Managerial Economics
RAS-501

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Unit-V

Nature and characteristics of Indian economy, concepts of LPG, elementary concepts of National Income, Inflation and Business Cycles ,Concept of N.I. and Measurement., Meaning of Inflation, Types and causes , Phases of business cycle .Investment decisions for boosting economy(National income and per capital income)

UNIT-05

Introduction

Macroeconomics is concerned with the determination of the economy's total output, the price level, the level of employment, interest rates and other variables. A necessary step in understanding how these variables are determined is "national income accounting".

The national income accounts give us regular estimates of GNP – the basic measure of the economy's performance in producing goods and services.

National income is the most comprehensive measure of the level of the aggregate economic activity in an economy. It is the total income of a nation as against the income of an individual but the term national income is not as simple and self-explanatory as the concept of individual income maybe. For example, not all the income received by individuals during a given period can be included in the national income, similarly not all the income that is generated in the process of production in an economy during a given period is received by the individuals in the economy.

To begin with, we may define national income as the aggregate of money value of the annual flow of final goods and services in the national economy during a given period.

The well-known writer, Paul Studenski, writes: "National income is both a flow of goods and services and a flow of money incomes. It is therefore called national product as often as national income".

National Income

National product by definition is a measure in monetary terms of the volume of all goods and services produced by an economy during a given period of time accounted for without duplication. The measure obviously has to be in value terms as the different units of production and different measures of services are not directly additive. An important characteristic of this measure is its comprehensiveness. The measure covers all the final goods and services produced by the residents of a country. Thus, the goods cover all possible items produced, as for example, agricultural crops, livestock products, forest products, mineral products, manufacturing of various consumer items for consumption, machinery, transport equipment, defense equipment, etc., construction of buildings, roads, dams, bridges, etc. The services similarly cover a wide spectrum including medical and educational services, defense services, financial services, transport and trading services, sanitary services, government services, etc.

All the final goods and services produced during the period have to be included whether they are marketed, that is exchanged for money or bartered or produced for own use. For example some of the products of agriculture and forestry and fishing are used for own consumption of producers and therefore imputed values of these products are also to be included. Similarly, account must also be taken of the rental of buildings, which are owned and occupied by the owners themselves. Own account construction activities are also similarly to be included. However, certain other activities like services of housewives are excluded from production mainly due to the problems of measurement. Also excluded are illegal activities such as smuggling, black marketing, etc.

Another important feature of the measure is that it is an unduplicated value of output or in other words only the value added at each stage of processing is taken into account while measuring the total, i.e., in the measurement of national output. A distinction is made between final and intermediate products and unduplicated total is one that is confined to the value of the final

products and excludes all intermediate products. For example, if the production process during the year involves the production of wheat, its milling into flour and the baking of bread which is sold to consumers, then the value of the national output should equal the final value of the bread and should not count the separate value of the wheat and flour which have been used in the course of producing bread. Thus the national product is not the total value of goods and services produced, but only final products excluding the value of inputs of raw materials and services used in the process of production. Thus value added by the activities in an enterprise during an accounting period is an important national income concept.

According to the National Income Committee (1949), “A national income estimate measures the volume of commodities and services turned out during a given period counted without duplication.”

Thus, national income measures the net value of goods and services produced in a country during a year and it also includes net earned foreign income. In other words, a total of national income measures the flow of goods and services in an economy. National income is a flow not a stock. As contrasted with national wealth which measures the stock of commodities held by the nationals of a country at a point of time, national income measures the productive power of an economy in a given period to turn out goods and services for final consumption.

In India, National income estimates are related with the financial year (April 1 to March 31).

Concepts of National Income

For the purpose of measurement and analysis, national income can be viewed as an aggregate of various component flows. To begin with let us consider the most comprehensive and broad-based measure of aggregate income widely known as Gross National Product at market prices or GNP at market prices.

Two important words are "gross" and "national". Similarly the phrase "at market prices" is also significant because it specifies the criterion of valuation. The main alternatives to these three specifications are 'net', 'domestic' and at 'falter cost'.

Gross and Net Concept

Gross emphasizes that no allowance for capital consumption has been made or that depreciation has yet to be deducted.
Net indicates that provision for capital consumption has already been made or that depreciation has already been deducted.
Thus the difference between the gross aggregate and the net aggregate is depreciation.
i.e.,
GNP at market price/factor cost = NNP at market price/factor cost + depreciation.

National and Domestic Concepts

The term national denotes that the aggregate under consideration represents the total income which accrues to the normal residents of a country due to their participation in world production during the current year. Thus, the term 'national' is used to emphasize that the aggregate under consideration covers all types of factor incomes accruing to normal residents of a country irrespective of whether the factors of production supplied by them are located at home or abroad.

As against this, it is also possible to measure the value of the total output or income originating within the specified geographical boundary of a country known as "domestic territory". The resulting measure is called "domestic product".

In other words, the distinction between "national" and "domestic" aggregates lies in the frame of reference - the former takes the normal residents of a country, the latter takes a given "geographical area". Here, national product differs from domestic product by the amount of net factor income from abroad.

GNP at market price/factor cost = GDP at market price/factor cost + Net factor income from abroad

NNP at market price/factor cost = NDP at market price/factor cost + Net factor income from abroad

Net factor income from abroad = Factor income received from abroad - Factor income paid abroad.

Market Prices and Factor Costs

The valuation of the national product at market prices indicates the total amount actually paid by the final buyers while the valuation of national product at factor cost is a measure of the total amount earned by the factors of production for their contribution to the final output.
GNP at market price = GNP at factor cost + indirect taxes-Subsidies.

