

## **UNIT – VI**

### **MACRO ECONOMICS**

#### **INTRODUCTION:**

Macroeconomics is the study of the entire economy in terms of the total amount of goods and services produced, total income earned, the level of employment of productive resources, and the general behavior of prices. Macroeconomics can be used to analyze how best to influence policy goals such as economic growth, price stability, full employment and the attainment of a sustainable balance of payments.

Until the 1930s most economic analysis concentrated on individual firms and industries. With the Great Depression of the 1930s (see note on Great Depression at the end of this chapter), however, and the development of the concept of national income and product statistics, the field of macro economics began to expand. Particularly influential were the ideas of John Maynard Keynes, who used the concept of aggregate demand to explain fluctuations in output and unemployment.

#### **MEANING OF MACROECONOMICS:**

Modern macroeconomics mainly owes to J.M. Keynes. His book, “The General Theory of Employment, Interest and Money” published in 1936 has analytically studied what causes large and prolonged fluctuations in the level of employment.

Macroeconomics deals with the aggregates of the system. The word macro means large. Macroeconomics, thus, deals with the behaviour of various economic variables that refer to the economy as a whole. These variables are—total national income, aggregate employment, the extent to which the economy’s resources are being fully employed, aggregate saving and investment, and the general price level in the economy. Thus, under macro economics we study economy as a whole. According to Kenneth. E. Boulding, “Macroeconomics deals not with individual quantities as such, but with aggregates of these quantities, not with individual income, but with national income, not with individual prices but with price levels, not with individual outputs but with national output.”

#### **DISTINCTION BETWEEN MICROECONOMICS AND MACROECONOMICS:**

Micro and macroeconomics are the two broad branches of economic theory. These two terms are coined by Prof. Ragnar Frisch of Oslo University. As we already know that microeconomics deals with a small part of the economy. It studies the economic behaviour of individual unit-an individual, a firm or an industry. Microeconomics studies product and factor pricing and also theory of economic welfare. It is sometimes referred to as price theory, because it mainly revolves around the prices of different variable.

Macroeconomics, on the other hand, deals with the aggregates of the whole economy. In other words, it is a study of all units combined together. It is a study of economic system as a whole. It deals with aggregates such as total income and employment, general price level, total production, consumption and investment etc. Macroeconomics, therefore, studies theories related to income, output, employment, and growth.

#### **CIRCULAR FLOW OF INCOME:**

As stated above, national income is the aggregate factor income (earnings of labour and property) which arises from the current production of goods and services by the factors of production. Let us take an

economy with two sectors only—households and firms. Households are basically consumer units and they own factors of production. Firms produce goods while households provide services of the factors of production to these firms. Factors of production receive incomes for rendering their services. The sales value of net production must equal the sum total of payments made by the firms to the factors of production in the form of wages, rents, interest and profits. These incomes are spent on various goods and services by households. Thus income flows from firms to households in exchange of productive services while products flow in return when expenditure by households takes place. In short, circular flow of income is defined as the flow of payments and receipts for goods and services and factor services between different sectors of the economy. There are two types of flows—money flows and real flows. Money flow is the flow of income/payments in terms of money. Real flow refers to the flow of goods and services. National income is both a flow of goods and services and flow of money income. The following are the assumptions that are considered for explaining circular flow of income in two-sector model simple economy.

1. The economy is closed economy. That is, there is no foreign sector;
2. Households do not produce but provide factors of production;
3. Firms or business sector is the only producing sector;
4. Whatever is produced by firms is sold and there is no accumulation of inventories;
5. Consumers or household sector do not save their income but spend all their income;
6. There is absence of taxes, government expenditure on goods and services etc.

It is thus clear that, production in a two sector model equals sales and income equals expenditure. In real working of circular flow of income, however, there are injections and leakages in the economy. Injections are factors which increase spending flow and leakages are those factors which reduces spending. For instance, households usually save a part of their income. This savings cause leakages from the income stream or flow in the economy. Similarly, when we pay taxes to the government, our income gets reduced by the amount of tax paid. This is also an important form of leakage. On the other hand, if government spends on goods and services, it increases income which acts as a stimulant to production. This is an injection in the economy.

## **NATIONAL INCOME:**

The concept of national income (or national dividend which is the old alternative term for national income) occupies an important place in economic theory. National income is the flow of goods and services which become available to a nation during the year. To be more precise, national income is the aggregate money value of all goods and services produced in the country during one year, account being taken of the deductions made due to wear and tear depreciation of plants and machinery used in the production of goods and services. It is distributed among the factors of production in the form of rent, interest, wages and profits. The larger the income, other things remaining the same the larger will be the share.

## **BASIC CONCEPTS IN NATIONAL INCOME:**

**1. Gross Domestic Product (GDP):** Gross domestic product is the money value of all final goods and services produced in the domestic territory of a country during an accounting year. Domestic territory is defined to include:

- (i) Territory lying within the political frontiers, including territorial water of the country,
- (ii) Ships and aircrafts operated by the residents of the country between two or more countries,

- (iii) Fishing vessels, oil and natural gas rigs, and floating platform operated by the residents of the country in the international waters,
- (iv) Embassies consulates and military establishments of the country located abroad.

**2. GDP at Constant Prices and Current Prices:** If the domestic product is estimated on the basis of the prevailing prices, it is called GDP at current prices. On the other hand, if GDP is measured on the basis of fixed prices, that are prices prevailing at a point of time or in some base year, it is known as GDP at constant prices or real gross domestic product.

