policy reallocates resources to maintain a balance between the social objectives of welfare maximisation and economic objective of profit maximisation.

For example- government levies taxes on socially harmful goods such as tobacco, etc. and provides subsidies for the socially desirable goods such as food grains, kerosene, etc.

d) Management of Public Enterprises

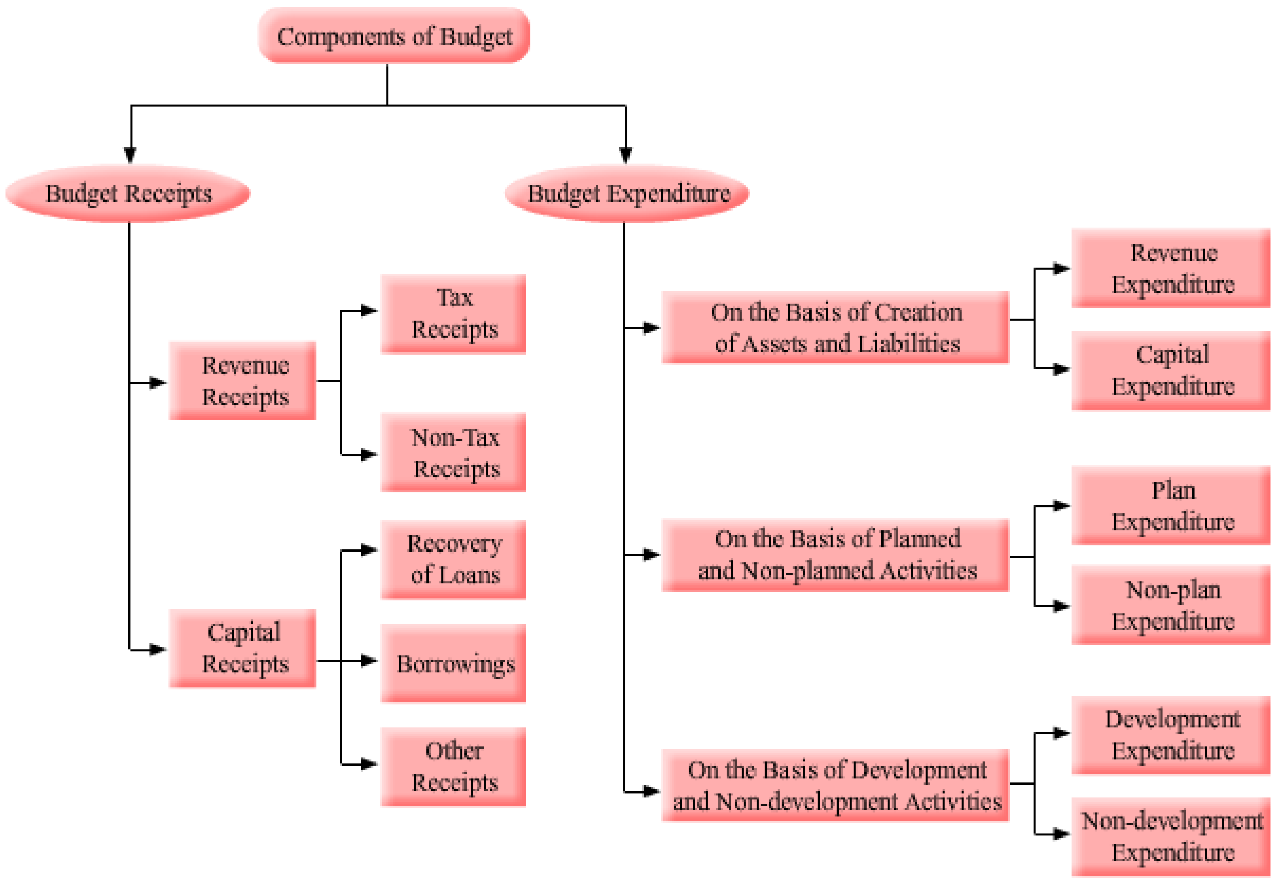
The government also operates and controls different enterprises, which are known as Public Sector Enterprises (PSEs). These enterprises are operated by the government because of two core motives. On one hand, these industries provide those goods which are socially-needed such as, education, hospitals, etc. and on the other hand, these industries help in curbing monopoly in the private sector.

