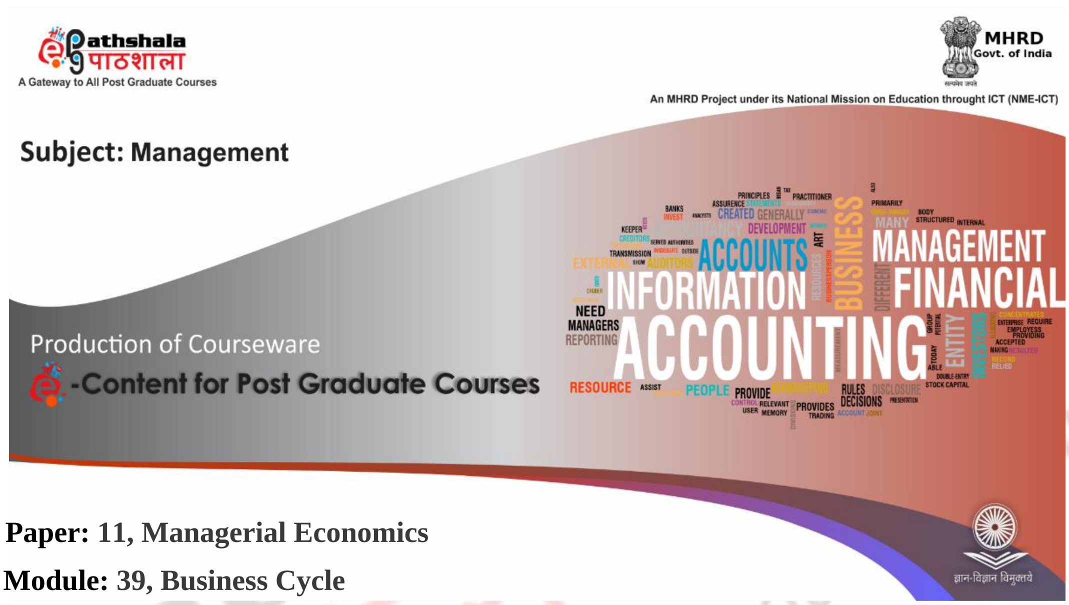

Paper: 11, Managerial Economics

Module: 39, Business Cycle

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Items	Description of Module
Subject Name	Management
Paper Name	Managerial Economics
Module Name/Title	Business Cycles
Module Id	Module no-39
Pre-requisites	Basic knowledge about business cycles
Objectives	*To understand the meaning and concept of business cycles *To understand the different theories of business cycles
Keywords	Business cycle, Business theories, Trade cycle

QUADRANT-I

	Module 39: Business Cycles
1.	Learning Objectives
2.	Introduction
3.	Features of Trade Cycles
4.	Phases of Business Cycles
5.	Types of Business Cycles
6.	Theories of Business Cycles
7.	Summary

1. Learning Objectives

After completing this module, the students will be able to understand:

- The concept of Business/Trade Cycles
- Features of Business Cycles
- Phases of Business Cycles
- Types of Business Cycles, and
- Various theories of business cycles

BUSINESS CYCLES/TRADE CYCLES

2. Introduction

Business cycles or Trade cycles refer to the continuous fluctuations in economic activity in the economy as a whole. Fluctuations in economic activity are a feature of every economy and pose a persistent problem in the short run normally. These short term fluctuations in economic activity, which are reflected in output and employment levels, are called trade cycles.

So we can say, business cycle is an alternate expansion and contraction in overall business activities. It is regular fluctuations in income, output and employment which tend to be self-reinforcing or cumulative. It refers to wave like fluctuations and is invariably start in the industrial sector and then spread itself over the other sectors of the economy quickly because in modern economy, the different sectors are interrelated. In short business cycle or trade cycles are the ups and downs in economic activities. So business cycles, boom in one period and slump in the subsequent period, in economic activities are essentially continuous features of the economic development of a country. Business cycles influence business decisions tremendously and set the trends for future business. As we know there are five phases of business cycles namely, Depression, Recovery, Prosperity, Boom and Recession. As the name suggests, the period of prosperity opens up new and lager opportunities for investment, employment, and production and promotes business in the economy. On the other hand period of depression reduces business opportunities and investment as well as employment in the economy.

Thus, in order to earn maximum profit, an entrepreneur must analyze the economic environment of the period before taking his important business decisions.

3. Features of Trade Cycle

From the above definitions, we can draw the following features.

- Cyclical fluctuations are recurring in nature.
- A trade cycle contains self-generating forces which tend to terminate one phase and bring the other phase of the cycle.
- A trade cycle is cumulative self-reinforcing.
- Trade cycles are prevailing in their impacts. They affect virtually every part of the economy.
- Keynes pointed out that a trade cycle is characterized by the presence of crisis.
- Business cycles by and large follow a pattern of development.
- Business cycles occur periodically. It is synchronic in nature which means that changes not occur only in single industry, but in the whole industry.
- Business cycles are international in character.

