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INFLATION, DEFLATION, REFLATION

"Inflation is unjust; deflation is inexpedient. Of the two, deflation is worse."
—*Prof. J.M. Keynes.*

INFLATION

Inflation is a global phenomenon in present-day times. There is hardly any country in the capitalist world today which is not afflicted by the spectre of inflation. It is on account of this that the phenomenon of inflation has widely attracted the attention of the economists all the world over, but despite that there is no generally accepted definition of the term 'inflation' as it is a highly controversial term which has undergone modifications. Different economists have offered different definitions of inflation. In fact, there is a plethora of definitions on the subject. The layman, however, understands by the term 'inflation' a sizeable and a rapid increase in the general price level. Inflation in the popular mind is generally associated with rapidly rising prices which cause a decline in the purchasing power of money.

Definitions of Inflation

Prof. Crowther has defined inflation "as a state in which the value of money is falling, i.e., prices are rising."[1] But this definition of Prof. Crowther is defective and does not offer a complete picture of the phenomenon of inflation. This definition has been criticized on two grounds : (i) According to Crowther, every increase in the price level is inflationary and has harmful consequences for the economy. This, however, is contrary to experience. An increase in the price level in the midst of depression is not inflationary and has no harmful effects on the economy. On the contrary, it serves as a stimulant for the revival of the economy. (ii) Prof. Crowther's definition emphasizes the symptoms rather than the cause of the disease. The rise in the price level is a symptom rather than the cause of inflation. This definition fails to explain why the price level increases from time to time.

Prof. Hawtrey defines inflation as the "issue of too much currency." [2] This definition is also defective like Crowther's. It is vague insofar as it does not explain as to what is meant by overissue of currency. The definition does not offer a clear criterion of the term "overissue of currency". As such, it is unsatisfactory.

Prof. Kemmerer has defined inflation "as too much currency in relation to the physical volume of business being done."[3] Even this definition is not satisfactory. Obviously, this definition involves a comparison between the two quantities – the volume of currency on the one side and the volume of physical goods and services on the other side. The difficulty with this definition is that it suffers from vagueness. It is not possible to determine accurately the demand for money. There is no dependable technique whereby the physical volume of goods and services can be accurately converted into the demand for money. As such, Kemmerer's definition cannot be looked upon as a satisfactory definition.

Prof. Coulbourn has also emphasized the same point as has been done by Prof. Kemmerer in the above definition. He says, *"Inflation is too much money chasing too few goods."* Coulbourn's definition also involves a comparison between

1 Crowther, G., *An Outline of Money,* p. 107.
2 Hawtrey, R. G., *Trade and Credit,* p. 95.
3 Kemmerer, *A. B. C. of Inflation,* p. 6.

the quantity of money on the one side and the supply of goods and services on the other side. This definition is subject to the same limitations as Kemmerer's definition.

Prof. Goldenweiser offers a similar definition which reads as follows : *"Inflation occurs when the volume of money actively bidding for goods and services increases faster than the available supply of goods."*[1] This definition also emphasizes the same point, namely, that the value of money increases at a faster rate than the supply of goods and services.

Modern economists do not agree that money supply alone is the cause of inflation. As pointed out by *Hicks*, "Our present troubles are not of a monetary character." *Johnson* defines *inflation as a sustained rise.*"

Brooman defines inflation *"as a continuing increase in the general price level." Shapiro* also defines inflation *"as a persistent and appreciable rise in the general level of prices."*

The above definitions given by Kemmerer, Coulbourn, Goldenweiser belong to the same category. They seek to establish cause and effect relationship between supply of money and the price level. According to these definitions, the rise in the price level is caused by an increase in the supply of money. The increase in the supply of money is the cause ; the rise in the price level is the effect.

But the above cause and effect relationship between supply of money and the price level was reversed in Germany after the First World War. The rise in the price level, instead of being the result, was actually the cause of the expansion of money supply in Germany in the post-war period. In other words, the hyperinflation which took place in Germany in the postwar period could not be explained by the normal cause and effect relationship between supply of money and the price level as pointed out in the above definitions. It was the rise in prices which caused the expansion of money supply in Germany. It is in this context that Prof. Paul Einzig has drawn a distinction between 'money inflation' and 'price inflation'. According to him money inflation is the first stage of inflation in which the excess of money supply over business requirements pushes up the price level. Price inflation is the second stage of inflation when the rising price level necessitates a rapid expansion of the supply of money. During the price inflation, the prices rise with such rapidity that even the money supply cannot keep pace with them. This stage of inflation is referred to as hyperinflation. To our mind, Prof. Paul Einzig's definition of inflation quoted in the beginning of this chapter fully explains the phenomenon of inflation. In the words of Prof. Einzig, "Inflation is that state of disequilibrium in which an expansion of purchasing power tends to cause or is the effect of an increase of the price level." An analysis of this definition reveals the fact that the rise in the price level is not only the result but also the cause of the money supply.

The definitions discussed above look upon inflation as a purely monetary phenomenon. But recently, the Cambridge economists, including Pigou and Keynes, have analysed inflation as a phenomenon of full employment. Prof. Keynes has linked up the concept of inflation with the phenomenon of full employment. According to Keynes, an inflationary rise in the price level cannot take place before the point of full employment. An expansion of money supply will not lead to a rise in the price level so long as there are unemployed resources in the economy. The price level will rise only after the point of full employment has been reached. An expansion of money supply before the point of full employment will go to increase output and employment, not the price level. The price level will increase only if the expansion of money supply is continued even beyond the point of full employment. According to Keynes, the rise in the price level after the point of full employment is *true inflation.* It is possible for the price level to rise even before the point of full employment if there arise certain bottlenecks in the expansion of output in the economy. But this rise in the price level cannot be termed as true inflation. Prof. Keynes has referred to this pre-full employment inflation as semi-inflation.

TWO APPROACHES TO THE THEORY OF INFLATION

There are two main approaches to the theory of inflation : (1) The Quantity Theory of Money Approach, and (2) The Excess Demand Approach.

1. The Quantity Theory of Money Approach

This approach to inflation is based on the quantity theory of money. According to this approach, it is the increase in the quantity of money which causes an inflationary rise in the price level. The definitions of inflation offered by Hawtrey, Coulbourn, Goldenweiser advocate this approach to the phenomenon of inflation.

1 Goldenweiser, *Inflation,* p. 291.

This approach looks upon inflation as a purely monetary phenomenon. It has been subjected to criticism in recent years : (i) This approach does not adequately explain the phenomenon of hyperinflation which took place in Germany in the postwar period. As pointed out above, it was the rise in the price level which caused an increase in the supply of money there. In other words, the rise in the price level was the cause and the increase in the money supply was the result. (ii) This approach is not applicable to an economy which suffers from depression and unemployment. An expansion of money supply in such an economy may not necessarily result in an inflationary rise in the price level. An expansion of money supply in such an economy instead of raising the price level will go to increase output and employment. Inflation may not result consequent upon any expansion of money supply in an economy suffering from depression and unemployment.

2. The Excess Demand Approach

This approach has been developed in recent years by the Cambridge economists, particularly Prof. Keynes. According to them, "Just as the price of any good is determined by the demand for it and the supply of it, so also the general price level is determined by the total demand for and total supply of the group of goods concerned." Thus, according to this approach, inflation is that situation in which the total demand for goods exceeds the total supply of goods at current prices. The sole cause of inflation, according to this approach, is the existence of a persistent excess demand in the economy.

The phenomenon of excess demand can arise in a number of situations :

(1) *War Period.* During wartime the government expenditure invariably goes up and results in a substantial increase in the demand for various goods and services. It is on account of this that price level shows a rising trend during wartime.

(2) *Planning Period.* The phenomenon of excess demand can also arise during a period of developmental planning. The demand for investment goods invariably goes up under the impact of developmental planning. This results in an increase in the general price level in the economy.

(3) *Period of Rapid Technological Improvement.* The excess demand for goods and services may also rise up during a period of rapid technological developments in the economy. The reason being that technological developments necessitate fresh investments in the various sectors of the economy. This naturally increases the demand for investment goods of various types.

A situation of excess demand can also arise when the total supply of goods and services declines for certain reasons without a corresponding fall in their demand. Such a situation will also result in the emergence of excess demand leading to an inflationary rise in the price level.

We have outlined above the two approaches to the theory of inflation. There is, however, no fundamental difference between two approaches. The excess demand can become effective only through an increased supply of money. *The increased supply of money is, thus, the causal factor of inflation.* Ultimately, there is no basic difference between the quantity theory of money approach and the excess demand approach. The excess demand approach is, however, more popular than the quantity theory of money approach. It is, therefore, to the excess demand approach that we now turn for a detailed analysis.

CAUSES OF INFLATION

The above explanation of the excess demand approach highlights the various factors that cause the emergence of excess demand in the economy. The emergence of excess demand in the economy can be attributed to two main factors : (I) increase in the demand for goods and services, and (II) decrease in the supply of goods and services.

(I) Factors Causing an Increase in Demand

Both Keynesians and monetarists believe that inflation is caused by increase in demand. Following are the factors which cause an increase in the size of demand :

(1) *Increase in public expenditure.* An increase in the public expenditure consequent upon the outbreak of war or developmental planning invariably causes an increase in the demand for goods and services in the economy. In fact, this is an important cause giving rise to the emergence of excess demand in the country.

(2) *Increase in private expenditure.* An increase in private expenditure, consumption expenditure as well as investment expenditure, is an important cause of the emergence of excess demand in the economy. When business conditions are good, private entrepreneurs start investing more and more funds in new business enterprises, giving rise to an increase in the demand for the services of factors of production.

This results in an increase in factor prices. When factor incomes increase, there is more and more of expenditure on consumption goods. The ultimate effect of an increase in private expenditure is to push up the demand for commodities as well as factors of production.

(3) *Increase in exports*. An increase in the foreign demand for the country's products reduces the stock of commodities available for home consumption. It is evident that when more and more of commodities are exported to foreign countries, less and less of them are available for domestic consumption. This naturally creates a situation of shortages in the economy, giving rise to inflationary pressures.