If the areas such as railways, water-lines, etc. would have been left to the private sector, then this would have resulted in the emergence of monopolies. Hence, the government has kept these core areas with itself to provide services at nominal rates, enhancing welfare and also to mould the economy into a desirable shape.

Components of the Budget

Components of the budget can be divided into two broad categories

a. ***Budget Receipts***- It consists of revenue receipts and capital receipts.
b. ***Budget Expenditure***- It consists of revenue expenditure and capital expenditure.



BUDGET RECEIPTS

Budget receipts refer to the estimated money receipts of the government during a particular fiscal year from all sources namely, tax non-tax and capital sources. These receipts imply the total cash inflow of the government during a fiscal year.

Budget receipts can be further classified as- Revenue Receipts and Capital Receipts.

1. *Revenue Receipts*

These are those receipts of the government which neither creates any liability nor it creates any reduction in the assets of the government. These comprises of tax and non-tax receipts, duties and fines, interest and dividends receipts on government investments and assets. These are further classified into:

a. Tax Receipts
b. Non-tax Receipts

a) *Tax Receipts*

A tax is a legally compulsory monetary contribution to the government by different economic units such as household, firms and other economic units. Taxes are imposed by the government on different activities, income, property, production, occupation, etc. The main motive of imposing taxes is to raise revenue and to incur various expenditures for enhancing welfare of the country. The following are the various types of taxes.

i. Direct and indirect taxes
ii. Progressive and regressive taxes
iii. Ad valorem and specific taxes

i. *Direct and Indirect Taxes*

Direct Taxes are those taxes which are borne by the person on whom it is imposed. For example - Income tax, wealth tax, etc. The burden of such taxes cannot be shifted on to other.

As against this, indirect taxes are those taxes in which the burden of tax shifts from the payer to the bearer. For example, in case of sale tax, the seller is liable to pay the tax, however; the burden of bearing the tax falls on the customer. The seller collects the tax from the customer and pays it to the government.

ii. *Progressive and Regressive Taxes*

Progressive taxes are those taxes in which the rate of tax increases with the increase in income of an individual. For example, with 10% rise in the income of a person, the tax rate also increases by 10%, then it is case of progressive taxation.

On the other hand, regressive taxes are those taxes in which the rate of tax falls with a rise in income. For example, with 10% rise in the income of a person, the tax rate decreases by 5%, then it is case of regressive taxation.

iii*. *Advalorem and Specific Taxes

The literally meaning of advalorem implies according to value. Advalorem taxes or value added taxes are indirect taxes which are imposed on the value added at each stage of production. In other words, these taxes are levied as a percentage of the cost of supply.

On the contrast, specific taxes are those taxes where the level of tax is fixed independent of value of the item that is purchased. These are imposed on the basis of the weight or units of the commodity. Tax levied on cigarettes is an example of specific tax.

b) *Non-Tax Receipts*

Non-tax receipts refer to those budget receipts of the government from sources other than taxes such as interest receipts, dividends, fines, duty fees, etc. Various non-tax receipts of the government can be classified as:

i. ***Fees and License***- The government receives fees in return of various services provided by it to the people. *Example*- college fees, passport fees, registration fees, etc.

ii. ***License Fees***- These refer to the fees that are received by the government in return of the allowances granted to the people to perform certain activities. *Example*- Fees received from issue of import licenses.

iii. ***Escheat***- Escheat refers to the income from a property of a person who dies without having any legal heirs. In other words, the government acquires legal right over a property which has no claimant.

iv. ***Fines and Penalties***- Fines and penalties are imposed by the government on those who boycott law.

v. ***Forfeitures***- Forfeitures refer to the penalties imposed by the court for non-compliance with its orders.

vi. ***Gifts and Grants***- Gifts, grants and donations received by the government in events of natural calamity, war, etc. also form a source of revenue for the government.

vii. ***Income from Public Enterprises***- Income and profits from various enterprises owned by the government such as railways, SAIL, etc. forms an important source of revenue for the government.

viii. ***Special Assessment***- Special assessment refers to those payments that are made by the owners of property who have experienced capital gains as a result of the developmental activities of the government. For example, construction of expressways, dams, rail lines, etc, raises the value of neighbourhood properties.