NNP at market price = NNP at factor cost + indirect taxes-Subsidies.

And vice versa.

	Category A	**Category B**
Type 1	GNP at market price	GDP at market price
	NNP at market price	NDP at market price
Type 2	GNP at factor cost	GDP at factor cost
	NNP at factor cost	NDP at factor cost

- Difference between the aggregates in category A and aggregates in category B is net factor income from abroad.
- Difference between the aggregates of type 1 and aggregates of type 2 is indirect taxes less subsidies.
- The difference between the two aggregates of each type in each category is depreciation.

Gross National Product and Gross Domestic Product

For some purposes we need to find the total income generated from production within the territorial boundaries of an economy, irrespective of whether it belongs to the inhabitants of that nation or not. Such an income is known as Gross Domestic Product (GDP) and found as:

GDP = GNP - Net factor income from abroad

Net factor income from abroad = Factor income received from abroad - Factor income paid abroad.

GNP as a Sum of Expenditures on Final Products

Expenditure on final products in an economy can be classified into the following categories:

- Personal consumption expenditure (c):- The sum of expenditure on both the durable and non-durable goods as well as services for consumption purposes
- Gross Private Investment (Ig) is the total expenditure incurred for the replacement of capital goods and for additional investment
- Government expenditure (G) is the sum of expenditure on consumption and capital goods by the government, and
- Net Exports (Exports – Imports) (X – M) constitute the difference between the expenditure or rest of the world on output of the national economy and the expenditure of the national economy on output of the rest of the world.

GNP is the aggregate of the above mentioned four categories of consumption expenditure.
That is,

GNP = C + Ig + G + (X – M)

GNP as the Total of Factor Incomes

As mentioned above, national product gives a measure of a nation's productive activity, irrespective of the fact whether this activity takes place at home or abroad. When national income is calculated after excluding indirect taxes like excise duty, sales tax, etc. and including subsidies we get GNP at factor cost as this is the amount received by all the factors of production (indirect taxes being the amount claimed by the government and subsidies becoming a part of factor income).
GNP at factor cost = GNP at market prices – Indirect taxes + Subsidies

Net National Product

The NNP is an alternative and closely related measure of the national income. It differs from GNP in only one respect. GNP is the sum of final products. It includes consumption goods plus gross investment plus government expenditures on goods and services plus net exports. Here gross investment (Ig) is the increase in investment plus fixed assets like buildings and equipment and thus exceed net investment (In) by depreciation.

GNP = NNP + Depreciation

NNP includes net private investment while GNP includes gross private domestic investment.

NNP at Factor Cost (or National Income)

Goods and services are produced with the help of factors of production. National income or NNP at factor cost is the sum of all the income payments received by these factors of production.

NI = GNP – Depreciation – Indirect taxes + Subsidies

Since factors receive subsidies, they are added while indirect taxes are subtracted as these do not form part of the factor income.

NNP at factor cost = NNP at market prices – Indirect taxes + Subsidies

Personal Income

National income is the total income accruing to the factors of production for their contribution to current production. It does not represent the total income that individuals actually receive. Personal income is calculated by subtracting from national income those types of incomes which are earned but not received and adding those types which are received but not currently earned.

Personal Income = NNP at factor cost - Undistributed profits - Corporate taxes + Transfer Payments

Disposable Income

Disposable income is the total income that actually remains with individuals to dispose off as they wish. It differs from personal income by the amount of direct taxes paid by individuals.

Disposable Income = Personal Income - Personal taxes

Methods of National Income

It is evident that the measurement of national income involves the measurement of the size of the circular flow. Basically there are three ways of looking at the circular flow of income. It arises out of the process of activity chain in which production creates income, income generates spending and spending in turn induces production. Accordingly there are three different ways in which we can measure the size of the circular flow. We can measure it either at the production stage by measuring the value of output or at the income accrual stage by measuring the amount of factor income earned or at the expenditure stage by measuring the size of total expenditure incurred in the economy.

- Product Method
- Income Method
- Expenditure Method

Product Method

According to this method, the sum of net value of goods and services produced at market prices is found. Three steps are involved in calculation of national income through this method:

- Gross product is calculated by sensing up the money value of output in the different sectors of the economy.
- Money value of raw material and services used and the amount of depreciation of physical assets involved in the production process are summed up.
- The net output or value added is found by subtracting the aggregate of the cost of raw material, services and depreciation from the gross product found in first step.

This approach is used to estimate gross and net value added in the following sectors of the Indian economy:

- Agriculture and allied activities (e.g., animal husbandry)
- Forestry and Logging
- Fishing
- Mining and Quarrying
- Registered Manufacturing

Income Method

This approach is also known as the income-distributed method. According to this method, the incomes received by all the basic factors of production used in the production process are summed up. The basic factors for the purposes of national income are categorized as labour and capital. We have three incomes.

- Labour income which includes wages, salaries, bonus, social security and welfare contributions.
- Capital income which includes dividends, pre-tax retained earnings, interest on saving and bonus, rent, royalties and profits of government enterprises.
- Mixed income, i.e., earnings from professions, farming enterprises, etc.

These three components of income are added together to get national income.
The approach is used for following activities:

- Railways
- Electricity, gas and water supply
- Transport, storage and communication
- Banking, finance and insurance
- Real estate
- Public administration and defence.