(4) *Reduction in taxation*. The reduction in taxation offered by the government can also be an important cause for the emergence of excess demand in the economy.When the government reduces taxes, it results in an increase in the purchasing power in the hands of the public. With increased purchasing power, the people are in a position to buy more and more of goods and services for private consumption.

(5) *Repayment of past internal debts*. When the government repays its past debts to the public it results in an increase of purchasing power which the latter uses for buying goods and services for consumption purposes. This naturally leads to an increase in aggregate demand in the economy.

(6) *Rapid growth of population*. A rapidly growing population has the effect of raising up the level of aggregate effective demand for goods and services in a country. This acts as an inflationary force and tends to raise the prices to higher levels.

(7) *Black Money*. The existence of huge amount of black money in the economy is also responsible for increase in demand. People spend such unearthed or easy money extravagantly on buildings, marriages, luxurious items etc. ; thereby creating demand for commodities.

(8) *Deficit Financing*. In order to meet its mounting expenses, the government resorts to deficit financing by borrowing from the public and printing notes in the huge quantity. This raises aggregate demand in relation to aggregate supply.

(9) *Cheap Money Policy*. Cheap money policy or the policy of credit expansion also leads to increase in the supply of money which raises the demand of goods and services.

(10) *Increase in Consumer Spending*. The demand of goods and services increases when the consumer spending increases. It may be due to easy availability of credit etc. It increases the demand of goods and services.

(II) Factors Causing a Decrease in Supply

Following are the factors which result in a reduction in the supply of goods and services :

(1) *Shortage of supplies of factors of production*. Occasionally, the economy of a country may be confronted with shortages of such factors as labour, capital equipment, raw materials, etc. These shortages are bound to reduce the production of goods and services for consumption purposes. In fact, the shortage of productive factors is a serious obstacle to any effort to increase production in the country.

(2) *Industrial Disputes*. In countries where trade unions are strong, they help in curtailing inflation. Trade unions resort to strikes and if they happen to be unreasonable from employers' point of view and are unreasonably prolonged, they force the employers to declare lock-outs. In both causes industrial production falls, thereby reducing supply of goods.

(3) *Natural Calamities*. Natural calamities like floods, droughts etc. adversely affect the supplies of agricultural products. The latter, in turn, create shortage of food products and raw materials, thereby helping inflationary pressures.

(4) *Operation of Law of Diminishing Returns*. In industries in the country which are using old and obsolete machines and outdated methods of production, the law of diminishing returns operates. This raises cost per unit of production, thereby raising the prices of products leading to inflation.

(5) *Lop-sided Production*. If the stress is placed on the production of comfort and luxury goods, thereby neglecting essential and consumer goods in the country, it creates shortage of goods in the market and hence causes inflation.

(6) *Hoarding by traders*. At a time of shortages and rising prices, there is a tendency on the part of traders and merchants to hoard essential commodities for profiteering purposes. The stocks of essential goods often go underground during a period of inflation and rising prices, causing further scarcity of these goods in the market.

(7) *Hoarding by consumers*. It is not only the traders and the merchants who resort to hoarding at a time of inflation. The individual consumers also hoard essential commodities to avoid payment of higher prices in future. They also hoard essential commodities to ensure their

uninterrupted availability for private consumption.

TYPES OF INFLATION : DEMAND INFLATION AND COST INFLATION

Broadly speaking, there are two main causes of inflation : (1) an increase in effective demand, and (2) an increase in production costs. The former gives rise to demand inflation, while the latter leads to cost inflation.

(1) Demand Inflation

Demand inflation is caused by an increase in the aggregate effective demand for goods and services in the economy. It is the direct result of an excess of aggregate effective demand over the aggregate supply of goods and services. The process of the initiation of demand inflation is somewhat like this. To start with, there is an increase in the supply of money. This increase in the supply of money is soon followed by a fall in the rate of interest. The fall in the rate of interest leads to an increase in investment in the economy. The increase in investment is followed by an increase in the money incomes of the factors of production. With increased money incomes, there is an inevitable increase in the expenditure on consumption goods. It is natural on the part of the factors of production to spend additional amounts on consumption goods when their money incomes register an increase consequent upon an increase in the demand for their services. Increased consumption expenditure inevitably necessitates a further increase in investment expenditure. Since the economy was already operating at the point of full employment, an increase in investment expenditure will naturally result in demand inflation. This demand inflation will be marked by a considerable rise in commodity and factor prices in the economy. General shortages (of goods and services), lengthening queues, increasing imports, rising wage earnings, increasing employment and rising profit margins are some of the indicators of the presence of demand inflation in an economy.

This type of demand inflation generally arises in the postwar period, when people rush up to give vent to their pent-up demand for goods and services. During the war period, the people generally keep postponing their purchases on account of the all-round shortages of commodities in the economy. As soon as the war is over and the availability of consumption goods shows some improvement, the people rush to the markets to satisfy their longstanding demand for goods. The demand inflation can be tackled by the government by curtailing unnecessary demand through the adoption of monetary and fiscal measures.

(2) Cost Inflation

It is also known as supply inflation. Cost inflation is not due to excessive aggregate demand but is caused by an increase in production costs. The factors of population may deliberately raise the prices of their services through various types of collusive activities. Cost inflation is generally caused by three factors : (i) an increase in wages, (ii) an increase in the profit margins, and (iii) imposition of heavy commodity taxes. The increase in wages may be caused by a monopolistic labour union through pressure tactics. As is well known, the labour these days is well-organized into powerful trade unions. These unions, taking advantage of their organized strength, invariably dictate their own terms to the employers. This attempt on the part of the trade unions to push up the wages invariably causes cost inflation in the economy.

Cost inflation may also be caused by an organized attempt on the part of the industrialists to push up their profit margins. When such attempts are made, the prices cannot remain at their old levels. The rise in the prices caused by the raising of profit margins has its own repercussions on the working of the economy. But the profit-push elements are not so important in causing inflation as the wage-push elements are. There are two reasons for this. *Firstly,* profit constitutes rather a small part of the total price of the commodity. Even if the profit margin is raised a little, it may not have any significant effect on the price of the commodity. *Secondly,* the industrialists generally do not like to raise the profit margin beyond a certain limit for fear of alienating their customers. The wage-push elements are, therefore, a more important cause of cost inflation. Powerful trade unions get the wages pushed up even without an equivalent increase in the productivity of the workers. Under these circumstances, the increase in wages cannot but result in an increase in prices. The industrialists, on their part, shall never be prepared to absorb the increase in wages by lowering down their own profit margins. So any increase in the wages of the workers cannot but result in an increase in the price level and hence in cost inflation. It should, however, be remembered that cost inflation, when it takes place, does not remain confined to one particular sector or one particular industry. When cost inflation arises in one particular industry, it soon spreads to the other sectors of the economy as well, the reason being that the various sectors of the economy are closely linked with each other. The output of one industry may serve as the input of another industry. So, if the prices of output in one industry rise, it raises the production costs in other industries as well. The cost inflation starting in one industry soon becomes an all-round phenomenon for the economy.

Again, the government may impose heavy taxes on different commodities and in a sellers' market the producers can easily shift the tax burden on to the shoulders of the consumers along with a margin of their own. This invariably causes cost inflation in the economy.

It should, however, be remembered that demand inflation and cost inflation are not mutually exclusive concepts. Demand inflation, when it once starts, may soon land the economy into cost inflation. An increase in the prices of consumption goods is invariably accompanied by the demand for higher wages on the part of the workers. The prices of raw materials may also register a rise under the impact of demand inflation. An increase in wages and the prices of raw materials will naturally lead to the emergence of cost inflation in the economy. It is, thus, difficult to demarcate the line between demand inflation and cost inflation. Increasing commodity taxation, rising wages, falling profit margins, frequent devaluations of national currency (to push up exports) are important indicators of the presence of cost-push inflation in the economy.

Of the two types of inflations, cost inflation is much more difficult to control than demand inflation. Demand inflation can be tackled by adopting various types of monetary and fiscal measures to mop up surplus purchasing power from the hands of the public, but cost inflation be easily controlled through monetary and fiscal measures. The reason is obvious. Any attempt to cut down wages by the authorities will be met by stiff resistance on the part of the workers.

The theory of inflation would be complete only if the two sides, namely, the demand side and supply side are integrated to provide a viable explanation of the phenomenon of rising prices.

KEYNESIAN CONCEPT OF INFLATIONARY GAP

Keynes' views on inflation have already been referred to in the preceding pages. As pointed out there, an expansion of money supply, under conditions of unemployment, does not lead to an inflationary rise in the price level. It leads rather to an increase in output, though in the later stages of expansion, even the price level may increase due to certain bottlenecks. But this rise in prices before full employment is not *real inflation*. Real inflation comes into being only if monetary expansion continues even beyond the point of full employment. Then every additional expansion of money supply shall exert its full effect on prices, raising them to higher and higher levels. Thus, according to Keynes, expansion of money supply need not frighten us so long as there are unemployed human and material resources in the economy. Keynes does not deny that prices may rise even before the point of full employment is reached, but that would not be real inflation. It shall only be "bottleneck inflation" as he put it.

Keynes tried to explain the phenomenon of inflation in terms of his well known concept of inflationary gap in his famous pamphlet entitled *How to Pay for the War ?* The Keynesian concept of inflationary gap represents the technique of statistically measuring the pressure of inflation in the economy. The inflationary gap for the economy as a whole may be defined in the words of Prof. Kurihara, "as an excess of anticipated expenditure over available output at base prices."[1] The anticipated total expenditure referred to in the above definition depends upon the net disposable income of the community. The net disposable income of the community, in its own turn, is arrived at by subtracting taxation and saving out of the total money income.

Net disposable income = Total money income − taxation − saving.

Anticipated total expenditure of the community is determined by the aggregate consumption, investment and government outlays. Thus,

$$\text{Total anticipated expenditure} = C + I + G$$

(where, C represents consumption expenditure, I denotes investment expenditure, and G shows government outlay on goods and services.)