2. Capital Receipts

The second component of the budget receipts is the capital receipts. On contrast to the revenue receipts, capital receipts refer to those receipts of the government, which cause a reduction in the government assets and also create a liability for the government. The capital receipts can further be classified into following three categories.

i. *Recovery of Loans*

The central government often offers loans to the state government and union territories for various purposes. The recovery of such loans forms a part of the receipts for the government. The recoveries of such loans are treated as capital receipts because loans cause a reduction in the financial assets of the government.

ii. *Borrowings and Other Liabilities*

Borrowing of funds by the government creates liability for it. Therefore, the receipts from the borrowing activities of the government are treated as capital receipts. A government can borrow funds from the following sources.

a. Public
b. The Central Bank
c. Foreign governments
d. International Monetary Institutions such as, IMF, World Bank, etc.

iii. *Other Receipts*

These include capital receipts from sources other than borrowings and recovery of loans. One of the main components of other receipts is 'disinvestment'. Disinvestment refers to selling a part or whole of the shares of the enterprises that are owned by the government.

As disinvestment results in the reduction of government assets, consequently, is treated as capital receipts.

BUDGET EXPENDITURE

Budget expenditure refers to the estimated money expenditure by the government on various social, economic and political activities in the country during a particular financial year. The budget expenditure can also be classified on three bases.

1. On the basis of creation of assets and liabilities

a. **Revenue Expenditure-** This refers to the government expenditure which does not cause any reduction in government liabilities and also does not create assets for the government. For example- expenditure on salaries, pensions, subsidies, interest payments, etc.

b. **Capital Expenditure-** This refers to that government expenditure, which causes reduction in the government liabilities as well as creates assets for the government. For example- expenditure on purchasing shares, bonds, etc.

2. On the basis of planned and non-planned activities

a. **Plan Expenditure-** This refers to that budget expenditure which is incurred by the government on the planned programmes of the five year plan. For example- expenditure on different economic sectors such as agriculture, health, etc.

b. **Non-Plan Expenditure-** This refers to that budget expenditure which is not planned. This expenditure are expended on programmes which are not included in the five year plans. For example, relief funds given to the rail accident victims, flood relief campaigns, etc.

3. On the basis of development and non-developmental activities

a. **Development Expenditure-** This refers to that budget expenditure which is incurred by the government on economic growth and development activities. For example, expenditure on education, development of infrastructures, etc.

b. **Non-Development Expenditure-** This refers to that budget expenditure which is incurred on the non-development activities. This expenditure do not directly contribute to the national income but accelerates the process of economic growth and development. For example, expenditure on administration, law and order, transfer payments, etc.

Measures of Budget Deficit and Fiscal Policy

Objectives

After going through this chapter, you shall be to understand the following concepts.

- Budget Deficit and its Types
- Revenue Deficit and its Implications
- Fiscal Deficit and its Implications
- Measures to Correct Budgetary Deficit
- Fiscal Policy and Budget Deficit
- Balanced Budget Multiplier
- Fiscal Responsibility and Budget Management Act, 2003 (FRBM Act)

Introduction

As we know the government budget comprises of two main components- Budget receipts and Budget expenditure.

Budget Receipts- These refer to the estimated money receipts of the government during a particular fiscal year from all sources namely, tax, non-tax and capital sources. These receipts imply the total cash inflow of the government during a fiscal year.

Budget Expenditure- It refers to the estimated money expenditure by the government on various social, economic and political activities in the country during a particular financial year.

