Business Cycles
Or
Trade Cycles

A Business Cycle refers to oscillations in aggregate economic activity, particularly in employment, output, income etc. The oscillations arise out of the inherent contraction and expansion of the elements which energize the economic activities of the nation. The dynamic forces operating in a free economy create various kinds of fluctuations in the tempo of economic activity resulting in fluctuations in gross national product, the index of industrial production, the level of investment and employment. The fluctuations are periodical, differing in intensity and changing in its coverage. These fluctuations are most marked in those countries which had developed through ' trade ' or ' business ' rather than agriculture. Hence, it is called ' Business Cycle ' or ' Trade Cycle '.

The cyclical fluctuation is termed as ' Trade Cycle ' by the British economists, while the American economists use the term ' Business Cycle '. But Prof. Lee prefers to use the term ' Economic Cycle ' as the fluctuations are not limited to business realm only. It affects the entire economic system, particularly output, employment, income and prices.

Unit - (4)

Trade cycle

1. Meaning

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2. Definition

R.A. Gordon defined business cycle as consisting of "recurring alteration of expansion and contraction in aggregate economic activity, the alternating movements in each direction being self reinforcing and prevailing virtually all parts of the economy."

and level of employment are high or rising, ... resources or unemployed workers, or very few of either." (The important features of upswing are : (a) Rising prices; (b) Large volume of production; (c) High level of employment and job opportunities; (d) Rising interest rates; (e) Bullish trends in stock exchange; (f) Expansion of credit and borrowing; (g) Rise in wages, profits and income ; and (h) Overall business optimism.)

(ii) Recession :

The turning point from boom condition is called recession. Generally, the failure of a company or a bank, bursts the boom and brings a phase of recession. Businessmen ...

dullness. Liquidity preference of the people rises and money market becomes tight. " A recession, once started tends to build upon itself such as forest fire, once underway, tends to create its draft and gives an impetus to its destructive ability."

(iii) Depression :

Recession is only a turning point rather than a phase. When this deepens, it culminates into depression. The features of depression are just the reverse of prosperity. During depression the level of economic activity becomes extremely low. Prices fall, profit margins decrease, firms incur losses and closure of business becomes a common feature and the ultimate result is unemployment. Interest and wages also fall. The agricultural class and wage earners would be worst hit. There is alround pessimism. Banking institutions have to advance money to businessmen. Depression is the worst phase of the business cycle.

(iv) Recovery :

After a period of depression, recovery sets in. This is the turning point from depression to revival towards upswing. It begins with the revival of demand for capital goods. Autonomous investments boosts the activity. New blood, in the form of expansion of money and credit is injected in the money stream of the economy and the income of the people goes up. The demand slowly picks up and in due course the activity is directed towards the upswing with more production, profit, income, wages and employment. Recovery may be initiated by innovation or investment or by government expenditure, i.e., autonomous investment.

It should be noted that the various phases of a cycle rarely display smoothness and regularity. One phase may not actually follow the other in the same manner as described above. The length of each phase is neither regular nor well defined.

The different phases of the business Cycle are illustrated in the Figure 6.1.