The real output, on the other hand, is determined by the conditions of employment plus the technological basis of the economy. The inflationary gap is a situation where the anticipated expenditure (i.e., the demand for output) exceeds the available output at pre-inflation prices. It is measured by the difference between the net disposable income on the one hand and the available output on the other.

1 Kurihara, Kenneth K., *Monetary Theory and Public Policy*, p. 41.

The inflationary gap may develop in the economy like this. To start with, there is an increase either in private investment or government outlays. This has the result of raising the money income of the community to higher levels, but the real output of goods and services does not increase because the economy is already operating at the point of full employment. The failure of the economy to raise its output in response to the increase in money incomes results in the emergence of the inflationary gap. The inflationary gap is, thus, the result of *excess demand* in the economy. In other words, the inflationary gap is equal to net disposable income minus real output of goods and services.

To illustrate the concept of inflationary gap, we can take the example of a wartime economy which is generally a full-employment economy. The value of gross national product in an economy (whether wartime economy or peacetime economy) is determined by the aggregate consumption expenditure (*C*) plus private net investment (*I*) plus government outlay (*G*) on goods and services. Let us suppose that the value of gross national product is Rs. 270 crores at preinflation prices. Actually, this represents the total output of the economy at preinflation prices. Now, if out of this total output of Rs. 270 crores the government takes away output equivalent to Rs. 90 crores for war purposes, then only Rs. 180 crores worth of output is available for civilian consumption. In this way, Rs. 180 crores represents the supply side of the economy. It is the value of the available supply of goods for civilian consumption. Now let us take the demand side into consideration. If the price level in the economy is not to rise, then the incomes paid out to the factors of production should be in proportion to the value of goods at pre-inflation prices. In other words, the money income paid to the factors of production must also be equal to Rs. 180 crores. In that case, there shall be no inflationary gap and hence no rise in the price level. Let us now suppose that the money income paid to the factors of production is Rs. 300 crores. If out of this total money income the government takes away Rs. 50 crores by way of taxes, then the total disposable income left with the community would be Rs. 250 crores. Assuming that the community pays another sum of Rs. 50 crores by way of saving, then the net disposable income would be Rs. 200 crores. This is the actual amount of money income which is available to the community for spending purposes. But, as pointed out above, the civilian consumption goods available amount to Rs. 180 crores at the pre-inflation prices. When the net disposable income of Rs. 200 crores is allowed to compete with the available output of Rs. 180 crores, there arises an inflationary gap equivalent to Rs. 20 crores.

The above process has been summarized in the Table below.

From this Table, it is clear that there is an inflationary gap of Rs. 20 crores in the economy. So long as this inflationary gap continues to exist, the price level shall go on rising upward. But if somehow this inflationary gap of Rs. 20 crores is wiped out, there shall be no inflation at all. The government can reduce a part of the inflationary gap by cutting down disposable income through taxes. But the whole of the gap cannot be wiped out through taxation because in that case there is bound to be tax resistance and popular unrest. So it is advisable to remove the inflationary gap through taxes as well as induced saving. Yet another way to reduce or narrow down the inflationary gap is to increase the supply of consumption goods. But in wartime the scope for increasing the supply of consumption goods for civilians is rather limited. So the only methods available for narrowing down the inflationary gap during wartime are taxes and public borrowing. It should, however, be remembered that the inflationary gap cannot be completely wiped out

TABLE

(in crores of rupees)

Demand Side		*Supply Side*	
Total money income	300	Gross national product (at pre-inflation prices)	270
Minus taxes	50	*Minus* war expenditure	90
Total disposable income	250	Available output for civilian consumption (at pre-inflation prices)	180
Minus Saving	50		
Net disposable income	200		

Hence, Inflationary Gap=200–180=Rs. 20 crores.

during wartime. Hence, the possibility of inflation is always there in a wartime economy.

We have seen above that the inflationary gap arises in a wartime economy. But it is quite possible for the inflationary gap to emerge in a planned economy as well. Under developmental planning, the public expenditure considerably increases, giving rise to an increase in the money income of the community. But the supply of consumption goods does not increase in the same proportion on account of the existence of bottle-necks in the economy. This naturally results in the emergence of an inflationary gap which inevitably results in an increase in the price level. The basic point to remember is that there shall be no rise in the price level if the amount of disposable income in the community and the volume of output available are the same. But in case the amount of disposable income exceeds the volume of output available, an inflationary gap is bound to rise in the economy. If, on the contrary, the volume of output exceeds the disposable money income, then a deflationary gap is bound to emerge, giving rise to a falling price level in the economy. If the danger of inflation is to be avoided in a developing economy, it is important to wipe out the inflationary gap as much as possible. The task, however, is not easy. The nature of investment in a developing economy is such that there is a prolonged gestation period between investment and the ultimate production of goods and services, giving rise to inflationary pressures during the intervening period.

The concept of inflationary gap can be illustrated by means of a diagram as shown below.

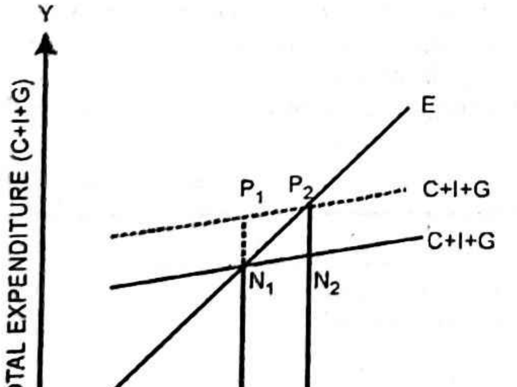

Fig. 11.1

In this diagram, the X-axis represents the gross national product or the real income of the community. The Y-axis shows the total anticipated expenditure $(C+I+G)$. C indicates consumption expenditure, I denotes private investment expenditure, and G represents government expenditure. The total anticipated expenditure of the economy is indicated by the $C+I+G$ function. The 45° line OE is the equilibrium line indicating that the economy is in equilibrium when the output of goods and services (as represented by the G.N.P.) equals the demand for them (as represented by the total expenditure). The $C+I+G$ curve intersects the line OE at the point N_1. This gives us the equilibrium income indicated by OM_1. This OM_1 represents the full employment income at the preinflation prices. The aggregate monetary demand here is shown by the $C+I+G$ curve, which is equal to N_1M_1 .This N_1M_1 is equivalent to the total output of goods and services amounting to OM_1. Since the total money income is equal to the total available output, there is no question of any excess demand ; hence, there is no possibility of the emergence of an inflationary gap in the economy.

Now let us suppose that for some reasons the government increases its expenditure by a certain amount, say P_1N_1, as shown in the above diagram. This raises the total government expenditure from the earlier level of G to G'. Thus, the new expenditure function in the economy is $C+I+G'$. Since OM_1 is the real income of the economy at the full employment level, it does not increase with the increased government expenditure (G') amounting to P_1N_1. Now P_1N_1 represents the excess of monetary demand over the available output of goods (i.e., OM_1). Thus, P_1N_1 represents the inflationary gap in the economy. It naturally raises the price level to higher and higher levels. Since the economy is already operating at the point of full employment, the supply of money income increases more rapidly than the output of goods and services in the economy. With the expenditure increasing faster than the output of goods and services in the economy, the prices will naturally rise to equate the increased expenditure with the money value of output at a higher price level. The inflationary gap may, therefore, be defined as the amount by which the monetary demand exceeds the value of current output at existing prices. In order to keep prices constant, the output should be increased by an amount that is sufficient to absorb the excess demand caused by the increased government expenditure. In the context of the above diagram, the price level can remain constant only if the output of goods and services increases from OM_1 to OM_2. In other words, the output of goods and services in the economy must increase by M_1M_2. This amount of output is equal to the excess demand P_1N_1 caused by the increased government expenditure. The inflationary gap of P_1N_1 in the above diagram can be wiped out only if the output of goods and services increases by M_1M_2.

The concept of inflationary gap is a very useful concept in economic analysis. It is of great practical significance. The inflationary gap not only measures statiscally the pressure of inflation in the economy ; it also highlights the nature and the extent of antiinflationary measures, both fiscal and monetary, which the government can adopt to cure the economy of the malady of inflation. In the words of Prof. Kurihara, "An analysis of the inflationary gap in terms of such aggregates as national income, investment outlays and consumption expenditures clearly reveals what determines public policy with respect to taxes, public expenditure, saving campaigns, credit control, wage adjustments – in short, all the conceivable anti-inflation measures affecting the propensities to consume, to save and invest, which together determine the general price level."[1]

An Analysis of Inflationary Pressures in the Economy

It is easy to explain inflationary pressures in an economy in terms of the inflationary gap both from the demand side and the supply side. By *demand* is meant the income demand or the demand for money income for commodities and services, while *supply* here indicates the available output of goods and services on which money income can be spent by the community. On the demand side, the main inflationary factors are : (i) the supply of money, (ii) disposable income, (iii) consumer expenditures and business outlays, and (iv) foreign demand. During wartime, the supply of money increases due to increased demand deposits (consequent upon increased governmental spending) and expansion of bank credit, exerting upward pressure upon the price level. The volume of disposable income also records a rise due to a large increase in national income. No doubt, a part of the disposable income is saved, but a major portion is spent on consumption goods, thus, tending to raise prices still further. Business outlays also increase during an inflationary boom, raising total spending to still greater heights. And finally, an increased demand for domestic goods and services, on the part of foreign countries, exerts strong inflationary pressure on prices.

In contrast to a sharp rise in monetary demand (at a time of war) the supply of goods and services tends to increase at a slow rate, widening the inflationary gap still further. Why does the output of goods and services increase at a slow rate ? The main reason is that during an inflationary boom the human and material resources are already fully employed and as such any attempt to increase output is accompanied by several bottlenecks and shortages of labour, raw materials and equipment. The situation is rendered still more difficult by the wage-price spiral. Demands for wage increases often lead to price increases. In addition, *expectations* also play an important role in the speed-up of inflation. The expectations of higher prices in future lead to hoarding both on the part of the consumers as well as businessmen. Expectations of wage increases often induce some business men to increase the prices of their products even before the upward wage adjustments have actually been made.