- Investment and consumption of durable goods are most affected by business cycles
- One of the important features of business cycles is that consumption of non durable goods and services does not change much during the phases of different trade cycles.

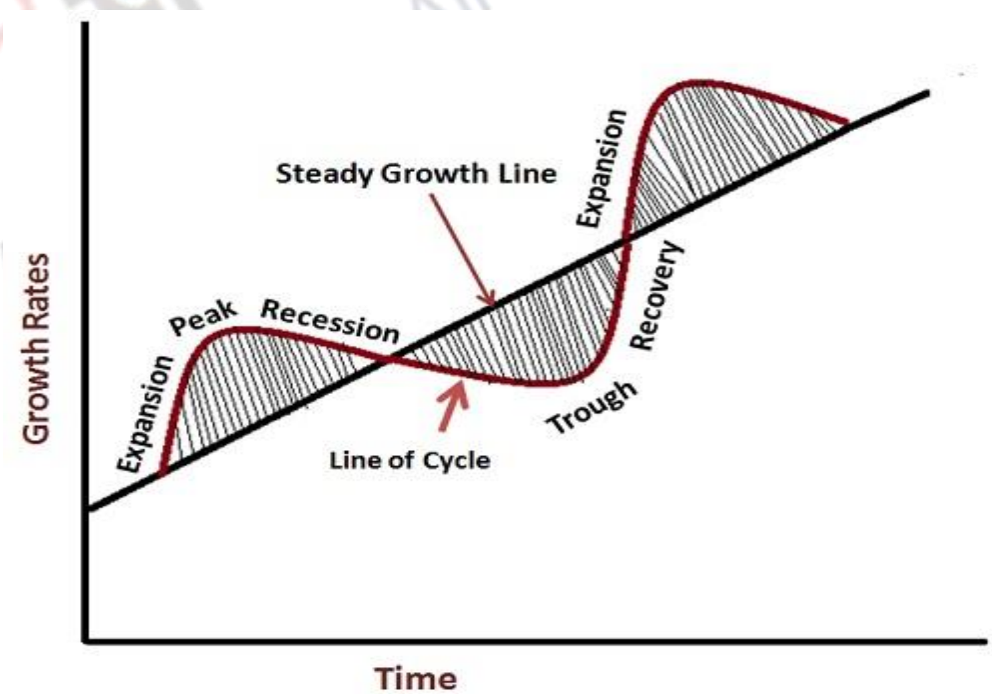
- The cycle will not have identical spacing, and thereby, asymmetric nature of the cycle exhibits a different time period of occurrence.
- Most of the macroeconomic variables are affected by the cyclical movement. In the upswing phase, output, prices, employment, income shows a upward trend, while an opposite trend is observed in downswing phase. Even though the trend is similar, but the magnitude of impact may be different.

4. Phases of Business Cycles

Business cycles have shown different phases the study of which is useful for the proper understanding of market. In general there are two phases of business cycle and that is prosperity and depression. But there are some stages in between two. These are:

- Expansion or boom or upswing or prosperity of business activities
- Peak of boom or upper turning point
- Recession or contraction or downswing or depression
- Trough, the bottom of depression or lower turning point

These phases are shown in the following figure.



As it is shown here, with the revival of economic activities the economy moves into the expansion phase, but after reaching peak point, contraction or recession or downswing starts. When the recession gathered momentum, it is called depression and that downswing continues till the lowest turning point which is also called trough. After that economy start recovering it ultimately tries to enter into an expansion phase and the process is continuous.

Now we discuss the various phases of business cycles as under:

- **Expansion and Boom**: The various characteristics of economy in its expansion phase are increase in output, increase in investment, increase in employment, increase in aggregate demand, and increase in sales, increase in profits, increase in wholesale and retail prices, increase in per capita output and rise in standard of living. There is absence of involuntary unemployment but structural and frictional unemployment prevails in the economy. So when expansion gathered momentum we have prosperity in the economy and in this phase gap between potential GNP and actual GNP is zero. It means in this phase level of production is at maximum. So in prosperity phase there is a high level of effective demand, employment and income. People enjoy a high standard of living also. In the later stages of prosperity, it may happened sometimes that banks start reducing credit or profit expectations change adversely and trader become doubtful about future state of the economy. However different economists have different views regarding the possible reasons for the end of boom phase and start of downswing in economic activity. Some have argued that the contraction in bank credit may cause downswing and in the eyes of others, sudden collapse of expected rate of profit is a major cause of downswing.

- **Recession and Depression**: In this phase, economic activities slide down their normal level. In this phase not only output decreases but the level of employment also reduce and the result of this there is fall in GNP also. Depression is a just contrast of prosperity, as there is presence of involuntary unemployment in the economy, output and trade declines, profit and wages fall as a result income also, decline in investment and aggregate demand. In depression phase there is fall in interest rates also and with low rate of interest people demand for money holding increases. All construction activities come to an end. Durable consumer goods and capital goods industries are hit badly. In short all economic activities touch the bottom.