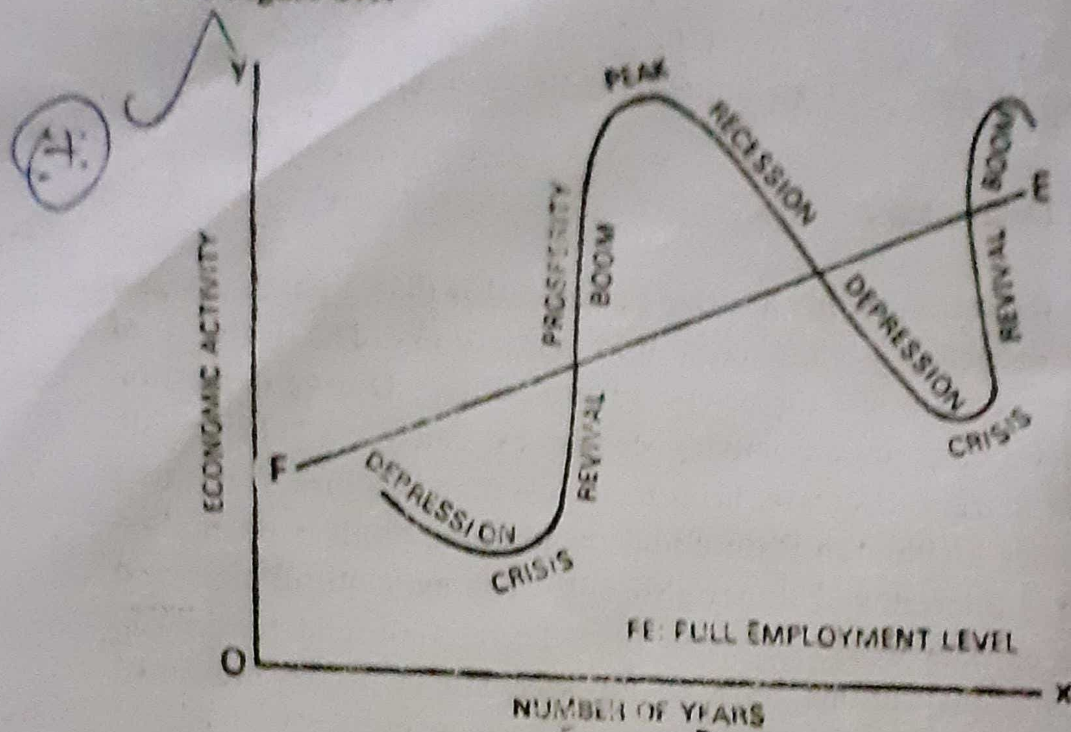


Figure 6.1-Phases of Business Cycle

TYPES OF CYCLES

American Economists try to distinguish between (1) Major business cycle; and (2) Minor business cycle. This is considered with reference to the impulse of the movement and the duration of the entire process. Hansen made a study of 73-year period (1865-1938) of U.S.A. and concluded that there were 18 business cycles in U.S.A., 7 major and 11 minor. According to him, a major cycle ranges from 6 to 13 years calculated from trough to trough. A major cycle may also contain one or more minor cycles. On the other hand, a minor cycle ranges between 2 to 5 years from trough to trough. This occurs mainly due to inventory adjustments to compensate for errors or difficulties. Opinions vary regarding the length of major and minor cycles. A business cycle varies in duration and intensity. The normal course of business cycle would be interrupted by war. The world war of 1939-45 came as a blessing in disguise to the worldwide depression.

Unit - 5 Theories of Trade cycle

1. Schumpeter
2. Hawtrey
3. Keynes
4. Hicks
5. Hayek's Cobb Web

(i) Hawtrey's Theory (or) Monetary theory

According to Hawtrey, "Trade cycle is purely a monetary phenomenon". Changes in the flow of money are exclusively responsible for the changes in economic activity, which in turn create boom or depression.

If banking institutions reduce the rate of interest, businessmen will be induced to borrow more to expand their business activity. If the rate of interest is increased, borrowings get reduced and as such it reduces the business activity.

G. SCHUMPETER'S INNOVATIONS THEORY

Joseph Schumpeter has propounded a trade cycle theory in terms of innovations. An innovation may consist of a new product, or the introduction

- J.R. Hicks: *A Contribution to the Theory of the Trade Cycle*, p. 93.

Criticism

First, Schumpeter's theory is based upon two assumptions—full employment or resources in the economic system and financing of innovation by means of bank loans. If an economy is working below full employment, the introduction of an innovation need not causes diversion of factors of production from older industries and thus cause prices of goods to go up or their supply to decline. Again, innovation is generally financed by the promoters themselves (usually firms finance by drawing upon their development reserves kept for the purpose) and hence, resort to bank finance does not arise at all.

Secondly, innovations may be regarded as one cause for business fluctuations but not the only cause, as there are many other causes also. As Hayek correctly points out, innovations alone cannot explain the phenomenon of trade cycles without a substantive monetary explanation.