TYPES OF INFLATION

There are several types of inflation observable in an economy. These can be classified as under :

(I) Creeping, Walking, Running and Galloping Inflations

This classification is made on the basis of the 'speed' with which the prices increase in the economy.

(1) *Creeping Inflation*. When the price rise is very slow like the pace of a snail or creeper, it is called creeping inflation. It is the mildest type of inflation. The government has sometimes to resort to creeping inflation to make the economy dynamic. This type of inflation serves as a tonic for a backward and underdeveloped economy. Under this, the prices rise slowly ; industry and trade receive stimulus and the country slowly and gradually develops economically. It is on account of its stimulating effect that some economists welcome it for the economic development of a backward economy. In fact, there are some economists who support creeping inflation in the form of a slow and gradual rise in prices to keep the economy away from stagnation. But there are also some economists who look upon creeping

1 Kurihara, Kenneth K., *Monetary Theory and Public Policy*, p. 45.

inflation as potentially dangerous. Their view is that if proper control is not exercised over creeping inflation, it may assume alarming proportions with the lapse of time. They, therefore, suggest that creeping inflation must be controlled effectively in time before it is too late. It has been pointed out that the price level rises approximately by 2% annually under creeping inflation. As such, creeping inflation may not be considered to be too dangerous for the smooth functioning of the economy.

(2) *Walking or Trotting Inflation. When prices rise moderately and the annual inflation is a single digit, it is called walking or trotting inflation.* The rate of the increase of the price level acquires greater speed and rapidity under walking inflation. Roughly speaking, the price level under walking inflation rises approximately by 5% annually. If proper control is not exercised over walking inflation in time, it can easily assume the form of running inflation.

(3) *Running Inflation. When the prices rise rapidly like the running of a horse at a rate of speed 10 to 20 per cent per annum, it is called running inflation.* The rate of the increase of price level gets further accelerated under running inflation. The price level under this type of inflation rises approximately by 10% every year. In case, the government fails to curb running inflation in time, it may easily develop into galloping inflation.

(4) *Galloping Inflation or Hyperinflation. When prices rise very fast at double or triple digit rates from more than 20 to 100% per annum or even more, it is called hyper or galloping inflation.* In fact, this is the most dangerous type of inflation. Under this type of inflation, the prices rise every minute and there is no upward limit to which the price level may rise in course of time. Lord Keynes has referred to this type of inflation as the *true inflation.* This type of inflation invariably occurs after the point of full employment. Under this, the price level rises approximately by 16% every year. There are two classic examples of galloping inflation in recent history, (i) the Great Inflation of Germany after the First World War, and (ii) the Great Chinese Inflation after the Second World War. In both of these countries, the inflationary forces had assumed highly alarming proportions.[1]

The above classification, as already pointed out, has been made on the basis of the 'speed' with which the price level rises in the economy. Under creeping inflation, the prices rise up by 50% in 25 years but under walking, running and galloping inflations this rise of 50% in the price level takes place in 10, 5 and 3 years respectively. In fact, these stages of inflation are similar to the stages of the physical development of a child. Just as a child first learns to creep and then in course of time learns to walk, run, and finally gallop, creeping inflation can also develop into walking, running and then galloping inflations in due course of time.

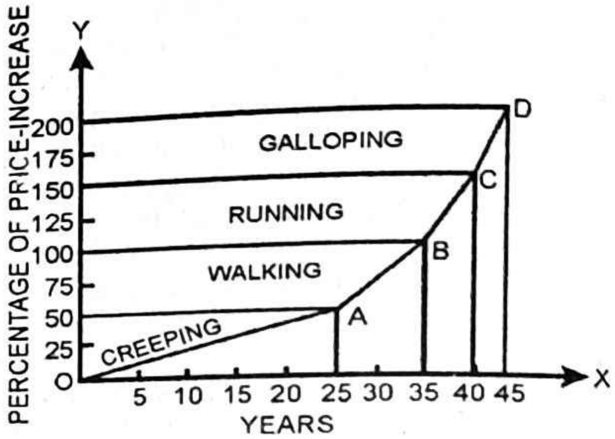

Fig. 11.2

The above explanation of inflation can also be represented by means of a diagram. In the above diagram, the 'years' have been represented on the *X*-axis and the percentage increase in the price level on the *Y*-axis. In the first period of 25 years, the prices of the commodities have gone up by 50%. The *OA* line represents creeping inflation. In the second period of 10 years, the prices have gone up by 50%. The *AB* line in the above diagram denotes walking inflation. In the third period of 5 years, the prices again shoot up by 50%, and the *BC* line shows running inflation. In the same manner, the prices rise by 50% in the fourth period comprising three years in duration. The line *CD* represents galloping inflation. Thus, in a total period of 43 years, all the four types of inflation take place in succession and the price level rises by 200% during the entire period.

(II) Comprehensive and Sporadic Inflations

The former type of inflation occurs when the prices of all commodities register a rise in the economy. It is comprehensive inflation. Normally speaking, inflation, when it takes place, is comprehensive inflation. The prices of almost

1 A German citizen, harassed by the continuing galloping inflation after the First World War, remarked, "We used to go to the stores with money in our pockets and come back with food in our baskets. Now we go with money in baskets and return with food in our pockets."—See P. A. Samuelson, *Economics* (1948), p. 283.

all the commodities show an upward trend during a period of inflationary spiral.

Sporadic inflation, on the other hand, is sectoral inflation Under this type of inflation, the prices of all the commodities do not register a rise. Only the prices of a few commodities show an upward trend. The prices of a few commodities may rise upwards on account of central physical bottlenecks which may impede any attempt to increase their production. For example, the prices of goodgrains may show an upward rise on account of the failure of crops, consequent upon the failure of rains. Hence, sporadic inflation is of a sectoral nature. It can be dealt with effectively if the government resorts to the imposition of direct price control on the sale of the affected commodities.

(III) Open and Repressed Inflation

Inflation can also be classified into open and repressed inflations according to the government's reaction to the presence of inflationary pressures in the economy.

(1) *Open Inflation.* An inflation is said to be open when the government takes no steps to check the rise in the price level. Open inflation is allowed to continue unchecked without any attempt on the part of the government to hold the price line. Under open inflation, the market mechanism is allowed to work itself out fully without restrictions being imposed by the government. The market mechanism is left free to distribute resources amongst the various industries. If there is any shortage of any particular resource, the market mechanism would inevitably raise its price and allocate it to those uses and industries which can afford to pay a higher price for it. Thus, the market mechanism performs its classic function of distributing scarce factors among competing industries. The hyperinflation experienced by Germany after the First World War is an eloquent example of open inflation.

(2) *Repressed Inflation.* An inflation may be said to be repressed inflation when the government actively intervenes to check the rise in the price level. The government may check the rising trend in the price level by resorting to price control and rationing of scarce items in the economy. During the Second World War, the inflationary forces were kept under check through the imposition of wartime controls in almost all the countries of the world. As soon as the war is over and the wartime controls are withdrawn, repressed inflation inevitably bursts out into open inflation. The wartime controls, however, check the rising prices and distribute the scarce commodities through a system of price control and rationing. Thus, the administration of controls on prices and rationing of scarce goods is an inseparable feature of repressed inflation. It is on account of this that repressed inflation invariably results in such evils as profiteering, black-marketing, hoarding and corruption on a large scale. This may also lead to the diversion of economic resources from the more essential to the less essential industries, the reason being that the price mechanism under repressed inflation is not allowed to function freely. The prices of essential goods are statutorily fixed, while those of nonessential goods are left free and uncontrolled. The margin of profit being higher in nonessential goods, the economic resources are bound to be diverted to the production of such goods to the detriment of the community.

(IV) Full Inflation and Partial Inflation

Prof. Pigou has classified inflation into (i) full inflation, and (ii) partial inflation. According to Prof. Pigou, the price level consequent upon the expansion of money supply in the pre-full employment stage is referred to as partial inflation. There is only a slight increase in the price level under partial inflation. The increase in the supply of money goes to mobilize the idle resources in the economy. This results in an increase in the volume of employment in the economy. Thus, the increase in the supply of money before the point of full employment goes to increase the volume of output and employment rather than the price level.

But the increase in the supply of money after the point of full employment does not increase output and employment (because there already exists full employment of resources in the economy), but leads to a sharp uninterrupted rise in the price level. Such a situation is referred to as the situation of full inflation.

(V) Peacetime, Wartime and Postwar Inflation

(i) *Peace-time inflation.* This classification of inflation has been done on the basis of 'time'. By *peacetime inflation,* we mean the rise in the price level during peacetime. This type of inflation is very often the result of increased governmental expenditure on ambitious developmental projects in the economy. Such an inflation very often occurs during a period of planned economic development in backward and underdeveloped economies.

(ii) *Wartime inflation,* on the contrary, arises during a period of war. Modern wars, as is well known, are total wars, necessitating huge governmental expenditure on their successful prosecution. During wartime, the increase in the output of goods and services does not keep pace with the expansion of money supply. An inflationary gap inevitably emerges which results in a rising price level.

(iii) *Postwar inflation* generally takes place immediately after the cessation of hostilities when the pent-up demand finds open expression on the relaxation of price and physical controls by the government. The rise in the price level under postwar inflation may even be more rapid than during wartime inflation.

(VI) Currency Inflation and Credit Inflation

An inflation may also be classified on the basis of the 'factors' which cause this phenomenon. Under this head, we shall consider not only currency and credit inflations but also profit-induced, deficit-induced, wage-induced and scarcity-induced inflations.

(a) *Currency Inflation.* This is the classic type of inflation marked by an excess supply of money in relation to the available output of goods and services. Since the excessive supply of money is confronted with a limited supply of goods and services, it inevitably results in an inflationary rise in the price level. This type of inflation generally occurs at a time of war.