For the first three groups almost complete data are available from annual accounts. Such data are also available for parts of latter three – the part that is in the organized sector. For the rest the indirect approach has to be employed.

Database is the weakest for unorganized sectors of the economy such as unregistered manufacturing, trade, hotels and restaurants and a variety of personal services. For these sectors rough and ready estimates based sometimes on production approach, sometimes on income approach are used. Most often estimates are obtained for a benchmark year during which a major survey had been conducted and then these benchmark estimates are brought up to date using a variety of indicators.

Constant price estimates using the income approach are obtained by updating the base year estimates using some physical indices such as amount of electricity sold, tone kilometers of freight transport, etc.

Expenditure Method

This method is known as the final product method. According to this method, the total national expenditure is the sum of the expenditure incurred by the society in a particular year. The expenditures are classified as personal consumption expenditure, net domestic investment, government expenditure on goods and services and net foreign investment (imports - exports).

These three approaches to the measurement of national income yield identical results. They provide three alternative methods of measuring essentially the same magnitude. If we follow the product approach or the expenditure approach, we are in effect trying to measure national income by the size of the income flow in the upper half of the circle. As against this if we follow income approach, we are actually trying to measure the flow in the lower half of the circle.

Gross Domestic Product

Gross domestic product (GDP) is the money value of all final goods and services produced by all normal residents as well as non residents working in the domestic territory of a country but do not include net factor income earned from abroad. Thus, difference between gross domestic product (GDP) and gross national product (GNP) at market price arise due to the existence of 'net factor income from abroad'. Gross domestic product does not include net factor income from abroad, whereas gross national product includes it.

Gross domestic product (GDP) measures total output in the domestic economy. Nominal GDP, real GDP, and potential GDP are three different measures of aggregate output.

Nominal GDP is the market value of all final goods and services produced in the domestic economy in a one-year period *at current prices*. By this definition, (1) only output exchanged in a market is included (do-it-yourself services such as cleaning your own house are not included); (2) output is valued in its final form (output is in its final form when no further alteration is made to the good which would change its market value); and (3) output is measured using current-year prices.

Because nominal GDP values are inflated by prices that increase over time, aggregate output is also measured holding the prices of all goods and services constant over time. This valuation of GDP *at constant prices* is called *real GDP*.

The third measure of aggregate output is *potential GDP*, the maximum production that can take place in the domestic economy without putting upward pressure on the general level of prices. Conceptually, potential GDP represents a point on a given production-possibility frontier.

Inflation-Meaning and Basic concepts

Meaning of Inflation

Inflation is defined as a sustained increase in the price level or a sustained fall in the value of money. Inflation in India is explained by various factors, viz., excessive aggregate demand, imbalance between the sectoral demand and supply, cost factors including rising import prices and rate of expansion of money. To understand the type of inflation, we analyze the price trends, the rate of expansion of money supply and the rate of increase in demand. To quantify the amount of inflation in the economy, indicators such as the Wholesale Price Index, the Consumer Price Index and the GDP Deflator are used. The Wholesale Price Index is defined as the measure of the cost of a given basket of goods. It includes raw materials and semi-finished goods. It is designed to measure prices at an early stage of the distribution system. The Consumer Price Index measures the cost of buying a fixed basket of goods and services. It is representative of the purchases of urban consumers. The GDP deflator is a ratio of nominal GDP in a given year to the real GDP in that year. Thus, it measures the changes in prices that have occurred between the base year and the current year. But it is paradoxical that often when these indicators show a small growth in the rate of inflation, for the layman prices keep increasing and show little inclination of ever coming down. This is primarily because the CPI is not realistically based. The computation does not include costs like housing, electricity charges, communication costs and educational expenses. Thus, the indicators of inflation will be influenced primarily by changes in money supply, financing of the money supply by the government and the influence of money

wages. Inflation affects the private corporate sector through its impact on the interest rate, credit off take and globalization of savings.

“Inflation is a state in which the value of money is falling or prices are rising” – Crowther.

“Inflation is a self perpetuating and irreversible upward movement of prices caused by excess of demand over capacity to supply.” – Emile James.

Characteristics of Inflation

Some of the important features of inflation are as follows:

- Inflation is related with a sustained rises in prices. It’s different from temporary rising the prices.
- Prices rise is persistent and, irreversible immediately.
- Inflation is an economic phenomenon.
- Inflation is also a monetary phenomenon.
- The real value of money shows a falling trend.

Types of Inflation

In a free market economy, prices go up freely due to supply-demand imbalances leading to open inflation. Suppressed inflation occurs in a controlled economy where the upward pressure on prices is not allowed to influence the quoted or managed prices. But inflation reveals itself in other forms. For example, government may introduce rationing of goods leading to long queues in front of ration shops. There is very likely to be a black market for such goods whose prices are far above the quoted prices. In India, suppressed inflation manifests itself in the prices of essential goods sold through PDS. The ration prices are deliberately maintained at a certain level while the open market prices are above this level.

Creeping Inflation, Galloping Inflation and Hyper Inflation

These three categories of inflation are recognized on the basis of severity of inflation, as measured in terms of rate of rise in prices.

There is moderate rise in prices of 2-3 per cent per annum in creeping inflation. It is generally considered good for a growing economy. Mildly rising prices result in faster growth of output in that they raise the profit margins of firms and encourage them to produce more. Creeping inflation does not severely distort relative prices nor does it destabilize price expectations. A single digit inflation is also considered as moderate inflation which most countries have come to put up with.