**3. GDP at Factor Cost and GDP at Market Price:** GDP at factor cost is estimated as the sum of net value added by different producing units and the consumption of fixed capital. Since the net value added gets distributed as income to the owners of factors of production, we can also estimate GDP as the sum of domestic factor incomes and consumption of fixed capital. The market value of goods and services is not the same as the earnings of the factors of production. GDP at market prices include indirect taxes and exclude the subsidies given by the government. Therefore, in order to arrive at GDP at factor cost we must subtract indirect taxes from and add subsidies to GDP at market price. Thus,

$$GDP_{FC} = GDP_{MP} - IT + S.$$

where IT = indirect taxes and S = subsidies.

**4. Net Domestic Product:** When depreciation allowance (also called capital consumption allowance) is subtracted from GDP, we get net domestic product. Thus,  $NDP = GDP - \text{depreciation}$ .

**5. Gross National Product (GNP):** Gross national product is defined as the sum of the gross domestic product and net factor incomes from abroad i.e., incomes earned by country's normal residents abroad minus incomes earned by foreign residents from the country. Thus,  $GNP = GDP + NFIA$  (net factor income from abroad).

Two things must be noted in regard to GNP. First, it measures the market value of annual output. It is a monetary measure. Secondly, it includes the market value of final goods and ignores transaction involving intermediate goods. Final goods are those goods which are being purchased for final use and not for resale or further processing.

#### **Normal Residents of a country:**

A normal resident of a country is a person or institution that normally resides/located in a country and their economic interest lies in that country. It includes the following:

- (i) Production units operating in the country;
- (ii) Nationals and the foreign nationals who stay for more than a year in a country;
- (iii) Nationals who have gone abroad but returned within a year;
- (iv) Nationals working in the foreign embassies and international institutions located in a country;
- (v) Students and patients of a country who have gone aboard and stay there even for more than a year.

However, the following persons/institutions are not included in the normal resident of a country:

- (i) Foreign nationals who visit a country for purpose of conferences, tour etc and period of their stay in the country is of less than a year.
- (ii) Crew members of foreign vessels, businessmen and workers whose stay is less than a year;
- (iii) International organizations such as IMF, WTO, WHO, ILO, FAO etc located in a country;
- (iv) Foreign national employees of international organizations, if they stay for less than a year;

(v) Foreigners who are employees of non-resident enterprises and who have come to the country for installing machinery etc and their stay are of less than a year.

**6. Net National Product (NNP):** Net national product is the net production of goods and services in a country during the year. It is national income minus the value of capital depreciated during the year ( $NNP = GNP - \text{Depreciation}$ ). NNP then is simply GNP adjusted for depreciation charges. NNP is also sometimes referred to as Nation Income at Market Prices. NNP is a better concept than GNI because it makes proper allowance for the depreciation suffered by machinery) equipment, buildings, etc., during the year. This concept is also highly useful as it gives an idea of net increase in the total production of the country. It also proves helpful in the analysis of the long-run problem of maintaining and increasing the supply of physical capital in the country. NNP is therefore, a highly useful concept for the study of 'Growth Economics'. But the concept of NNP has also one serious drawback. It involves difficult and complex problems of fixing appropriate rates of depreciation for plants equipment buildings, etc.

The concept of N.I. is an important concept in Economics. It throws light on the distribution side of the national output. It tells us how the national output is distributed among the various factors of production in lieu of the services rendered by them. As such, it is closely related with the concept of economic justice.

## REAL INCOME AND NOMINAL INCOME

As already pointed out, the national income of a country is expressed in terms of money. But the value of money often changes over a period of time. This, then, creates difficulties in comparing the national income of the country for different years. To get over these difficulties, the economists have evolved the concept of real income. When we express the national income of a country during a particular year in terms of current prices, it is known as the nominal income or income at current prices. The nominal income of a particular year when compared with the nominal income of the base year will include the effect of two changes (i) the change in the production of goods and services, and (ii) the change in the price level (or, value of money). Comparing the nominal income of a particular year with the nominal income of the base year will not be meaningful, because the price level or the value of money may have changed in the meanwhile. So if the nominal income of a given year is to be compared with the nominal income of the base year, the comparison would be fruitful only if the nominal income of the given year is first converted into real income. To convert the nominal income of the given year into real income, the statisticians have evolved an adjustment process known as deflating. How is this deflating done in actual practice? Suppose 1990 is the base year and we have to compare the national income of 1998 with the national income of 1990 in order to study the changes that have taken place during this period of eight years. If we compare the nominal income (national income expressed in current prices) of 1998 with the nominal income of 1990, we shall not get a correct picture of the changes that have taken place, because the price level (or, the value of money) may have changed during this period. To make the comparison purposeful, we shall deflate the nominal income of 1998, or shall convert the nominal income of 1998 into real income. In other words, we shall take the real output of goods and services in 1998, and evaluate it at the price level of the base year (i.e. 1990) and not at the current or 1998 price level. Having done this, we shall then compare the national income of 1998 with the national income of 1990, and find out the changes that have taken place during this period.

When the national income is expressed in terms of current prices, it is called nominal income. But when it is expressed in terms of prices (or, the prices prevailing in the base year), it is called real income.

The concept of per capita real income is often used in economic writings and discussions as index of changes in the standard of living in a country. The object of this concept is to measure changes in economic progress in terms of goods and services available per head of population. The Per capita real income can be found out with the help of the following formula:

$$\text{Per Capita Real Income} = \frac{\text{Real National Income}}{\text{Size of the Population}}$$