(b) *Credit Inflation.* Sometimes the government encourages an expansion of credit without expanding the supply of money in circulation. This is known as credit inflation. The main objectives of credit inflation are, (i) to lighten the burden of indebtedness of the farmers, (ii) to expand production, and (iii) to mobilize financial resources for development plans.

(c) *Profit-induced Inflation.* Sometimes the production costs start declining, and consequently, the prices also show a declining trend. But the government does not allow the prices to fall down by resorting to artificial means. In such a situation, the prices do not go up but at the same time they are not allowed to fall down. This situation results in an increase in the profit margins of the producers. Prof. Keynes refers to this type of inflation as profit-induced inflation. Under profit-induced inflation, the prices continue to stay at the old levels.

(d) *Deficit-induced Inflation.* Very often, it happens that the government fails to step up its income to meet the increased expenditure consequent upon the outbreak of the war. This results in a deficit in the budget of the government. The government is not able to cover this deficit by resorting to new taxes and public borrowings. Under these circumstances, the government is forced to cover the deficit by resorting to the printing press. This is known as deficit-induced inflation. The government of a backward, underdeveloped country may also be forced to resort to deficit financing to finance its developmental plans. This may result in a rising price level. Since the deficit in the budget is covered by resorting to the printing press, this type of inflation is known as deficit-induced inflation.

(e) *Wage-induced Inflation.* When the workers organize themselves into powerful trade unions and force the employers to increase their wages, this inevitably pushes up production costs. Consequently, the prices of goods and services rise upward. This may be referred to as wage-induced inflation.

(f) *Scarcity-induced Inflation.* When the supply of money does not increase but the supply of goods decreases on account of natural calamities, the prices show an upward trend. This may be called scarcity-induced inflation or production inflation.

Besides the above, there are other types of inflations as well, namely :

(g) *Mark-up Inflation.* This term is quite current in the U.S.A. This type of inflation is attributed to the peculiar method of pricing (of goods and services) adopted by the gigantic business organizations operating in that country. According to this method, the big business organizations calculate their production costs first and then add to these costs a certain mark-up to yield the targetted rate of profit on their capital investment. The mark-up is invariably on the high side and constitutes not an insignificant cause of inflationary pressure in U.S.A. The mark-up method is being abused by the monopoly business organizations to inflate their profits. The higher the demand, the greater is the size of the mark-up.[1]

1 A study prepared for the U.S. Congressional Joint Economic Committee revealed that unemployment and recession tend to feed inflation rather than acting as a cure. This conclusion was reached by Professors Howard M. Wachtel and Peter D. Adelsheim of American University based on a study of price mark-ups during the five postwar recessions from 1947 to 1970 in the U.S.A. The study found that big business corporations in the concentrated industries tend to increase prices, when sales volume falls, to maintain profit margins at old levels. This, the authors point out, contradicts standard economic theory that combating inflation necessitates the creation of unemployment to control demand and reduce the rate of price increases.

(h) *Ratchet Inflation.* A ratchet, when it takes hold of a mechanism, holds it in a fixed position. Under ratchet inflation, the prices in certain sectors are not allowed to fall (or, are held in a fixed position) even though there are strong reasons for the prices to decline. Sometimes, it happens that the aggregate demand in the economy is not high, but it is not properly distributed among the various sectors. In certain sectors, the aggregate demand is excessive, while in others it is quite low. In the former sectors, the prices would register a rise, while in latter sectors, the prices *should* decline. But the prices are *not* allowed to fall in accordance with the low aggregate demand in the latter sectors due to resistance from the industrialists and trade unions. Thus, while the prices in the excess-demand sectors rise, they are not allowed to fall in the deficient-demand sectors. The net result is a rise in the general price level. This is known as 'ratchet inflation'.

(i) *Stagflation.* A new type of inflation had come into vogue in the postwar period particularly since the 'sixties. This is known as *stagflation*. It is not inflation in the strict Keynesian sense. Inflation in the Keynesian sense is accompanied by *overfull* employment. All the remedies suggested by J. M. Keynes were intended to tackle this type of inflation. But the present-day inflation is quite different from the traditional inflation with which the world had to struggle prior to the 'sixties. The present-day inflation is accompanied, *not* by full employment but by *increasing* unemployment. The term "stagflation" appropriately depicts the present-day inflationary situation in the world. It is inflation *accompanied* by stagnation on the development front. High prices and high unemployment go hand in hand. "Stagflation" is a global phenomenon today. No country, whether developed or developing, is free from its clutches. The whole western world, particularly Great Britain, Italy, U.S.A. are in the grip of "stagflation" today. The developing countries, including India, have also fallen prey to this most vicious type of inflation. Apart from its debilitating effects, it is the *most* difficult type of inflation to deal with. The well known Keynesian remedies, such as, budget surpluses, higher taxes and spending cuts have not only *not* arrested inflation, but have also aggravated the unemployment situation in various countries of the world. Any step taken to ease the unemployment situation through increased capital investment adds to the inflationary fire while any policy adopted to deal with inflation through cuts in public expenditure, increases the number of unemployed. The world stands today between the devil (of inflation) and the deep sea (of unemployment).

(j) *Sectoral Inflation.* Sometimes the rise in prices may *not* be general, but restricted to a *particular* sector of the economy. This type of inflation is referred to as *sectoral inflation.* If timely steps are not taken, the inflation in a particular sector may soon spread to other sectors of the economy. It may, then, cease to be sectoral inflation. For example, agricultural production suffered a serious setback in India during 1979-80 due to drought conditions. Agricultural prices shot up. This inflation, however, did not remain confined to the agricultural sector for long. The manufacturers also pushed up the prices of their products due to the higher cost of raw materials and increased wages.

(k) *Imported Inflation.* It refers to that type of inflation which is caused in a country due to the operation of external inflationary pressures which are transmitted to the country concerned through foreign trade. For example, if a country depends to a very large extent on imported goods and services, any inflationary pressure originating abroad is bound to have its repercussions on its domestic economy. Several successive hikes in the prices of petroleum and petroleum products by the oil exporting countries after 1973 have had their impact on the price situation in India.

STAGES OF INFLATION

It is often said that like tuberculosis inflation passes through three stages. In the first stage, the rise in prices is slow and gradual. In this stage, it is comparatively easier to check the inflationary rise in the prices of goods and services. But if inflation is not effectively checked in the first stage then like tuberculosis it enters into the second stage. Inflation, in the second stage, becomes a serious headache for the government. The prices of goods and services now start rising much more rapidly than before. The government finds it difficult to keep the rising price level under check. In the second stage, it is not possible to eliminate inflation completely, but if the government takes effective steps, it may be possible to prevent a further rise in the price level. In the third stage, inflation assumes alarming proportions. In this stage, inflation degenerates into hyperinflation or runaway inflation. The prices of goods and services now start rising almost every minute and it becomes impossible for the government to check them. The entire economy of the country is seriously disrupted. Finally, the government is compelled to resort to demonetization of the currency.

The above three stages of inflation can be illustrated with the help of an example. In the first stage, the prices do not rise in the same proportion in which the supply of money increases. In other words, the prices rise in a proportion less than that of the increase in the supply of money. For example, if the supply of money increases by 10%, the prices rise by 5% or even less than that. In the second stage, the prices rise exactly in the same proportion in which the supply of money increases. In other words, if the supply of money increases by 10%, the price level also goes up exactly by 10%. In the third stage, the prices rise in a much greater proportion than the increase in the supply of money. In other words, if the supply of money increases by 10%, the price level may rise by 15% or even more. Now, we shall describe the above three stages one by one.

1. Pre-full Employment Stage

As said above, the rise in the price level in the first stage is less than proportionate to the increase in the supply of money. Let us suppose that the supply of money increases by 10%. As a result, there will be an immediate rise in the price level. Consequently, the production of goods and services will receive stimulus. As a result of the increase in the output of goods and services, the price level will come down. But if the supply of money is again increased by 10%, the price level will rise up, giving encouragement to the production of goods and services in the economy. In this way, if there is a continuous increase in the supply of money, a stage will come when the output of goods and services may not increase in the same proportion in which the supply of money increases. The reason being that with the expansion of production, the supply of the factors of production, goes on declining. The hitherto unutilized resources are now already fully mobilized for production. With the lapse of time, there arises scarcity of productive resources in the economy. Consequently, the rate of increase of production slows down.

2. Full Employment Stage

If the supply of money continues to increase without any interruption, then after some time production will cease to increase, or in other words, production will become stagnant. The reason being that all the productive resources are already fully employed. In other words, there is already full employment of productive resources in the economy. Extra resources are not available for a further expansion of production. Hence, the further expansion of production comes to an end. Since production becomes constant, the price level now starts increasing in the same proportion in which the supply of money increases.

3. Post-full Employment Stage

If the supply of money continues to increase even after the point of full employment, then for some time the price level will increase in the same proportion in which the supply of money increases. But after that the supply of money increases so much that the public loses confidence in it and the increase in the price level is much more than the increase in the supply of money. For example, if the supply of money increases by 10%, then the price level increases by 20%, 30% or even 40%. In such a situation, it becomes difficult, if not impossible, to check the rise in the price level. This is the final stage of inflation. In this stage, the prices rise so high that money exchange comes to be replaced by commodity exchange in due course of time. Finally, the entire economy collapses with dangerous economic and political consequences for the country.

EFFECTS OF INFLATION

A period of prolonged, persistent and continuous inflation results in the economic, political, social and moral disruption of society. The effects of inflation can be discussed under two sub-heads—(I) effects on production, and (II) effects on distribution.

(I) Effects on Production

The phenomenon of inflation produces a very deep impact on the production of wealth in the economy. Inflation may not always be detrimental to productive activities in the economy. Mild inflation (which may more appropriately be called creeping inflation) may actually be good for the economy, particularly when there are unemployed productive resources in the country. An expansion of money supply in an underemployed economy will result in a slow and gradual rise in the prices. The production costs in such an economy do not increase in the same proportion as the prices with the result that the profit margins of the businessmen continue to increase, creating optimistic conditions in the economy. Encouraged by these rosy conditions, the businessmen increase their investments in productive activities, generating more income and employment in the economy. This process of increased investments and increasing employment continues till the point of full employment is reached. But after the point of full employment of productive resources, any expansion of money supply is bound to result in hyperinflation. Thus, an expansion of money supply up to the point of full employment may not be harmful for the economy. In fact, mild inflation may serve as a tonic for the economy of the country. But any expansion of money supply after the point of full employment will degenerate into runaway or hyperinflation. And hyperinflation, as already pointed out above, is very harmful for the economy. It creates business uncertainty which is inimical to production.