In galloping inflation prices rise at double or treble digit rates per annum (20-100%). It tends to distort relative prices and results in disquieting changes in distribution of purchasing power of different groups of income earners. There is often a flight of capital from the country since people tend to send their investment funds abroad and domestic investment withers away.

Hyper inflation or run-away inflation is of a severe type in which prices rise a thousand or a million or even a billion per cent per year. It seriously cripples the economy. Prices and money supply rise alarmingly. Germany experienced hyper inflation during 1920-23. It is generally a result of war, political revolution or some other catastrophic event.

Demand Pull Inflation

Such an inflation occurs when aggregate demand rises more rapidly than the economy's productive potential, pulling prices up to equilibrate aggregate supply and demand. It is characterized by a situation in which there is "too much money chasing too few goods".
Keynes maintains that demand pull inflation could be caused by excessive fiscal deficit leading to increase in government expenditure. An increase in government expenditure, especially during a war, raises the demand for output well above the supply and ignites a rapid inflation.

This type of inflation was first explained by Keynes. He introduced the concept of 'inflationary gap' to substantiate his approach to demand pull inflation. He defines inflationary gap as an excess of planned (or anticipated) expenditure over the available output at pre-inflation or base prices. Lipsey adds that this gap is the amount by which aggregate expenditure would exceed aggregate output at the full employment level of income.

In the absence of government expenditure, the economy will be in equilibrium at income level Y**o**, at which aggregate income equals aggregate demand E**o** (Figure-01).

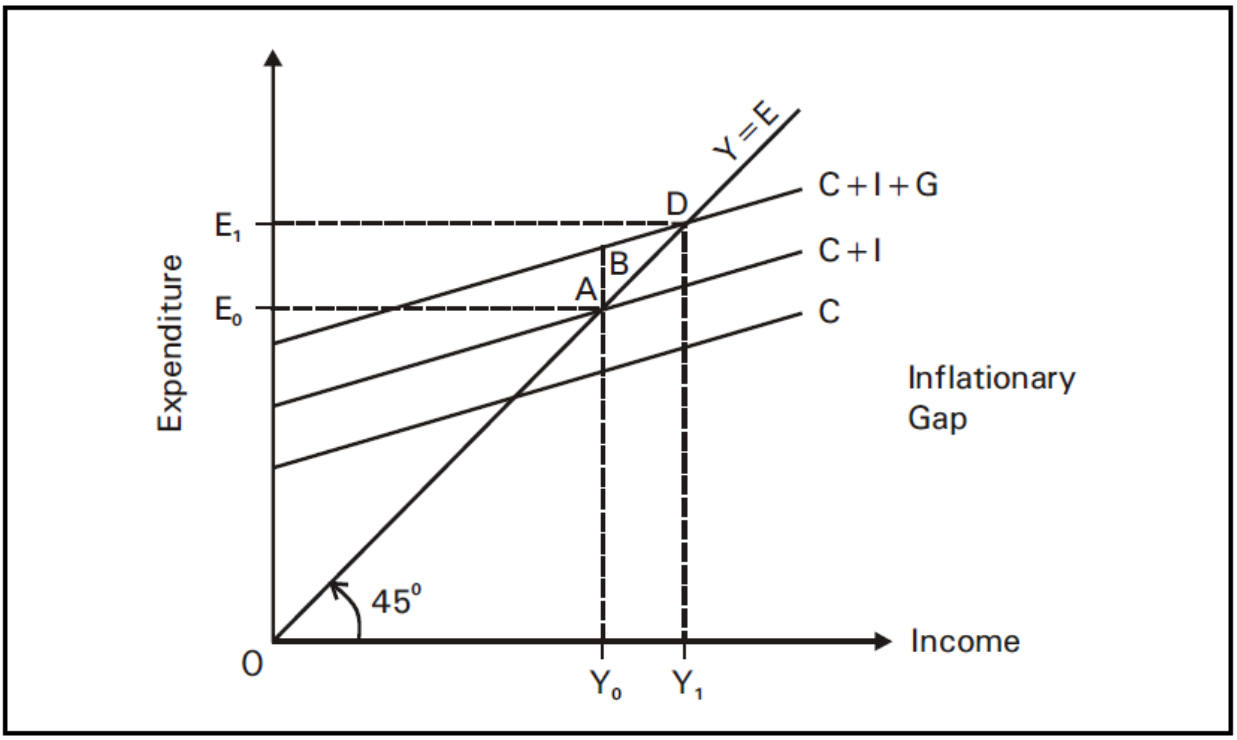


Figure-01

Aggregate expenditure is the sum of consumption expenditure of households and investment expenditure of the firms. Thus, at point A, the equilibrium point Y = C + I.

If government decides to incur an expenditure, G, the aggregate expenditure curve (C+1+G) shifts upwards and new equilibrium is D where the level of income is Y, and expenditure E.

However, suppose Y0 is full employment equilibrium and the real output cannot increase. Thus there is an excess demand equal to AB which will be purely inflationary and this represents the inflationary gap (Keynesians recommend that in such situations the government should follow deflationary policy to bring down aggregate demand to the equilibrium level).

According to Keynes, at full employment, the excess demand for goods and services cannot be met in real terms and, therefore, it is met by rise in the price of goods. Demand pull inflation occurs only when there is an inflationary gap in the economy. The aggregate demand line AD intersects the 450 line at point E, which is to the right of the full employment line. Thus, at full employment there is excess demand which pulls up prices (Figure-02).
Samuelson says that demand pull inflation simply means that increasing quantities of money are competing for the limited supply of commodities and bid up their prices.