We have described many theories of business cycles and there are many more. But none of the theories affords a complete explanation of the causes of trade cycles. The reason for this is that the trade cycle is not the result of any one single factor but is due to multiplicity of factors of which sometimes one and sometimes another becomes dominant.

of a new method of production, such as through a new machinery, or through a new method of organization of the factors of production, or the opening of a new market for the product, or the development of a new source of raw materials, or a substantial change in the organization of a business, and so on; in other words, an innovation in anything which is introduced by a firm or an industry to change the supply and/or demand conditions. An innovation may be sufficient to cause changes in the data or expectations of entrepreneurs and through them in their economic and business calculations. These changes may render the cost of production to change rapidly and continuously and may shift the demand curve continuously in such a manner that the final stage becomes indeterminate. Any innovation, thus, causes disequilibrium in the system making it necessary for the economic system to readjust itself at some new equilibrium position. Thus, the unrhythmic movements of an economy are explained by Schumpeter by reference to innovations.

In capitalistic economies, particularly the course of economic activity seldom runs smooth. Normally a period of prosperity is followed by a period of adversity or depression or *vice versa*. Economists have devoted their attention in studying the causes, consequences and the extent of such oscillations in the economic activities of the nations.

Definitions of Business Cycle

Wesley Mitchell stated that " Business Cycles are fluctuations in the economic activities of organised communities. The adjective ' Business ' restricts the concept of fluctuations in activities which was systematically conducted on a commercial basis. The noun ' Cycle ' bars out fluctuations which do not recur with a measure of regularity. "

Prof. Lipsey states as follows : " The irregular and often violent movements of the economy over short periods of time have long occupied the attention of economists. These movements were once commonly known as business cycles or trade cycles, the word cycle suggesting a regular oscillation of good times and bad. At some times and places, these movements have been remarkably regular. "

Keynes defined it as follows : " A Trade Cycle is composed of a period of good trade characterized by rising prices and low unemployment percentage, altering with period of bad trade characterized by falling prices and high unemployment percentage."

R. A. Gordon defined business cycle as consisting of "recurring alternation of expansion and contraction in aggregate economic activity, the alternating movements in each direction being selfreinforcing and prevailing virtually all parts of the economy."

Characteristics of Business Cycle

From the definitions of 'Business Cycle' we can gather the features of business cycle. It occurs periodically in a wave-like manner with varying magnitude. The salient features are :

This theory is only partially true. The psychological factors may help in gathering momentum in the upswing or bring the downswing suddenly. But, the theory does not explain how the boom or slump is initiated. The theory fails to explain as to how a depression starts and how a recovery begins.

(iii) Hawtrey's Theory (or) Monetary Theory:

According to Hawtrey, "Trade Cycle is purely a monetary phenomenon" and natural causes cannot cause permanent depression or prosperity. He has strongly advocated that changes in the flow of money are exclusively responsible for the changes in economic activity, which in turn create boom or depression.

The basic cause of boom or depression is the expansion and contraction of money in the country. According to Hawtrey, changes in the volume of money are brought about by changes in the rate of interest. If banking institutions reduce the rate of interest, businessmen will be induced to borrow more to expand their business activity. If the rate of interest is increased, borrowings get reduced and as such it reduces the business activity. Thus, the change in business activity results due to change in interest rate and the consequent impact on money supply. In short, Hawtrey's theory is just a monetary theory where inflation and depression are created by the rate of interest. The upward phase is brought about by expansion of bank money and velocity of circulation, while the downward phase is due to monetary deflation.

Finance is, no doubt, the soul of industry and commerce; but, this theory holds good only when there is 'Gold Standard' in which the money supply would be rigidly fixed on the basis of gold stock. In the absence of gold standard, the theory has become very weak.

Secondly, in practice, borrowing and investment will not depend on the rate of interest. Expansion and contraction of money alone cannot explain prosperity or depression. If that

be the case, controlling a boom and solving a depression will lend an easy monetary solution of contracting and expanding credit. Though this is one of the causes, this cannot be attributed exclusively for 'trade cycle'.