It is this hyperinflation which has harmful consequences for the economy. In fact, hyperinflation disrupts the smooth functioning of the economy. This type of inflation has the following adverse effects on the productive activities of the country :

(1) Since hyperinflation results in a serious depreciation of the value of money, it discourages savings on the part of the public. With reduced savings, the process of capital accumulation suffers a serious setback.

(2) If the value of money undergoes considerable depreciation, this may even drive out the foreign capital already invested in the country.

(3) With reduced capital accumulation, the investment will suffer a serious setback which may have an adverse effect on the volume of production in the country.

(4) The volume of production will not only decline on account of the slowing down of capital accumulation, it may also decline on account of business uncertainty which may discourage entrepreneurs and businessmen from taking business risk in production.

(5) The pattern of production in the economy may also undergo changes under the impact of runaway inflation. This type of inflation may result in the diversion of productive resources from the essential goods industries to the luxury goods industries, creating further shortages of consumer goods for the common man.

(6) Since runaway inflation results in a seller's market, it may lead to a serious deterioration in the quality of goods produced in the economy.

(7) Inflation also leads to hoarding of essential goods both by the traders as well as the consumers. The traders hoard stocks of essential commodities with a view to making higher profits or with a view to selling scarce items in the black market. The consumers also resort to hoarding of essential goods for fear of paying higher prices in the future. They may also hoard essential goods with a view to ensuring their continuous and uninterrupted supply for themselves.

(8) The worst part of inflation is that it gives stimulus to speculative activities on account of the uncertainty generated by a continually rising price level. Instead of earning increased profits out of increased production, the businessmen find it easier to increase their profits through speculative activities.

(9) The most serious effect of inflation is that it disrupts the smooth working of the price mechanism, thereby creating an all-round confusion in the economy.

(10) The economic system loses its flexibility under the impact of inflationary forces which have the knack of reducing the mobilities of productive resources in the economy.

(11) The worst effect of hyperinflation is that in due course of time it results in a flight from domestic currency on account of its constantly diminishing value. In an advanced stage of hyperinflation, the people lose confidence in their home currency and rush to buy foreign currencies of stabler value to safeguard their assets. In fact, there is a scramble on the part of the people to exchange home currency for foreign currency in the foreign exchange market.[1]

Nevertheless, as pointed out above, a mild dose of inflation serves as a *stimulant* by energising and activating idle resources in the economy. It induces movement of real resources to the expanding sectors of the economy. It encourages entrepreneurs to make investments in new enterprises which leads to an increase in productive capacity and, ultimately, in the volume of production. Price stability need not be interpreted as price rigidity. Economic stability, in fact, is quite consistent with an annual increase of 3 to 4 per cent in the general price level. This produces salutary effect on the economy as a whole.

1 Due to advanced inflation in the U. S. A. the people all the world over have lost faith and confidence in the American Dollar. Some countries have already delinked their currencies from the U. S. Dollar. So much so that the OPEC countries are hesitant about accepting payments for their oil exports in the U. S. Dollars.

(II) Effects on Distribution

Inflation produces a deep impact on the distribution of income and wealth in society. A prolonged period of persistent inflation results in redistribution of income and wealth in favour of the already richer and more affluent classes of society. The distributive share accruing to the business classes increases much more than that of wage-earning or rentier classes. Businessmen, traders, merchants, and speculators reap rich harvests on account of windfall profits accruing to them as a result of the inflationary rise in prices. Prices under the pressure of inflation rise much more than the production costs. There is always a time lag between the rise in production costs and the rise in the price level. This time lag brings rich profits to the business classes. Moreover, the stocks and inventories of businessmen invariably go up in value because of the constantly rising price level under the impact of inflation. The business classes, thus, make all-round gains during a period of inflation. The fact of the matter is that the flexible income groups, such as, businessmen, merchants and traders are always the gainers in a period of inflation while the fixed-income groups, such as, workers, salaried employees, teachers, pensioners, etc., are always the losers on account of the inflationary rise in prices. Inflation is always unjust. It is like a steeply regressive tax. Inflation throws the economic burden on the shoulders of those sections of the community who are the least able to bear it.

The concrete effects of inflation on various groups of society are as follows :

(1) *Debtors and Creditors.* During inflation, debtors are generally the gainers while the creditors are the losers. The reason is that the debtors had borrowed when the purchasing power of money was high and now return the loans when the purchasing power of money is low due to rising prices. In other words, the debtors while repaying their debts return less purchasing power to the creditors than what they had actually borrowed. Since the creditors receive less in *real terms,* they are the losers during inflation.

(2) *Wage and Salary Earners.* Wage and salary earners mostly suffer during inflation because wages and salaries generally do not rise in the same proportion in which the cost of living rises. Then there is the time lag between the rise in the cost of living and the rise in wages and salaries. If the workers and salary earners are well-organized into powerful trade unions, they may not suffer much during inflation, but if they are unorganized or ill-organized, as they generally are, they may suffer much as their wages and salaries may not increase at all or may not increase in the proportion in which the cost of living increases.

(3) *Fixed-income Groups.* The fixed-income groups are the hardest hit during inflation because their incomes, being fixed, do not bear any relationship with the rising cost of living. Persons who live on past savings, pensioners, interest and rent receivers suffer most during inflation as their incomes remain fixed while the prices soar high. Inflation, it is said, is also a killer of older, retired people who, with the advent of winter, find their pensions inadequate to buy fuels with their existing fixed pensions.

(4) *Entrepreneurs.* Inflation is a boon to the entrepreneurs whether they be manufacturers, traders, merchants or businessmen, because it serves as a tonic for business enterprise. They experience windfall gains as the prices of their inventories (stocks) suddenly go up. They also gain because their costs do not go up as rapidly as the prices of their products. The costs of labour, raw materials and equipment, etc. do not catch up with the rise in prices of products. Inflation converts the entrepreneurs into 'profiteers' who put the community to ransom through their profiteering and hoarding activities.

(5) *Investors.* Investors are generally of two types : (i) investors in equities (shares), and (ii) investors in fixed interest-yielding bonds and debentures. Inflation bestows favours on the former and is rather harsh on the latter. Dividends on equities increase with the increase in prices and corporate earnings and as such, the investors in equities are favourably affected. Incomes from bonds and debentures, however, remain fixed and as such, investors in them are adversely affected. The small middle-class investors generally invest in fixed interest-yielding bonds and securities and therefore, have much to lose during inflation. Frequently, they find their savings largely, if not completely, wiped out as a result of the depreciation in the value of money. The rich-class investors, on the other hand, invest in equities on which the dividends go up during inflation and are thus beneficially affected.

(6) *Farmers.* Farmers are generally the gainers during inflation. The prices of farm products go up while the costs incurred by them (the farmers) do not go up to the same extent.

Further, there is generally a time lag between the rise in prices and the increase in costs. Moreover, the farmers are generally debtors and can repay their debts during inflation in terms of less purchasing power. It should, however, be remembered that small farmers do not gain as much from high prices as the big farmers do, because the former do not have a considerable surplus to dispose of in the market.

Thus, inflation redistributes wealth and income in such a manner as to injure the interests of consumers, creditors, salary and wage earners, fixed-income groups, small investors, and to favour businessmen, merchants, traders and farmers. Socially, inflation is unjust and inequitous. It transfers wealth to those sections who have already too much of it.

Non-economic Consequences of Inflation

It needs hardly be said that inflation has far-reaching social and political consequences for society. As already pointed out above, inflation is socially unjust and inequitable for society, because it redistributes income and wealth in favour of those classes and sections who are already affluent and well-off. This creates a sense of grievance and heart-burning in those sections of society which are adversely affected by inflation. This naturally leads to social conflict in society which can have very serious political consequences for the country in question. Besides creating political instability, inflation also deals a serious blow to business morality and ethics. The lure of quick profits results in a serious deterioration in the quality of products, besides tempting the businessmen to resort to adulteration and other anti-social tactics to boost up their profits. The general morality of the people in the country also suffers a serious decline with the resulting all-round corruption in the country. This leads to general discontentment in the public which may result in loss of faith in the integrity and honesty of the government. This discontentment very often creates an explosive political situation, preparing the ground for the establishment of a fascist regime in the country. It is pointed out that Hitler's rise to power in Germany was the direct outcome of the postwar inflation of the 'twenties. Inflation, thus, not only disrupts the smooth functioning of the economy but it also prepares the ground for social and political upheavals.

Apart from these general evils, inflation poses a serious danger to underdeveloped countries. As is well known, an underdeveloped country needs huge capital resources for its speedy economic development. But inflation, by discouraging savings, slows down the process of capital accumulation in the economy. Inflation not only reduces domestic capital accumulation, it also discourages the inflow of foreign capital into the country. With reduced capital resources, an underdeveloped country finds it difficult to step up its economic development. Inflation also discourages production by tempting the businessmen to resort to speculation because speculative activities bring them rich dividends than productive activities.

Need for Action

The above study of inflation and its harmful consequences serves to emphasize the need for adopting a prompt and effective anti-inflationary policy on the part of the government. As pointed out by Prof. Kurihara, the consequences of following a policy of *laissez-faire* with respect to persistent inflation would be dangerous indeed. Every inflationary boom, left unchecked, has within itself the seeds of a pending depression. An uncontrolled inflation soon sets in motion certain forces which, if unchecked, would land the economy into a serious slump with all the consequences flowing from it. Let us now analyse those deflationary forces which inevitably accompany an inflationary boom at its height.