As the rate of employment falls and labour markets become light (i.e., markets become scarce) wages are bid up and the inflationary process accelerates.

Factors on Demand Side

On the demand side, the major inflationary factors are:

- money supply;
- disposable income and consumer expenditures;
- business outlays; and
- foreign demand.

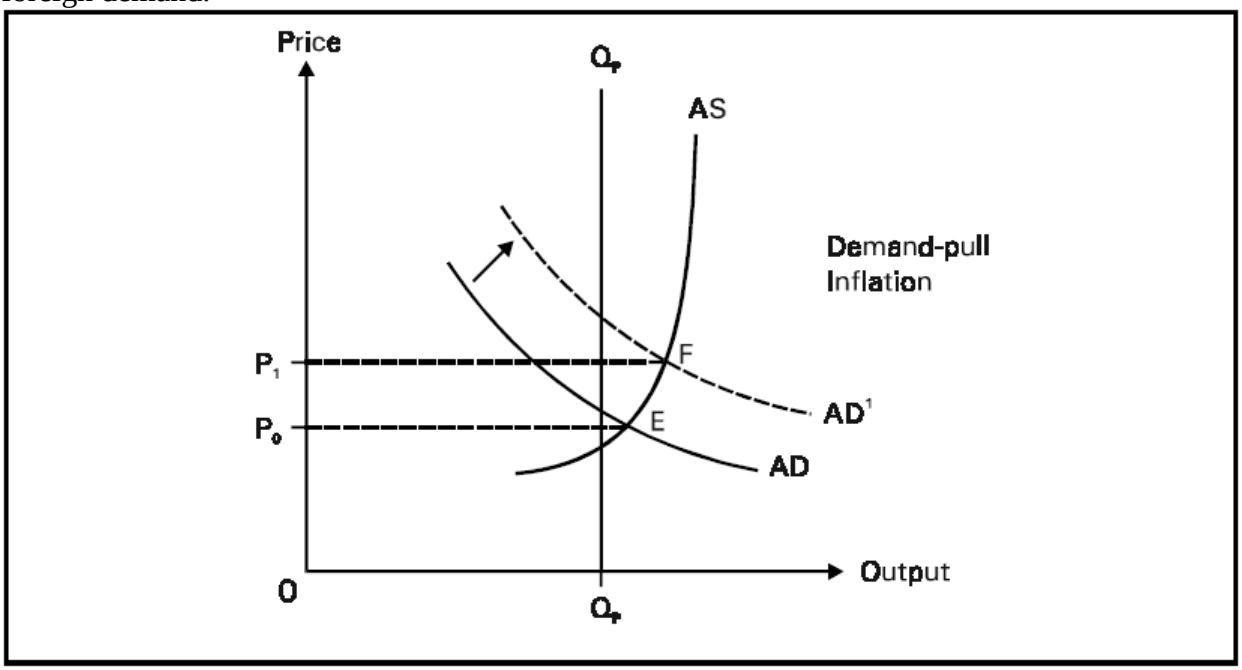


Figure-02

Cost Push Inflation

Modern information is far more complex than what can be explained by the simple demand pull theory. Prices and wages start rising before the economy reaches full employment. They rise even under conditions of a large idle capacity and a sizeable portion of the labour force being unemployed. This is known as "cost push" or "supplyshock" inflation.

The supply or cost analysis of inflation, also known as the "new-inflation theory", maintains that inflation occurs due to an increase in the cost or supply price of goods caused by increases in the prices of inputs. Rapidly rising money wages with no corresponding rise in labour productivity in certain key sectors of the economy result in higher prices in these same sectors, particularly as demand rises. This leads to further erosion of real wages forcing organized labour, including trade unions not involved in the initial round of wage increases, to seek a further rise in money wages. This is what is commonly referred to as wage price spiral.

The notion of cost push inflation is not new. As Bronfen-Bparting Benner and Holzman have observed, "cost inflation" has been the layman's instinctive explanation of general price increases since the dawn of the monetary system. We know of no inflationary movement that has not been blamed by some people on "profiteers", "speculators", "hoarders", or workers and peasants, "living" beyond their station. Thus, cost push inflation occurs due to non-wage factors also. For instance, monopolistic or oligopolistic firms often attempt to maintain their profit margins steady by raising the prices of their products in proportion to the rise in other cost elements. Such a cost push inflation is sometimes called "mark-up" inflation.

Cost push inflation is shown in the Figure-03. Given the demand curve AD, supply curve shifts to the left from AS1 to AS2 to AS3 as a result of rise in wages and other cost elements. Leftward shifts in the supply curve result in rise in the price level from P1 to P2 to P3 and so on.