Thirdly, in modern business, firms adopt the practice of ploughing back their profit and as such expansion or contraction of credit may not pose an important cause in the economy for trade fluctuations.

Finally, Banking institutions can accentuate a boom or intensify a depression, but it cannot initiate it. Like the previous theories, Hawtrey's theory is also partial in explaining the trade cycle.

(iv) Von Hayek's Theory (or) Over-Investment Theory :

Prof. Von Hayek has developed a theory of business cycle on the basis of monetary over-investment and consequent over-production. In this theory, just like Hawtrey's theory, the trade cycle is ascribed to the instability of bank credit; but the ultimate cause is ascribed to production system rather than the monetary system.

According to Hayek, business cycle is the result of over-issue of credit at an artificially low rate of interest, the market rate being lower than the natural rate. Consequently there is over-investment and over-production in the economy. According to the author of this theory, there is a natural or equilibrium rate of interest at which the demand for lonable funds through voluntary savings will be made. At the same time, there is market rate of interest based on demand for and supply of loanable funds in the market. Any disparity *between the two* leads to business fluctuations. A fall in the market rate of interest below the natural rate will lead to more investment and therefore an upward swing takes place. A rise in the market rate over the natural rate will lead to fall in investment and downswing takes place.

The market rate may fall below natural rate, because of an increase in supply, in excess of demand, for investment. This increase in supply of money is brought about by banks lending in excess of the supply of voluntary or real savings to entrepreneurs through whom it eventually reaches the consumers as factor owners. This increased supply of money leads to a spurt of investment activity and capital intensive production takes place. Prices go up and there is diversion of resources to capital goods resulting in reduction of supply of consumer goods. This competition does not continue for a long time. The demand for consumption goods goes up and consequently, prices of factor services go up raising the cost of production of capital goods. This leads to less profit margin and production of capital goods becomes less attractive. Simultaneously, the banking system reduces the credit expansion by raising the market rate above equilibrium rate, causing a fall in investment, abruptly. This starts business depression.

The sum and substance of Hayek's thesis is that alternating stages of prosperity and depression are due to lengthening or shortening processes of production brought about by a change in the money supply, which cause a change in the market rate of interest away from the natural rate of interest. The failure of the banking system to keep the supply of money constant is responsible for business cycle. For this, Hayek's solution is simple. If the supply of bank money is kept constant, making allowance for increase or decrease in velocity of circulation, the problem of trade cycle can be mitigated.

Criticism of this theory :

(a) Hayek over-emphasises the rate of interest as the determinant of investment; (b) He has totally ignored the role of technology and innovation in influencing investment; and (c) The solution offered by Hayek is very rudimentary.

(v) Keynes' Theory of Business Cycle :

Keynes did not formulate a separate theory for this. But, he has given it as a by-product of his main theory of Income and Employment propounded in the 'General Theory'.

According to Keynes, trade cycle may be regarded "as being occasioned by a cyclical change in the marginal efficiency of capital though complicated and often aggravated by associated changes in the other significant short period variables of the economic system." Thus, the primary cause of cyclical fluctuations is the change in the volume of investment caused by the cyclical fluctuations in the marginal efficiency of capital, i.e., changes in the rate of profit on current investment outlay and also due to changes in the rate of interest.

By Marginal Efficiency of Capital, Keynes refers to the expected returns from a given volume of investment. The rate of interest is a function of the quantity of money and the liquidity preference, while the marginal efficiency of capital depends upon (a) Supply price of capital assets; and (b) the expected profits, i.e., yield from such capital assets.

The substance of Keynes' theory is that an initial investment outlay will generate multiple amount of income and employment under the influence of the multiplier and a contraction of investment will similarly lead to multiple contraction of income and employment. But, whether a fresh investment will be undertaken or not, will depend on the marginal efficiency of capital.

Weakness of the theory :

(i) According to Keynes, MEC forms the vital factor in guiding the investment decisions of entrepreneurs. But, this factor depends on the final analysis of the entrepreneur's anticipation of future prospects, i.e., upon the psychology of the investors. In such a case, Keynes' theory of trade cycle approaches very near to Psychological theory.