(1) *Fall in Consumer Demand.* An uncontrolled inflationary boom invariably results in a decline in aggregate consumer demand for two reasons. *Firstly,* under the impact of inflation, the distribution of income and wealth undergoes a change in favour of the rich and against the poor. This shift in money income from the poor (with a high propensity to consume) to the rich (with a low propensity to consume) adversely affects consumer demand. *Secondly,* the adverse psychological effect of reduced *real income* also serves to depress the demand of the consumers. A serious reduction of real income automatically induces a cautious attitude on the part of consumers who now curtail their demand for consumption goods to the minimum, consistent, of course, with the maintenance of health and working efficiency. The demand for durable consumer goods receives a sharp setback and adversely affects not only the consumer goods industries concerned directly, but also the connected capital goods industries. As a consequence, the consumer demand may fall too low to permit the absorption of the entire output. This may usher in the much-dreaded slump.

(2) *Fall in Investment Demand.* An uncontrolled inflationary boom invariably results in a decline in investment demand. *Firstly,* during inflation owing to the rosy conditions prevailing in business circles, more investment might take place than is warranted by the needs of the situation. This overinvestment coupled with a reduction in consumer spending soon sets in motion certain forces which increase business uncertainty and diminish profitable investment opportunities in the future. As a consequence, anticipatory purchases of inventories (stocks) receive a setback. *Secondly,* the price-wage spiral accompanied by a sharp decline in consumer spending breeds additional uncertainty and spreads pessimism. Yet businessmen refuse to reduce prices in response to falling consumer demand or to accept lower profit margins with the result that markets weaken, giving rise to a recession in income, output and employment.

(3) *Fall in Foreign Demand.* An uncontrolled inflationary boom will also invariably lead to a decline in the demand for the goods of the country in foreign lands. This decline in foreign demand may be due to the too high prices of exported goods owing to domestic price inflation. The decline in foreign demand unless offset by a corresponding increase in domestic demand, will have the effect of reducing output and employment in export industries, with a spreading impact on the entire economy of the country concerned. A decline in foreign demand will contribute to a depression of domestic business activity *via* the reverse operation of the foreign trade multiplier.

The above discussion, thus, highlights the necessity of quick, prompt and effective action on the part of the government to check and control the inflationary boom before it is too late, failing which it shall soon degenerate into a slump accompanied by mass unemployment and economic distress.

Antiinflation Policy

Our above discussion of inflation suggests three lines of action to check and control an inflationary boom, namely, (1) monetary measures, (2) fiscal measures, and (3) other measures. We shall discuss the monetary measures first.

(1) *Monetary Measures.* These measures are adopted by the central bank of the country and include such steps as an increase in rediscount rates, sale of government securities in the open market, an increase in reserve ratios and adjustments in selective controls to arrest an inflationary credit boom. Each of these steps has its own limitations, though it can be said that monetary measures are more effective in checking an inflation than in curbing a depression.

(a) *Increased Rediscount Rates.* To curb inflation, the central bank generally increases the rediscount rates. An increase in rediscount rates increases the cost of borrowing funds for business and consumer spending and, thus, discourage excessive activity based on borrowed funds. The whole thing happens in this manner. An increase in rediscount rates leads to an increase in bank rates (i.e., the interest rates charged by the commercial banks), because there is a definite relationship between the two. An increase in bank rates tends to discourage borrowings by businessmen and consumers from banks resulting in a fall in the intensity of inflationary pressures in the economy. But the increase in rediscount rates as a weapon to check an inflationary boom has its limitations too. *Firstly,* if the bank rates (i.e., interest rates on loans charged by commercial banks) do not rise *pari passu* with the rise in rediscount rates, there will be no decline in the business and consumer borrowing, and hence, the inflationary pressures will continue even though the rediscount rates have been raised. *Secondly,* the effectiveness of higher rediscount rates as an anti-inflationary weapon shall be considerably undermined if the commercial banks have an easy access to additional reserves. For example, the commercial banks which are in possession of large amounts of short-term government securities can increase their reserves by selling some of those securities to the central bank or by converting the maturing securities into cash. Instead of borrowing from the central bank at higher rediscount rates, the commercial banks might prefer to sell their low-yield securities during inflation. *Thirdly,* an increase of rediscount rates will fail to check inflation if non-bank holders (e.g., insurance companies, etc.) of government securities were to convert their holdings into cash. This conversion of non-bank holdings into cash would have the effect of increasing the velocity of money consequent upon increased cash balances. At a time of rising prices and falling value of money, there is a strong temptation on the part of holders of fixed income yielding assets to convert them into cash.

(b) *Sale of Government Securities in the Open Market.* Another method to check the inflationary boom is to resort to sales of government securities to the public by central bank. As the buying public purchases and pays for those government securities, the commercial banks' reserves with the central bank are correspondingly reduced and they are obliged to adopt a *restrictionist* credit policy in relation to business requirements. This process helps in creating *tight* money conditions in the market, and thus arresting the further growth of the inflationary boom.

But the sale of the government securities as an anti-inflationary weapon is also subject to limitations. *Firstly,* this policy may be rendered ineffective if the commercial banks are able to increase their reserves by selling their stocks of government securities to the central bank. Further, the non-bank holders of government securities may also, in the absence of other buyers, sell them to the central bank and deposit the proceeds with the commercial banks. The deposits and reserves of the commercial banks are thus increased, neutralizing the effect of sale of government securities by the central bank. *Secondly,* this policy may also be offset by increased borrowings from or by increased sales of treasury bills to the central bank by the commercial banks. *Thirdly,* the import of gold may also offset the anti-inflationary effect of this policy to a certain extent.

(c) *Higher Reserve Requirements.* An increase in reserve requirements of the member-banks also serves as an anti-inflationary weapon during inflation. It absorbs the excess reserves of the banking system and thus prevents them from forming a basis for further credit expansion. If, for example, the central bank raises the legal reserve requirements from 20 to 25 per cent of the demand deposits, the member-banks shall now be required to keep larger reserves with the central bank and, to that extent, their power to create credit shall become limited.

Higher reserve requirements as an anti-inflationary weapon are also subject to limitations. *Firstly,* if the commercial banks happen to have very large excess reserves, even the raising of reserve requirements may not significantly curtail their power to create credit. *Secondly,* the ability of commercial banks to increase or replenish their reserves through sale of government securities may render higher reserve requirements ineffective to check credit expansion. *Thirdly,* a large inflow of gold on account of the existence of an export surplus will also, by increasing the member-banks' reserves, offset the anti-inflationary effect of higher reserve requirements.

(d) *Consumer Credit Control.* This is a device which is generally introduced during inflation to curb excessive spending on the part of consumers. As is well known, in advanced countries instalment purchasing plays an important role in consumer spending. Most of the durable consumer goods, such as, radios, television sets, washing machines, etc., are purchased by the consumers on instalment credit. During an inflationary boom, facilities for instalment buying are reduced to the minimum to curtail excessive spending on the part of consumers. This is done (i) by raising the minimum initial payment on specified goods, (ii) by extending the application of consumer credit control to a large number of goods, and (iii) by decreasing the length of the payment period, etc.

(e) *Higher Margin Requirements.* Like the consumer credit control, this is also a method of selective credit control. The central bank in its pursuance of an anti-inflation policy may raise the margin requirements to higher levels. As is well known, every commercial bank before granting a loan to a businessman against collateral security keeps a certain specified margin, say, 20 per cent or 30 per cent. For example, if the value of security offered by the businessman is Rs. 10,000/- and the bank keeps a margin of 20 per cent, then it means that it will advance not more than Rs. 8,000/- to the businessman. This margin is necessitated by the possibility of a fall in the value of the security. Now, in order to discourage excessive credit on the part of member-banks, the central bank may direct them to keep higher margins, say 50 per cent instead of 20 per cent. In that case, the member-bank shall not be able to lend more than Rs. 5,000/- against security of the value of Rs. 10,000/- The higher the margin requirement, the lower the amount of the loan that the borrower can obtain from the bank. Thus, higher margin requirements have the effect of checking undue monetary expansion.

2. *Fiscal Measures.* Fiscal policy is now recognized as an important instrument to tackle an inflationary situation. The major anti-inflationary fiscal measures are the following :

(a) *Government Expenditure.* During inflation, as is well known, effective demand increases far too much due to unregulated private spending. The increased private expenditure presses heavily against the limited supply of goods and services available in the market. To counteract increased private spending, the government should, at such a time, reduce its own expenditure to the minimum extent possible to help limit the aggregate demand. As against this, it may, however, be said that it is not so easy to reduce government expenditure particularly in the war period when any decrease in military expenditure is simply unthinkable. *Secondly,* any drastic cut in government expenditure to cure inflation may actually land the economy in a slump. *Thirdly,* this policy of a cut in government spending may actually come into clash with a long-range public investment programme. So, a policy of reduced government spending, howsoever important, has its limitations in actual practice. And yet this policy appears to be indispensable to curb inflationary boom.

(b) *Taxation.* Taxation acquires increased importance as an anti-inflationary weapon during an inflationary boom. The problem during inflation is to reduce the size of disposable income in the hands of the general public in view of the limited supply of goods and services in the market. It is, therefore, necessary to take away the excess purchasing power from the public in the form of taxes. The rates of existing taxes should be steeply increased while new taxes should be imposed on commodities and services so as to leave less money supply with the public to spend. Perhaps the best anti-inflation tax is personal income tax with steep rates and high surcharges. This would reduce the spendable income in the hands of the public, and thus, help to curb inflationary pressures. In general, anti-inflation measures must aim at reducing current incomes in the hands of those sections which, if not taxed, would contribute to raising the price level.

While taxes, direct as well as indirect, should be raised to the maximum limits possible to reduce spendable incomes, tariffs (i.e., customs duties) on imports should be lowered down as much as possible to encourage increased imports to step up the supply of goods at home to absorb the increased money supply in the economic system. The tariffs on necessities of life and other items in short supply should be particularly reduced so as to contain inflationary pressures in the economic system by increasing the supply of goods and services.