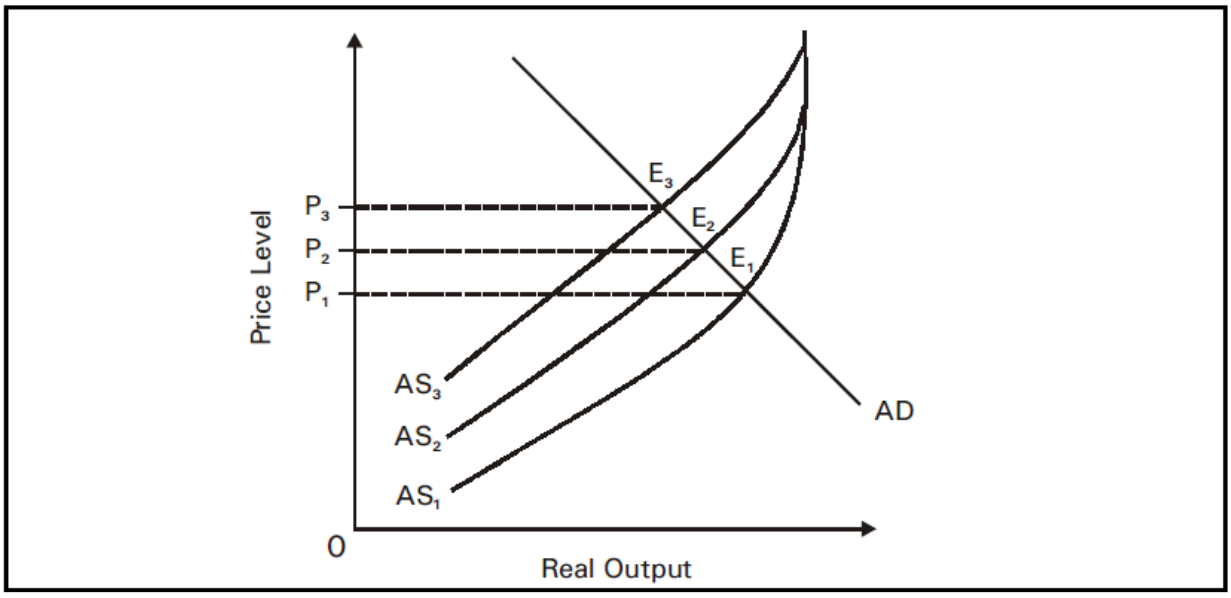


Figure-03

Causes and Prevention Methods

Causes of Inflation:

The factors which cause inflation majorly may be divided into three categories:

(1) Demand related factors
(2) Supply related factors
(3) Future expectations

Demand related factors Increase in demand may be due to the following factors:

- Increase in disposable income of the people
- Increase in money supply
- Increase in community's aggregate spending on consumption and investment goods.
- Excessive speculation and tendency to hoarding and maximum profit on on the part of producers and traders.
- Increase in foreign demand
- Population size.

These are the major issues generally which operate in combination with one another. The most important cause of inflation is excessive public expenditure financed by deficit financing during

war or on the implementation of plans for economic development. The newly created money increases government demand for goods and services and also the purchasing power of the people through increase in disposable income.

Supply related factors Shortage of supply of goods and services in the economy may be due to the following factors:

- Increase in exports for foreign exchange.
- Draught, famine or other natural calamity adversely affecting agricultural production.
- Scarcity of capital
- Prolonged industrial unrest resulting in reduction of industrial production.
- Speculative hoarding by the producer.

Future expectations Expectations of people may play an important role in shipping the inflationary trends. Expectations regarding future movement of prices and wages result in the inflationary pressure in the economy. When price are expected to increase, consumers will purchase more goods. This will lead to an increase in the price level. Expected wage can also bring inflation in the country.

Effects of Inflation

Inflation affects both production and distribution of income in the country. Rising in prices is not a good condition for any country. Under inflation rich persons become richer and poor become poorer in the country. When prices in general are in rising, debtors, businessmen, and corporate shareholders enjoy an improvement in their position, while creditors, wage earners and salaried workers, landlords and others who receive fixed incomes are adversely affected. Inflation has the following effects:

- Impact on business
- Impact on debtors and creditors
- Impact on working class
- Impact on consumers.

Measurement of Inflation

1. **The GNP Deflator** The GNP deflator is the ratio of nominal GNP in a given year to real GNP and it is a measure of inflation from the period for which the base prices for calculating the real GNP are taken to the current period. Since the GNP deflator is based on a calculation involving all the goods produced in the economy, it is a widely based price index that is frequently used to measure inflation.

2. **The Consumer Price Index** The Consumer Price Index (CPI) measures the cost of buying a fixed basket of goods and services representative of the purchases of urban consumers. CPI is a compromise. Instead of a given standard of living, we compare, over time, the money outlays required to purchase a given basket of consumption goods and services. The basket represents the actual consumption pattern of a typical family from a specific group for which the CPI is being constructed. Since tastes vary across families and relative prices can also vary geographically, a separate CPI is constructed for each of a few well defined population groups. Typical groupings are urban industrial workers, agricultural laborers, urban non-manual employees, etc.

3. **The Wholesale Price Index (WPI)** The principles of construction of WPI are quite analogous to those behind CPI. The differences between the two are:

- The items included in WPI are quite different. They include items like fertilizers, minerals, industrial raw materials and semi-finished goods, machinery and equipment, etc., apart from items in the food group and in the fuel, light and power group. The WPI can be interpreted as an index of prices paid by producers for their inputs.
- Wholesale prices rather than retail prices are used. Thus for minerals ex-mine prices, for manufactured products ex-factory prices, for agricultural commodities the first wholesaler's prices, etc., are used.
- Weights are based on value of transaction in the various items in the base year. For manufactured products it is the value of production, for agricultural products the value of marketable surplus, etc.

Control of Inflation

To control the inflation the governing authorities have to regulate the supply of money in the economy. The instruments that are used to regulate the supply of money is Monetary and Fiscal Policy. Through monetary policy RBI regulates the supply of money in the economy by regulating the CRR, SLR etc. Through these instruments RBI can directly regulate the interest rates of Banks. Through fiscal policies govt. influences the supply of money and prices of goods by bringing changes in the tax structure.