(ii) Keynes' theory expresses that a sizable fall in the rate of interest can do something to revive confidence and it will be helpful in investment. But in actual practice, rate of interest does not have any influence on investment.

(iii) The theory does not throw any light on the periodicity aspect of the trade cycle.

(v) Hick's Theory of Trade Cycle :

Prof. J. R. Hicks in his book " A contribution to the theory of trade cycle " has put forward an explanation of trade cycle by combining the concept of multiplier and acceleration with autonomous and induced investments. According to him, " the theory of multiplier and the theory of accelerator are the two sides of the theory of fluctuations, just as the theory of demand and the theory of supply are two sides of the theory of value."

Autonomous investment is independent of variations in output. Hicks assumes that autonomous investment goes on increasing at a regular rate in a progressive economy. Corresponding to the volume of autonomous investments, there will be a certain precise level of money income; the ratio of income to investment being determined by the multiplier and acceleration effects. Money income, thus, will grow at the same rate as the volume of autonomous investment.

Induced investment is that investment which is induced by fluctuations in output, that which responds to changes in output. If for example, an industry expands due to an expansion of demand for its output, and if the latter (i.e., expansion of demand) is regarded to be of a permanent character, then the production of increased output would necessitate, in some degree, the expansion of capital stock in the industry. Thus, increase in output induces investment (i.e., Acceleration principle).

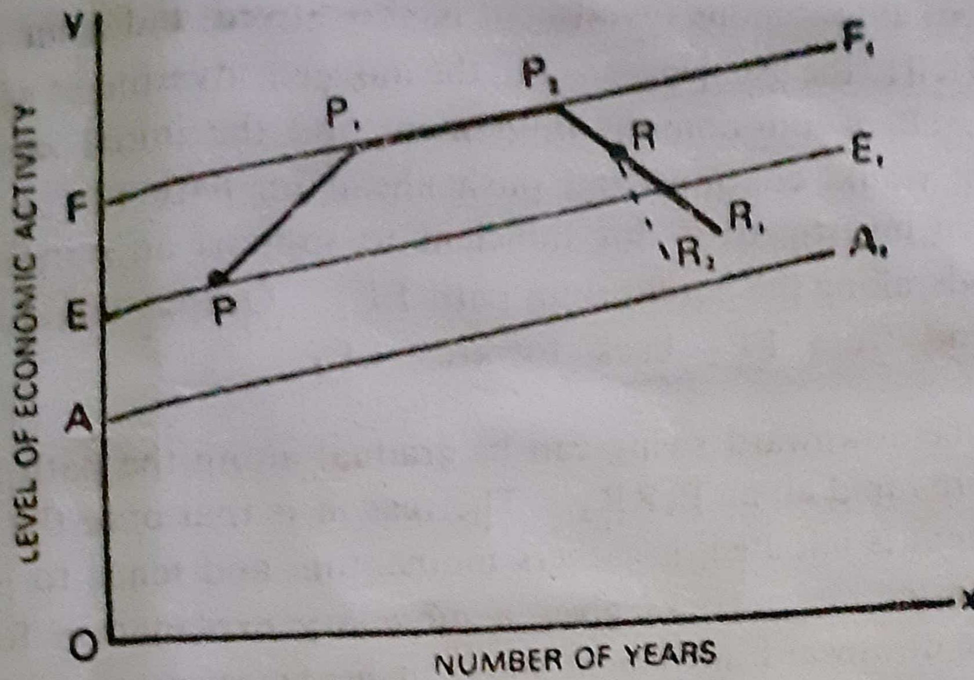


Figure 6.2-Hicks Process of Cyclical Fluctuation

Figure 6.2 illustrates the influence of two types of investment on the level of income and cyclical fluctuations. In the figure, X axis represents the number of years, and the Y axis, the level of economic activity. Line AA_1 represents the progress of autonomous investment over the years. This shows the uniform rate of growth overtime. Line EE_1 represents income (output). In fact, the distance between AA_1 and EE_1 will depend upon the combined influence of the multiplier and acceleration effects. Finally FF_1 represents the level of full employment or full employment ceiling.