Care should, however, be taken that while increasing taxation to curb inflationary pressures, money incomes are not so much deflated as to provoke a recession in the economy.

(c) *Public Borrowing.* Public borrowing is another anti-inflation weapon which is often utilized to contain inflationary pressures in the economy. The object of public borrowing is to take away from the public excess purchasing power which, if left free, would surely exert an upward pressure on the price level in view of the limited supplies of goods and services in the economy. Public borrowing may be *voluntary* or *compulsory.* Ordinarily, public borrowing is voluntary, left to the free will of the individuals. But voluntary borrowing has one disadvantage, and that is, it does not bring to the government sufficient amounts to have really effective impact on the inflationary pressures. It, thus, becomes essential in due course of time to resort to *compulsory saving* or *compulsory borrowing* from the public (also known as *deferred pay*). According to this plan, a certain percentage of the wages or salaries is compulsorily deducted in exchange for savings bonds which become redeemable after a few years. This has the effect of blocking purchasing power for a definite period so as to relieve pressures on the limited supplies of goods and services. It has also the added advantage of releasing blocked purchasing power at the first symptom of a recession in business activity. Compulsory borrowing was resorted to in Great Britain during the Second World War at the instance of Keynes to fight inflation. It was adopted by India also in 1963 to check inflation, though under mounting public pressure it had to be withdrawn by the Government of India. Compulsory borrowing suffers from two limitations. *Firstly,* it involves the use of compulsion which is generally unpalatable to the public. *Secondly,* it results in discontent if applied to those sections of the community which are not in a position to contribute to this scheme in view of their limited pay packets. As such, the government needs to exercise a good deal of caution in implementing compulsory borrowing schemes.

(d) *Debt Management.* The existing public debt should be managed in such a manner as to reduce the existing money supply and prevent further credit expansion. Anti-inflation debt management usually requires the retirement or repayment of bank-held debt out of a budgetary surplus. The idea is that the government securities held by commercial banks should be retired by the government out of a budgetary surplus. This would check the power of commercial banks to encash their securities and add to their reserves for the purpose of credit expansion. There is, however, one snag here. At a time of inflation, despite its best efforts, the government may not succeed in having a budgetary surplus. Due to the excessive increase in expenditure, the government may actually be faced with a *deficit* budget. In that case, the government can adopt another method to retire bank-held debt. It can retire this debt by sale of bank-ineligible bonds to nonbank investors like insurance companies, savings banks, individuals, etc. This will have the effect of taking away *spendable money* from the public and, thus, contribute to a lessening of pressure on the limited stock of goods and services available in the market. But this method is also subject to limitations. It would be rendered ineffective if the nonbank investors were unwilling to give up spendable money in exchange for government bonds. It would also prove futile if the nonbank investors utilized, for purchasing government bonds, idle funds which would not have been spent at all.

(e) *Overvaluation.* An overvaluation of domestic currency in terms of foreign currencies will also serve as an anti-inflationary measure in three ways. *Firstly,* it will discourage exports and thereby result in an increased availability of goods and services in the domestic market. *Secondly,* by encouraging imports from abroad, it will add to the domestic stock of goods and services and, thus, absorb the excessive purchasing power in the economy. *Thirdly,* by cheapening the prices of those foreign materials which enter domestic production, it will help in checking an upward cost-price spiral. Overvaluation as an anti-inflationary weapon also suffers from limitations. For example, if other countries are also suffering from inflation, then the country concerned shall have to overvalue its currency considerably to neutralize the inflationary effect of the rising cost of imports. But a good deal of caution needs to be exercised if overvaluation is to be used as an anti-inflationary weapon, because its deflationary implications for the balance of payments may be serious.

3. *Other Measures.* Among the other anti-inflationary measures may be included such things as, (a) an expansion of output, (b) wage policy, and (c) price control and rationing. They can be used to supplement the monetary-fiscal measures undertaken to contain inflationary pressures.

(a) *Expansion of Output.* Increased production is the best antidote to inflation because, as pointed out above, the inflationary gap arises partly due to the inadequacy of output. But it becomes rather difficult to increase output at a time of inflation because of the full utilization of resources. The productive resources are already fully employed. How to get additional productive resources to increase output ? It is suggested that if it is not possible to increase output as a whole, steps should be taken to increase the output of those goods which seem to be extremely sensitive to inflationary pressures by shifting productive resources from the less inflation-sensitive goods. In other words, a reallocation of productive resources is suggested to step up the output of inflation-sensitive goods, such as, food, clothing, housing and other essential consumer goods. If the prices of these essential consumer goods are kept down through expansion of output, it will greatly help the authorities to curb inflationary pressures in the economy. Again, during an inflationary boom, factor prices (i.e., prices of raw materials and labour) may rise up with an increase of output, thus, adding more fuel to the inflationary fire. Efforts should, therefore, be made by the authorities to keep the factor prices in check. Some selective controls may have to be devised to prevent a rise in monopoly factor prices. It is also suggested by certain quarters that output should be increased by making the workers work for longer hours in factories. Trade Unions are, however, sure to resist this unless and until it is accompanied by "overtime allowances". Even if output is increased through payment of overtime allowances, that would be no solution because the overtime allowances paid to workers would add to the money income stream of the community unless, of course, the overtime allowances are either taxed away or taken in the form of loans by the government. A more feasible suggestion would be to increase output through encouraging technical innovations in industry. It is also essential at a time of inflation to maintain industrial peace in the country by reducing strikes and lockouts to the minimum. It may not be so easy to ensure perfect industrial peace, because during an inflationary boom the workers are generally discontended and their grievances mount with the rising cost of living. Attempts should, however, be made to devise some labour management machinery which may help to keep industrial strife to the minimum. Labour grievances should be attended to soon and in time to avoid work stoppages which are bound to inhibit production at a critical time. Lastly, it is also suggested that during inflation the government may adopt a liberal import policy to offset the domestic shortage of goods. As a matter of policy, the government should import inflation-sensitive and essential goods in exchange for export of non-essential and inflation-insensitive goods. If the balance of payments position of the country does not permit liberal imports, the government may even have to arrange short-term credits from international agencies, like the I.M.F. for this purpose.

(b) *Wage Policy.* During an inflationary boom, wages cannot be left free to chase prices upward. They have to be controlled so as to contain inflationary pressures in the economy. Wage increases may be allowed to workers only if their productivity, i.e., output per worker, increases. If this principle is observed, higher wages shall not lead to higher unit costs, and hence, to higher unit prices. But if the wages in a particular industry are already sub-standard, they may be got raised without increasing the prices of goods produced, i.e., by reducing the profit margins of the producers. It is important for the government at such a time to keep down the cost of living through its anti-inflation programme, for if it fails to do so, the workers' unions would be perfectly justified in asking for higher wages from their employers, and the government should let them do so. Even then the government can tax away or borrow a part of money wages as a part of its anti-inflation programme. But one thing is, however, clear. Complete wage freeze is rather difficult to achieve during peacetime inflation, because trade unionism is a powerful force now in advanced economies. This is rendered still more difficult by the fact that wages are not only costs to employers but also incomes to the workers, and any step taken in the direction of a *wage freeze* may give rise to uncontrollable deflationary movements in future.

(c) *Price Control and Rationing.* Price control of essential consumer goods was resorted to on a fairly wide scale in various countries of the world to fight inflation during and after the Second World War. The object of price control is to lay down the upper limit beyond which the price of a particular commodity would not be allowed to rise. Anyone selling the concerned commodity above the legally fixed price runs the risk of being prosecuted by the State. To ensure the successful functioning of price control, two conditions shall have to be satisfied. *Firstly,* the government should have under its control adequate stock of the commodity concerned. Fixing the price without having adequate stock of its own will surely result in failure. *Secondly,* the demand for the concerned commodity should be controlled through rationing, failing which, taking advantage of the fixed price, the richer sections shall be able to buy a major portion of the available stocks.

Keynes was not favourably inclined to price control on the ground that it failed to bring about equilibrium between purchasing power and the available output. It increases the pressure of consumption and results in shortages and queues. He, therefore, wanted to deal with the situation by reducing the volume of purchasing power in the hands of the public *via* taxation and forced savings, and then to allow the public to exercise a free choice in the purchase of consumer goods. Price control, in his opinion, led to loss of consumer's freedom.

Despite this, price control and rationing seem inevitable as weapons to contain inflationary pressures in the economy. They seem to be indispensable to control and check the prices of at least essential goods during inflation, But there cannot be adopted a general policy of price control and rationing in view of the tremendous administrative difficulties in carrying it out in actual practice.

RELATIONSHIP BETWEEN INFLATION AND UNEMPLOYMENT – THE PHILLIPS' CURVE

The Phillips' curve acquires considerable significance in the context of our analysis of an inflationary situation. The curve pinpoints the need of having a high percentage of unemployment in an economy if a non-inflationary price stability is to be achieved. Actually, the Phillips' curve traces the relationship between the rate of money wage increase and the rate of unemployment in the

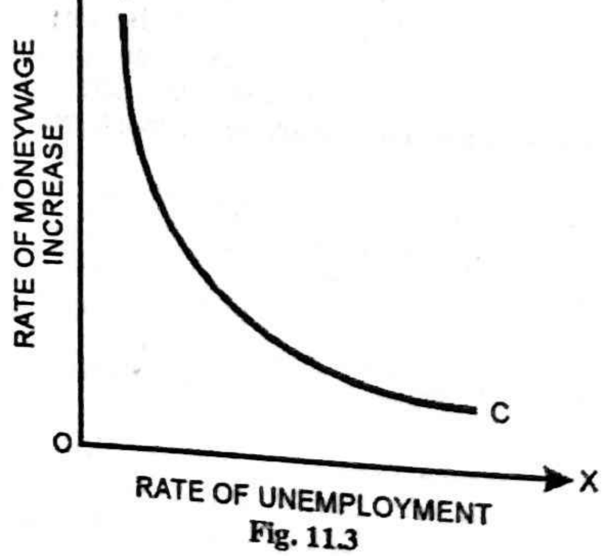

Fig. 11.3