Deflation and Stagflation

Meaning of Deflation

The 'general price level' comprises the price of wages, consumption goods and services. As with inflation, there are economists who regard deflation as a purely monetary effect, when the monetary authority and the banks constrict the money supply, and there are those who believe that price deflation follows dramatic falls in business confidence, which reduces the velocity of money, i.e. the speed with which money is circulating. However, it is at least theoretically possible to have a falling money supply but stable or rising prices, if the rate of increase of the velocity of money is substantially greater than the rate at which the money supply is falling. Presumably, this is what happens in the early stages of a hyperinflation as the monetary authorities lose control over the money supply (but are initially, at least, trying to put on the brakes by the usual remedy of restricting money supply).

Effects of deflation

In economic theory deflation is a general reduction in the level of prices, or of the prices of an entire kind of asset or commodity. Deflation should not be confused with temporarily falling prices; instead, it is a sustained fall in general prices. In the IS-LM model this is caused by a shift in the supply and demand curve for goods and interest, particularly a fall in the aggregate level of demand. That is, there is a fall in how much the whole economy is willing to buy, and the going price for goods. Since this idles capacity, investment also falls, leading to further reductions in aggregate demand. This is the deflationary spiral. The solution to falling aggregate demand is stimulus either from the central bank, by expanding the money supply, or by the fiscal authority to increase demand, and borrow at interest rates, which are below those available to private entities.

In monetarist theory deflation is related to a sustained reduction in the velocity of money or number of transactions. This is attributed to a dramatic contraction of the money supply, perhaps in response to a falling exchange rate, or to adhere to a gold standard or other external monetary base requirement.

Deflation is generally regarded negatively, as it is a tax on borrowers and on holders of illiquid assets, which accrues to the benefit of savers and of holders of liquid assets and currency. In this sense it is the opposite of inflation (or in the extreme, hyperinflation), which is a tax on currency holders and lenders (savers) in favor of borrowers and shortterm consumption. In modern economies, deflation is caused by a collapse in demand (usually brought on by high interest rates), and is associated with recession and (more rarely) long-term economic depressions.

Deflation is, however, the natural condition of hard currency economies when the rate of increase in the supply of money is not maintained at a rate commensurate to positive population (and general economic) growth. When this happens, the available amount of hard currency per person falls, in effect making money scarcer; and consequently, the purchasing power of each unit of currency increases. The late 19th century provides an example of sustained deflation combined with economic development under these conditions.

Stagflation

The combined phenomenon of demand pull and cost pull inflation is found in many countries, both the developed and developing. One such situation is stagflation under which economic stagnation (in the form of a low rate of growth) combines with the rise in general price level. There are many factors contributing to this situation. It is a state of the economy in which economic activity is slowing down, but wages and prices continue to rise. The term is a blend of the words stagnation and inflation.

Business Cycles

Meaning of Business Cycles

The business cycle or economic cycle refers to the fluctuations of economic activity about its long term growth trend. The cycle involves shifts over time between periods of relatively rapid growth of output (recovery and prosperity), and periods of relative stagnation or decline contraction or recession. These fluctuations are often measured using the real gross domestic product. Despite being named cycles, these fluctuations in economic growth and decline do not follow a purely mechanical or predictable periodic pattern.

The National Bureau of Economic Research (NBER), founded in New York in 1920, pioneered research into understanding the repetitive sequences that underlie business cycles. Wesley C. Mitchell, one of its founders, first established a working definition of the business cycle that he, along with Arthur F. Burns (1946), later characterized as follows:

“Business cycles are a type of fluctuation found in the aggregate economic activity of nations that organize their work mainly in business enterprises: a cycle consists of expansions occurring at about the same time in many economic activities, followed by similarly general recessions, contractions and revivals which merge into the expansion phase of the next cycle; this sequence of changes is recurrent but not periodic; in duration business cycles vary from more than one

year to ten or twelve years; they are not divisible into shorter cycles of similar character with amplitudes approximating their own."

According to Keynes, " A trade cycle is composed of periods of good trade characterized by rising prices and low unemployment percentages, altering with periods of bad trade characterized by falling prices and high unemployment percentages."

In the words of Gordon, "Business cycles consist of recurring alternation of expansion and contraction in aggregate economic activity, the alternating movements in each direction being self reinforcing and prevailing virtually all parts of the economy."

The above definition reveals that business cycles are the regular and frequent fluctuations in the economic activities of a country. These are fluctuations in aggregate economic activity.