The Process of Cyclical Fluctuations is explained as follows : Suppose the economy is at point 'P' and at this point certain invention is introduced. Autonomous investment will burst and the induced investments will push output, employment etc., upward along the path PP_1 in the figure away from EE_1 line. The upward trend touches full employment ceiling at P_1 and it cannot rise any further. At the most, the expansion can *creep along* the ceiling, but that too only for a limited time. "When the path has encountered the ceiling, it must (after a little) bounce off from it and begin to move in a downward direction." This downward swing, according to Hicks, is inevitable. The initial

burst of autonomous investment is short-lived and after a stage, it will fall to the usual level. But the induced investment which was the result of autonomous investment and the initial increase in output would continue and push ahead on path PP_1. But the induced investment is not sufficient to support an output which expands along the equilibrium path EE_1. Output therefore, will rebound from FF_1 back towards EE_1.

The downward swing can be gradual along the path P_2RR_1 or more rapid along P_2RR_2. The reason is that once the decline in output is initiated, it gathers momentum and tends to proceed at a faster rate. Hicks gives a monetary explanation for this. As the downward movement starts, it becomes increasingly difficult to sell goods and consequently the burden of fixed costs becomes oppressive. Firm after firm becomes bankrupt; liquidity preference records an abrupt rise and reacts adversely on credit conditions. The stringent condition of credit market tends to aggravate the situation.

Drawbacks of Hick's Theory :

(i) Prof. Kaldor points out that the real weakness of the theory lies in using the crude acceleration principle;

(ii) The acceleration effect presupposes the constancy of capital-ouput ratio, but in reality, capital-output ratio is changing.

(iii) The acceleration principle presupposes the absence of excess capacity in capital equipment. But the industries which are subject to cyclical fluctuations are likely to maintain excess capacity in plant and equipment as a normal rule.

(iv) Finally, Hick's explanation is highly mechanical and in practice movements do not take place so mechanically as Hick has portrayed. Particularly, he has failed to emphasise the psychological forces arising out of uncertainities and expectations which play a crucial role in a dynamic capitalistic economy.

1. If there is a very good harvest, then supply will be greater than expected and this will cause a fall in price.
2. However, this fall in price may cause some farmers to go out of business. Next year farmers may be put off by the low price

2. However, this fall in price may cause some farmers to go out of business. Next year farmers may be put off by the low price and produce something else. The consequence is that if we have one year of low prices, next year farmers reduce the supply.
3. If supply is reduced, then this will cause the price to rise.
4. If farmers see high prices (and high profits), then next year they are inclined to increase supply because that product is more profitable.

(supply is price inelastic in short-term)

- A key determinant of supply will be the price from the previous year.
- A low price will mean some farmers go out of business. Also, a low price will discourage farmers from growing that crop in the next year.
- Demand for agricultural goods is usually price inelastic (a fall in price only causes a smaller % increase in demand)

Limitations of Cobweb theory

Rational expectations. The model assumes farmers base next years supply purely on the previous price and assume that next year's price will be the same as last year (adaptive expectations). However, that rarely applies in the real world. Farmers are more likely to see it as a 'good' year or 'bad year and learn from price volatility.

Price divergence is unrealistic and not empirically seen. The idea that farmers only base supply on last year's price means, in theory, prices could increasingly diverge, but