Budget Deficit- It refers to the excess of total budget expenditure over the total budget receipts. In other words, budget deficit implies to a situation where the total budget receipts of the government falls short of the total budget expenditure of the government. That is,

Budget Deficit = Total Budget Expenditure – Total Budget Receipts

Types of Budget Deficit

The budget deficit is of the following three types.

a. Revenue Deficit

b. Fiscal Deficit

c. Primary Deficit

a. Revenue Deficit

As we know the government has revenue receipts in the form of tax receipts and non-tax receipts that neither creates any liability nor creates any reduction in the assets of the government. On the other hand, the government incurs certain expenditure known as revenue expenditure (such as expenditure on salaries, pensions, subsidies, interest payments, etc.) that does not cause any reduction in the government liabilities and also does not create any assets for the government. Such expenditure refers to the regular consumption and administrative expenditure of the government. Thus, revenue deficit refers to the ***excess of revenue expenditure over revenue receipts***. That is,

Revenue Deficit = Revenue Expenditure – Revenue Receipts

Implications of Revenue Deficit

A high revenue deficit implies that the government is not able to cover its revenue expenditure by its revenue receipts. In other words, the consumption and administrative expenditure of the government is greater than its tax and non-tax receipts. Thus, to reduce the deficit, the government should either cut down its revenue expenditure or increase its revenue receipts.

However, in the developing and less developed countries, a high revenue deficit is difficult to cover. On one hand, the revenue receipts of the government in the form of tax receipts and non-tax receipts have little slope of increment (due to low average income level in the economy). On the hand, in such countries, high revenue expenditure is very crucial for the growth and development process.

Hence, to reduce the revenue deficit the government in a less developed country is compelled to resort to borrowings or disinvestment (selling of government shares in PSUs to the private sector). But these borrowings and disinvestment further have dampening effects on the economy. Some of the adverse effects of the revenue deficit on a less developed economy are as follows.

1. Acute inflation
2. Hindrance to social welfare and poor are worst hit due to the high revenue deficit.
3. The vitality of the financial system depreciates leading to weak economic structure
4. Due to the high revenue deficit the people lose faith on government
5. Similarly, the foreign investors and institutions also lose faith on the economy, which is reflected in reduced volume of foreign investments, break-down of share market and poor credit-worthiness of the economy as a whole.
6. The commercial banks raise the interest rates, which worsens the situation even more.
7. The high interest rates and lack of investment leads to sluggishness in the economic activities.

Thus, it can be concluded that high revenue deficit in the developing countries tends to destabilise the financial system of the country, which in turn, leads to weakening of the economic system.

b. Fiscal Deficit

Fiscal deficit refers to the difference between the total budget expenditure and total budget receipts of the government, other than the borrowings and liabilities. That is,

Fiscal Deficit = Budget Expenditure – Budget Receipts (other than borrowing and liabilities)

or, Fiscal Deficit = (Revenue expenditure + Capital Expenditure) – (Revenue receipts + Capital receipts other than borrowings) or, Fiscal Deficit = (Revenue expenditure + Capital Expenditure) – (Revenue receipts + Recovery of loans + Other receipts)

From the above analysis, it should be noted that ***fiscal deficit reflects the total borrowing and other liability requirements of the government***

Fiscal Deficit = Borrowings of the government + other liabilities of the government

Implications of Fiscal Deficit

Higher fiscal deficit implies higher borrowing requirements of the government. Higher borrowings can have serious implications for the government of a country. The main source of borrowings for a country is the central bank (RBI in case of India) from which the government borrows in the form of deficit financing (i.e. printing of new currency notes).

However, deficit financing increases the circulation of money in the economy and thereby, causes inflation. The government of a country can also borrow from the government of other countries or from international monetary institutions (such as the World Bank, IMF, etc.).

Such a borrowing, however, is associated with economic and political interference and increases the dependence of the borrowing country on the lending country. Besides, a higher borrowing mounts a burden on the future generations who become liable to repay the amount of borrowing and the interest thereon.

Thus, it acts as a obstacle in the future economic growth and development of the country. Another major problem associated with a high fiscal deficit is that the country gets trapped in a cycle of debt (debt-trap). Higher borrowings imply higher interest payments, thereby, further increasing the revenue expenditure. With the rise in revenue expenditure, the fiscal deficit further increases, which in turn, necessitates further borrowings. Thus, a vicious circle of debt follows.

c. Primary Deficit

Primary deficit refers to the difference between the fiscal deficit and the interest payments. Since, fiscal deficit reflects the borrowing requirements of the government, it can be said that the primary deficit refers to the difference between the government’s borrowing requirements and its interest liabilities.

Primary Deficit = Fiscal Deficit – Interest Payments

A zero primary deficit implies that the government incurs further borrowings to pay the interest payments on the past obligations (or borrowings).