Features of Business Cycles

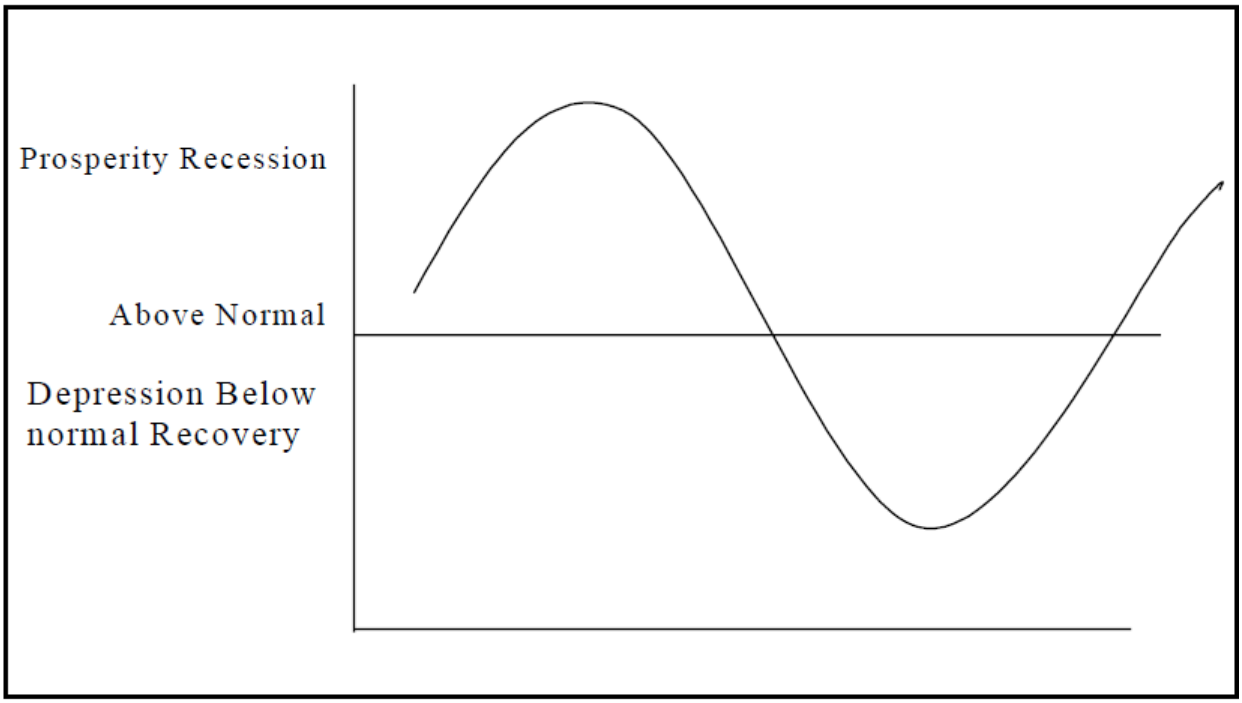
The definitions given above reveal the following features of business cycles:

- Wavelike movement
- Repetitive fluctuations
- Alternative forces
- Lack of symmetry
- Economy wide phenomenon
- Self reinforcing
- No fixed time gap
- Large impact on capital goods industries

Phases of Business Cycles

A business cycle is not a regular, predictable, or repeating phenomenon like the swing of the pendulum of a clock. Its timing is random and, to a large degrees, unpredictable. A business cycle is identified as a sequence of four phases:

1. Revival
2. Expansion
3. Recession
4. Contraction



Phases of Business Cycles

Expansion: Expansion symbolizes the upswing and prosperity in the economic activities. Expansion begins as entrepreneur expects rise in profits in near future. Expectations of profits induces the investment in economy. This investment begets employment and demand for raw material, which further increases the purchasing power of the people which results in increase market demand, which further induces the investment in economy the cycle continues. Rise in prices is particular phenomena of expansion, as increase in supply couldn't match the increase in demand. Thus the gap between demand and supply increase which results in increase in price. During expansion period bank deposits and supply of currency also increases.

End of Expansion: During peak of expansion there is phenomenal growth of fixed capital as machinery, plants, equipment etc, of debt, as there is a significant difference between interest rates and profit margins, inventory and finished goods stock as in hope of future sales organization keeps stock of inventory and finished goods.

Big profits of expansion attracts investment which also increases the competition, gradually competition becomes severs and pressure rises both on cost and price which results in squeezing profits. Cost of all the factors of production rises but it is difficult to increase the price at the same ratio, infact as competition increases organizations are compelled to decrease the price. All this led to the shut down of few uneconomical units and recession begins.

Recession: A recession occurs when a decline – however initiated or instigated – occurs in some measure of aggregate economic activity and causes cascading declines in the other key measures of activity. The Business Cycle Dating Committee at the National Bureau of Economic Research (NBER) provides a better way to find out if there is a recession is taking place. This committee determines the amount of business activity in the economy by looking at things like employment, industrial production, real income and wholesale-retail sales. They define a recession as the time when business activity has reached its peak and starts to fall until the time when business activity bottoms out. When the business activity starts to rise again it's called an expansionary period. By this definition, the average recession lasts about a year.

Thus, when a dip in sales causes a drop in production, triggering declines in employment and income, which in turn feed back into a further fall in sales, a vicious cycle results and a recession ensues. This domino effect of the transmission of economic weakness from sales to output to employment to income, feeding back into further weakness in all of these measures in turn, is what characterizes a recessionary downturn.

Depressions/Contraction: A depression is a severe downturn in economic activity. These are considerably worse than recessions. Depression is a phase of extreme pessimism. Entrepreneurs do not have any hope profits infact there is fear of severe losses in future. They not only suspends any new investment but also try to liquidate present stock and even to liquidate the fixed capital investments. In a depression unemployment increases and demand decreases. One could well imagine a period of depressed economic activity associated with falling output and employment and with unemployment climbing.

Recovery: At some point, the vicious cycle is broken and an analogous self-reinforcing virtuous cycle begins, with increases in output, employment, income and sales feeding into each other. That is the hallmark of a business cycle recovery. The transition points between the vicious and virtuous cycles mark the start and end dates of recessions. The recovery gradually starts when prices stop falling. Some innovative and young entrepreneurs brings fresh investment. During recovery there is a correction of distortion in cost price relation. During this period the cost of capital is very low as financial institutions are in search of fresh investment/lending opportunities. Some time recovery is marked with rise all together new industry. Which boosts the investment in traditional industry.