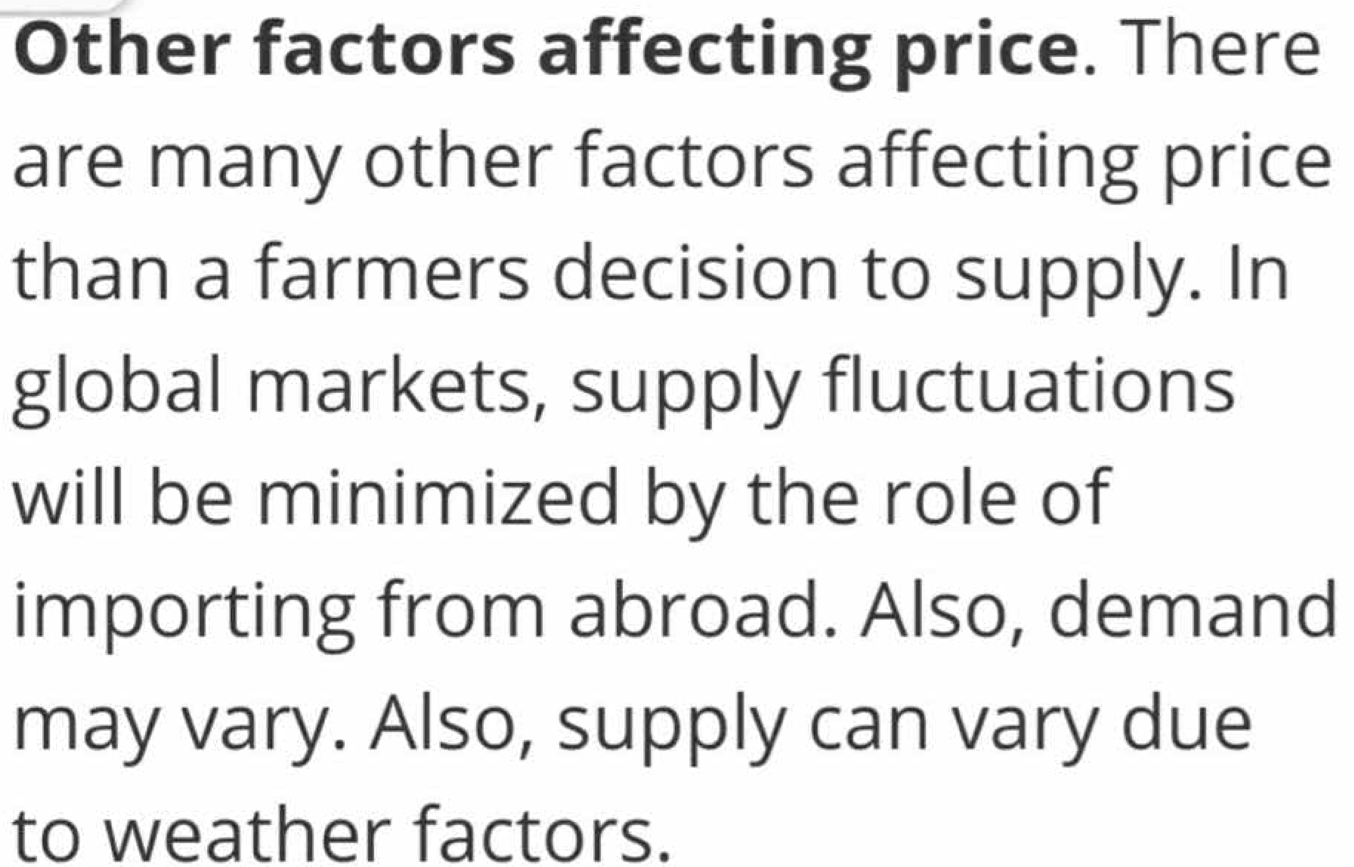
Cobweb theory

Cobweb theory is the idea that price fluctuations can lead to fluctuations in supply which cause a cycle of rising and falling prices.

In a simple cobweb model, we assume there is an agricultural market where supply can vary due to variable factors, such as the weather.

Assumptions of Cobweb theory

- In an agricultural market, farmers have to decide how much to produce a year in advance – before they know what the market price will be. (supply is price inelastic in short-term)
- A key determinant of supply



Other factors affecting price. There are many other factors affecting price than a farmers decision to supply. In global markets, supply fluctuations will be minimized by the role of importing from abroad. Also, demand may vary. Also, supply can vary due to weather factors.

Price divergence is unrealistic and not empirically seen. The idea that farmers only base supply on last year's price means, in theory, prices could increasingly diverge, but farmers would learn from this and pre-empt changes in price.