Measures to Correct Budgetary Deficits

We know that budget deficit is the excess of total expenditure of the government over the total receipts of the government. Accordingly, the budget deficits can be corrected either by lowering the expenditure incurred by the government or by raising its receipts. The following are the two possible measures of correcting the budget deficit.

1. ***Reducing the government expenditure***- We know that government expenditure can be classified as development expenditure and non-development expenditure. In developing countries, the government cannot cut down on its development expenditure such as expenditure on health, education, etc.

This is because curtailing the development expenditure is not advisable from the economic point of view. However, by increasing the role of private sector in such activities the development expenditure can be lowered to some extent. On the other hand, non-development expenditure can be reduced to a greater extent by the government to correct the budget deficit.

2. ***Increasing the government receipts***- We know that the receipts of the government can be classified as revenue receipts and capital receipts. Of the various revenue receipts, tax receipts form the major component and contribute the most to the total government receipts.

Tax receipts of the government can be in the form of receipts from direct taxes and receipts from indirect taxes. However, in developing countries such as India, direct taxes such as income tax have little scope of increment. This is because only a small fraction of population pays income tax in such countries (and majority of population falls in low-income group). On the other hand, although the indirect taxes such as the sales tax have a wider scope but cannot be increased much as they are regressive in nature (the burden has to be borne equally by the rich and the poor). Thus, a rise in the indirect taxes implies a reduction in the welfare of the people. Hence, the indirect taxes and the direct taxes cannot be increased much in the developing countries.

Another form of receipts for the government can be capital receipts in the form of recovery of loans, borrowings and disinvestment. Of these three components, borrowings and disinvestment forms the two major sources of capital receipts. However, excessive dependence on the borrowings implies higher debt burden and interest burden in the future.

Hence, borrowing as a source of capital receipts must be avoided. As against borrowings, disinvestment can be used to correct budget deficit to some extent as long as it is confined to the disinvestment of inefficient public enterprises. Also, the disinvestment can prove fruitful, if the funds received from disinvestment are reinvested in some productive and developmental activities in the country.

Fiscal Policy

To correct the situation of budget deficit, the government undertakes various policy measures. The most important of all the policy measures to deal with the situation of imbalance in the budget is the fiscal policy measure. Fiscal policy refers to the policy undertaken by the government to influence the economy through the process of expenditure (government expenditure, subsidies and transfer payments) and revenue collection (taxation). In other words, fiscal policy refers to a policy whereby the government alters its expenditure and revenue receipts.

Let us understand the fiscal policy and its implications with the help of the following identities.

Let us consider a three sector economy, where government imposes lump-sum taxes equal to *T* and makes transfer payments equal to *TR*.

We know that the consumption function is of the following form.

$$C = \bar{C} + cY_d$$

As this is a three-sector model, so the disposable income is that part of income which is left after paying taxes and including transfer payments. Therefore, the disposable income takes the following form.

$$Y_d = (Y - T + TR)$$
$$\Rightarrow C = \bar{C} + c(Y - T + TR)$$

Now, *AD* = *Y* = *C* + *I* + *G*

$$Y = \bar{C} + c(Y - T + TR) + I + G$$

Solving for *Y*

$$Y = \bar{C} + cY - cT + cTR + I + G$$

$$Y(1 - c) = \bar{C} - cT + cTR + I + G$$

$$Y = \frac{1}{(1-c)}[\bar{C} - cT + cTR + I + G] \qquad \ldots(1)$$

This forms the national income identity equation takes into account the effect of government expenditure in the form of transfer payments and the effect of taxes.

Effect of Change in Government Expenditure on Income and Output

Let us suppose the government increases its expenditure while ***keeping the taxes constant***. With the increase in the government expenditure, the planned aggregate expenditure (*Y*) increases. Here the multiplier starts operating in the economy and an unit increase in the government expenditure causes a multiple increase in the income.

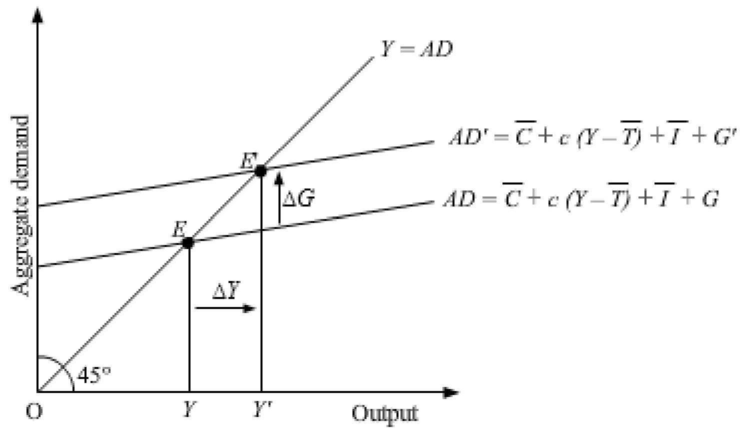
Assuming all the elements other than *G* and *Y* to be constant, the equation (1) becomes as:

$$Y = \frac{1}{(1-c)}[\overline{C} - \overline{cT} + \overline{cTR} + \overline{I} + G] \qquad ...(1)$$

$$Y = \frac{1}{(1-c)}[\overline{A} + G]$$

$$\Delta Y = \frac{1}{(1-c)} . \Delta G$$

$$\frac{\Delta Y}{\Delta G} = \text{Government expenditure multiplier } (G_M) = \frac{1}{(1-c)}$$



In the diagram, the point *E* is the initial equilibrium point, where the aggregate demand curve intersects the 45° income-line. With the increase in the government expenditure, the aggregate demand curve shifts parallely upwards by Δ*G*.

The new equilibrium is established at point *E´* and correspondingly the equilibrium income and output increases from *OY* to *OY´*.

The increase in the income and output (Δ*Y*) is greater than the increases in the government expenditure (Δ*G*).

A reduction in the government expenditure will have the reverse effect where the income and output decreases by a greater amount than the decrease in the government expenditure.

Effect of Change in Taxes on Income and Output

The taxes are of two types:

1. Lump-sum Taxes (independent of the income level) denoted by *T*

2. Proportionate Taxes (dependent of the income level) denoted by *t*

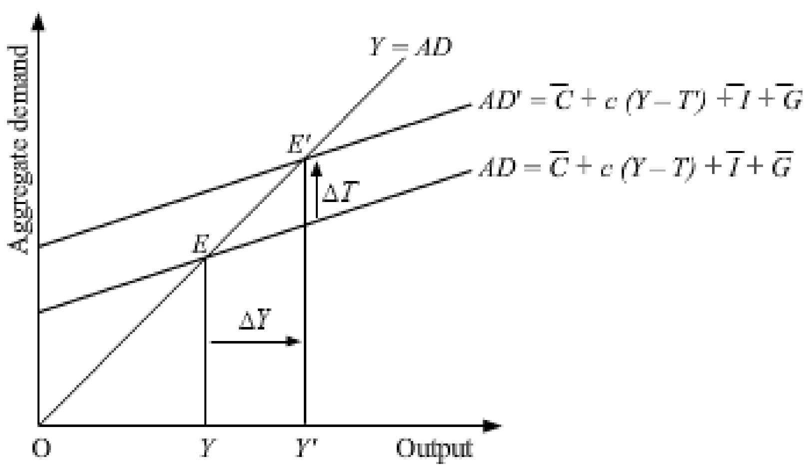
   Let us suppose the government reduces the lump-sum taxes while ***keeping its expenditure constant***. We know that a change in taxes affects the disposable income of the people. A fall in the lump-sum taxes would raise the disposable income, which in turn, raises the consumption expenditure.

   Thereby, increasing the aggregate demand, consequently, the aggregate demand curve shifts parallely upwards by ΔT to AD'.

   Due to the tax multiplier effect (or lump-sum tax multiplier), the fall in the tax will lead to increase in the income and the output by a greater proportion.