It may not be easy or desirable to switch supply. A potato grower may concentrate on potatoes because that is his speciality. It is not easy to give up potatoes and take to aubergines.

Other factors affecting price. There are many other factors affecting price than a farmers decision to supply. In global markets, supply fluctuations

As stated, the trade cycle cannot be controlled by a single operation. Following instruments are used to attain the objectives of economic stabilization, particularly for the control of trade cycles, relative price stability and attainment of economic growth:

1. Monetary policy,
2. Fiscal policy,
3. Anti-cyclical budgeting, and
4. Automatic stabilizer (or) Built-in stabilizer.

Let us discuss the same in detail.

1. Monetary policy to control trade cycle

Monetary factors aggravate the operation of trade cycle. Monetary inflation, leading to higher income and profits, strengthens the boom conditions. Similarly, monetary deflation reinforces the downswing in the economic activities leading to depression. So, the monetary policy should be adopted in an anti-cyclical way. During the period of upswing and boom, supply of money and credit should be controlled and regulated.

1. taxation,
2. spending, and
3. borrowing..

These three instruments have to be effectively utilized to control the severity of boom or the difficulties of depression. During the periods of recession and depression, the government should reduce substantially the taxes and leave more money in the pockets of individuals for spending and investment.

The government should stimulate economic activity by initiating public works project. In time of boom, the government should try to mop up extra or the surplus money through attractive borrowing schemes.

The central bank of the country should adopt all or chosen methods of credit control. The weapons of credit control, such as bank rate, open market operations, reserve ratio, etc. should be utilized and to control inflationary tendencies and over-expansion of business activity. In times of depression or signs of recession, expansionary, credit policy should be adopted to mitigate the severity of recession and depression.

2. Fiscal policy

Monetary policy alone may not be sufficient to check the instability created by business cycle. It should be reinforced with suitable fiscal policy. Keynes and others have recommended compensatory finance or compensatory fiscal policy to bring about stabilization of business activity. The three main instruments of fiscal policy are:

3. Anti-cyclical budgeting

The budgetary policy of the government should be in tune with the measures already indicated to combat the instability created by business cycle. During times of depression, a policy of deficit budgeting should be adopted. This will increase the flow of income in the economy. During upswing, surplus budgeting should be adopted. Thus, the budgeting should be done in anti-cyclical method.

4. Automatic stabilizer or Built-in-stabiliser

When fluctuations take place in the economy, the available monetary and fiscal tools cannot be geared quickly to set right the imbalance. Further it is also too much to expect the government officials to act quickly to the tempo of change in economic activity; So the policy makers make provisions for automatic adjustments in the fiscal structure. These built-in-stabilisers or automatic stabilizers will automatically come into play in proportion to the rise and fall of economic activity.

Another important built-in-stabiliser is the unemployment insurance scheme. During periods of prosperity or upswing, the employers pay taxes and the employees pay some amount towards unemployment insurance scheme. This money gets accumulated.

From the above discussions, we can note the following observations:

1. There is no fool-proof method of solving the problem of trade cycles. All measures suggested must be carefully coordinated and implemented to achieve economic stabilisation.

2. These stabilization objectives should not be interpreted rigidly. We cannot expect them to eliminate all fluctuations in employment, output and prices. Cyclical fluctuations are an inherent characteristic of capitalist society and cannot be eliminated completely but can be controlled reasonably if measures are effectively adopted.

During times of depression and the consequent unemployment, the public spending is automatically effected by doling out money to the unemployed people. Thus, the flow of money is regulated automatically from the people to the government in times of prosperity, and from government to the people in times of adversity. The built-in-stabilisers play a strategic role in fighting recessions.

By this method, the tax rates are so fixed that in the upward phase of the trade cycle, with increase in national income, the tax yield will go up automatically at a faster rate without any change in the tax structure. The progressive rate of taxation is one of the important built-in-stabiliser in the tax structure.

3. Some fluctuations may be beneficial to economic growth. Therefore, stabilization policy should be applied only to suppress inappropriate fluctuations.