   According to equation (1)

$$\Delta Y = \frac{1}{(1-c)}\,(-c)\,\Delta T$$
$$\frac{\Delta Y}{\Delta T} = \frac{-c}{(1-c)} = \text{Lumpsum Tax multiplier } (T_{ML})$$



Effect of Change in Proportional Taxes

At times, it also happens that instead of charging lump-sum taxes the government charges proportional taxes (*t*). In other words, the government charges a proportion'*t*' of the income as taxes. Thus, taxes, *T* = *ty*

This implies that consumption function would become

$$\begin{aligned} C &= \bar{C} + cY_d \\ &= \bar{C} + c(Y - tY + TR) \end{aligned}$$

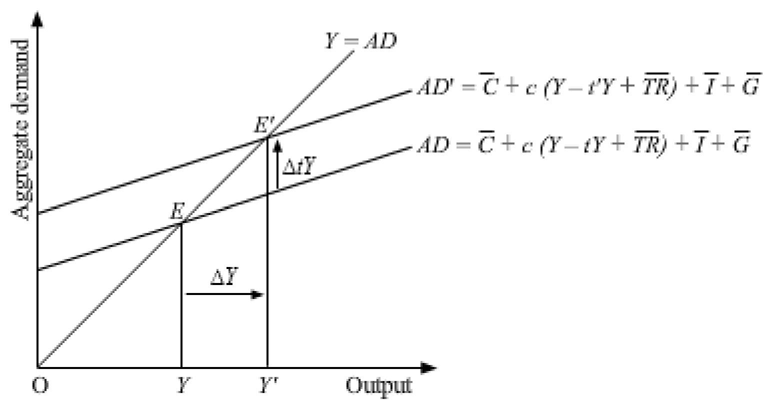
$$\Rightarrow AD = Y = \overline{C} + c(Y - tY + \overline{TR}) + \overline{I} + \overline{G}$$
$$= \overline{C} + cY - ctY + \overline{cTR} + \overline{I} + \overline{G}$$
$$= \overline{C} + c(1-t)Y + \overline{cTR} + \overline{I} + \overline{G}$$

Solving for *Y*

$$Y[1 - c(1-t)] = \overline{C} + \overline{cTR} + \overline{I} + \overline{G}$$
$$Y = \frac{1}{1-c(1-t)}[\overline{C} + \overline{cTR} + \overline{I} + \overline{G}]$$
$$Y = \frac{1}{1-c(1-t)}[\overline{A}]$$

where, $\overline{A}$ represents all the constant or autonomous variables. Differentiating it with respect to *t*:

$$\Delta Y = \frac{1}{1-c(1-t)}.\Delta t$$
$$\Rightarrow \frac{\Delta Y}{\Delta t} = \frac{1}{1-c(1-t)} = \text{Proportionate Tax Multiplier } (T_{MP})$$



Comparing the value of multiplier in case of lump-sum taxes and the value of multiplier in case of proportionate taxes, we find that value of multiplier is smaller in case of proportionate taxes.

A smaller multiplier value suggests that the aggregate income is comparatively less sensitive to the changes/fluctuations in the components of GDP. Thus, it can be said that the proportionate income taxes act as an automatic stabiliser.

In case of proportionate taxes, as income increases due to a change in any of the components of GDP (such as a rise in the government expenditure), the disposable income also rises but by less than the rise income. This is because a part of rise in disposable income is nullified by proportionate taxes.

Effect of Change in Transfer Payments

Suppose that the government raises the amount of transfer payments in form of increased subsidies, scholarships, pensions, etc. Such transfer payments will increase the amount of disposable income with the people. This will push up the consumption expenditure and aggregate demand.

Hence, the increase in the transfer payments results in the increase in the equilibrium output and income. But the rise in the income and the output is less than the rise in the transfer payments, due to the fact that a part of the transfer payments is saved and consumption out of the transfer payments according to the marginal propensity to consume.

$$\begin{aligned}\Rightarrow AD = Y &= \overline{C} + c(Y - \overline{tY} + TR) + \overline{I} + \overline{G} \\ &= \overline{C} + cY - \overline{ctY} + cTR + \overline{I} + \overline{G} \\ &= \overline{C} + c(1+TR)Y - \overline{ctY} + \overline{I} + \overline{G} \\ &= \overline{A} + c(1+TR)Y\end{aligned}$$

where, $\overline{A}$ represents all the constant or autonomous variables.

Solving for *Y*

$$Y = \overline{A} + c(1+TR)Y$$

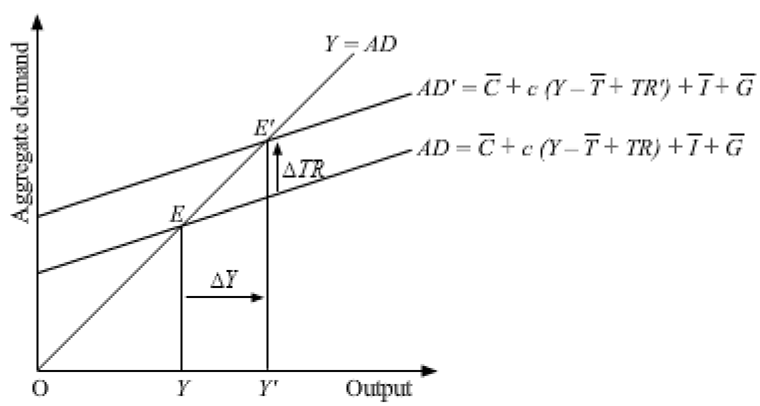
$$Y = \overline{A} + cY + cTRY$$

$$Y(1-c) = \overline{A} + cTRY$$

Differentiating with respect to TR

$$\Delta Y = \frac{c}{1-c}\Delta TR$$

$$\frac{\Delta Y}{\Delta TR} = \frac{c}{1-c} = \text{Transfer Payments Multiplier } (TR_M)$$



Balanced Budget Multiplier

A balanced budget refers to the budget where the total budget expenditure is equal to the total budget receipts.

Balanced budget multiplier is defined as the ratio of increase in income to increase in government expenditure financed by taxes. i.e.

$$BB_M = G_M + T_{MP}$$

$$BB_M = \frac{\Delta Y}{\Delta G} + \frac{\Delta Y}{\Delta T}$$

$$BB_M = \frac{1}{(1-c)} + \frac{-c}{(1-c)} = \frac{(1-c)}{(1-c)} = 1$$

Balanced budget multiplier equal to unity suggests that if whole of the increase in the government expenditure is financed through increase in taxes, then the change in the income would be just equal to the change in the government expenditure.

i.e. if $\Delta G = 100$ and $\Delta T = 100$ then $\Delta Y = \Delta G = 100$

Fiscal Responsibility and Budget Management Act, 2003 (FRBMA)

After the *BOP* crisis in 1991, the Indian economy underwent many changes. The fiscal situation of the economy was deteriorating each succeeding financial year. The Indian economy was under a huge debt burden and mounting interest payments.

The total liabilities of the government were as high as 6 times the annual revenue, while, the interest payments amounted to 50% of the total government revenue. Thus, in 2003, FRBMA was enacted with the aim of bringing about a greater fiscal discipline in the economy.

The Act provides rules for fiscal responsibility of the central government and provides numerical targets for various fiscal indicators (such as fiscal deficit, revenue deficit, borrowings, etc).

The FRBMA was introduced with the following major objectives.

1. Reducing fiscal deficit

2. Adopting a careful and sensible system of debt management.

3. Generating revenue surplus

4. Fiscal stability

To achieve the above objectives FRBMA was introduced with following main features

1. The Act makes it mandatory for the government to reduce the revenue deficit by 0.5% each year and eliminate the deficit within 3 years.

2. Fiscal deficit must be reduced to a manageable 3% within 3 years.

3. It also mentioned that if the necessary reductions in the revenue deficit cannot be achieved by increasing tax revenue it must be achieved by reducing the government expenditure.

4. The Act, however; provided relaxation in the targets on grounds of national security or a natural calamity or other such exceptional grounds as specified by the central government.

5. The central government shall not normally borrow from RBI, except in situations of temporary cash requirements when the cash disbursements exceed cash receipts.

6. The Act mandated that total liabilities of the government shall not exceed 9% of the GDP.

7. Measures must be taken to ensure greater fiscal transparency. For this the government shall present annual fiscal policy statements and annual financial statement in both the houses of the parliament. It shall also provide a statement of the fiscal policy strategies.

8. RBI shall not trade in the primary market for the government securities.

9. Quarterly reports of the budgetary receipts and budgetary expenditure is to be placed before both the houses of parliament.