- **Trough and Recovery**: When economic activities touch the bottom level, the phase of trough is reached. It is a phase where capital stock is allowed to depreciation even without replacement. Technology advancement makes the capital goods obsolete. In this situation if a bank starts expanding credit facilities for the advancement of technology, new types of machines and other capital goods then it brings a recovery in the economy. In this phase, some firm's plans investment, some going for renovation programmes and some undertakes both. This step will generate construction activities in both capital and consumer goods sector. As a result factor of production fully utilized wages and other input prices move upward. Thought it may not in a uniform rate but in increasing trend. So when this process gathered momentum, economy again enters into the phase of recovery and then expansion. Thus the business cycle going on.

5. Types of Business Cycle

Following the writings of Prof .James Arthur and Schumpeter, we can classify business cycle into three types based on the underlying time period of existence of the cycle as follows:

- Short Kitchin Cycle (very short or minor period of the cycle, approximately 40 months duration)
- Longer Juglar cycle (major cycles, composed of three minor cycles and of the duration of 10 years or so)
- Very long Kondratief Wave (very long waves of cycle, made up of six major cycles and takes more than 60 years to run its course of duration)

6. Theories of Business Cycle

A business cycle is a complex phenomenon which is common to every economic system. Several theories of business cycles have been propounded from time to time to explain the causes of trade cycle. In order to analyses the problem of trade cycle, it is essential to review the important theories of trade cycle.

a) **Hawtray's Monetary Theory of Business cycles:** Hawtray was of opinion that in depression monetary factors play a critical role. The main factor affecting the flow of money and money supply is the credit position by the bank. He made the classical quantity theory of money as the basis of his trade cycle theory. According to him, both monetary and non-monetary factors also affect trade. His theory is basically the product of supply of money and expansion of credit. This expansion of credit and other money supply instrument create a cumulative process of expansion which in return increase aggregate demand. This theory is based upon the following beliefs:

- Consumer's total expenditure comprises expenditure on consumption and investment.
- Consumer's total outlay is the total money income of community.
- Stock market is very sensitive.
- Bank credit plays an important role in money supply.

When the process of expansion starts with the credit creation process and money supply, then economy easily attains a boom phase. During boom, bank realizes that they have reduced their results due to over credit creation which is dangerous. Expansion of credit is stopped which set the downward tendencies in motion. It is a common phenomenon that when there is no credit expansion in the economy then there is no prosperity. Heavy shortage of bank reserve occurs due to drainage of cash from the banking system. Then this phase converted into depression due to shortage of money supply in the economy. In simple words we can say that with the decline in effective demand, depression phase starts.

According to this theory the only cause of fluctuations in business is due to instability of bank credit. So it can be concluded that Hawtray's theory of business cycle is basically depend upon the money supply, bank credits and rate of interests.

Criticism of the theory

i. Hawtray neglected the role of non-monetary factors like prosperous agriculture, inventions, rate of profit and stock of capital.
ii. It only concentrates on supply of money.
iii. Increase in interest rates is not only due to economic prosperity but also due to other factors.
iv. Over-emphasis on the role of wholesalers.
v. Too much confidence in monetary policy.
vi. Neglect the role of expectations.
vii. Incomplete theory of trade cycles.

b) Innovation Theory

The innovation theory of business cycle is invented by an American Economist Joseph Schumpeter. According to this theory, the main causes of business cycles are over-innovations. He takes the meaning of innovation as the introduction and application of such techniques which can help in increasing production by exploiting the existing resources not by discoveries or inventions. Innovations are always inspired y profits. Whenever innovations are introduced it results into profitability then shared by other producers and result into decline in profitability. Then it further leads to a new innovation and generate profits. Schumpeter has classified innovation in following categories:

- Introduction of new type of product.
- The introduction of new technique of production.
- Discovery of new markets.
- Finding new sources of raw material.
- Changing or improving the old source of raw material for better productivity.

- Introduction of new method to the management.

Once innovation is introduced, producer has to manage the market for the product. According to Schumpeter, innovations lead to short waves. The money market and banks also play significant role in innovation theory. He also explains the up-swing and the down-swing of the business cycle with the help of innovations. The upswing wave starts with the profitable innovations when a new raw material, new technology takes place, it will result higher profit to the producer. They progress and reach to peak position with the help of credit facilities given by banks or other financial institutions. Once boom position is reached, market flooded with multiple products and as a result there is decline in profitability. Again after some time, new inventions are take place and wave of recovery starts. He assumes the stoppage of innovations and lack of innovation by the entrepreneur as the main reason of recession in the economy. This theory has also suffers some criticism:

- Innovation fails to explain the period of boom and depression.
- Innovation may be major factor of investment and economic activities but not the complete process of trade cycle.
- This theory is based on the assumption that every new innovation is financed by the banks and other credit institutions but this cannot be taken as granted because banks finance only short term loans and investments.

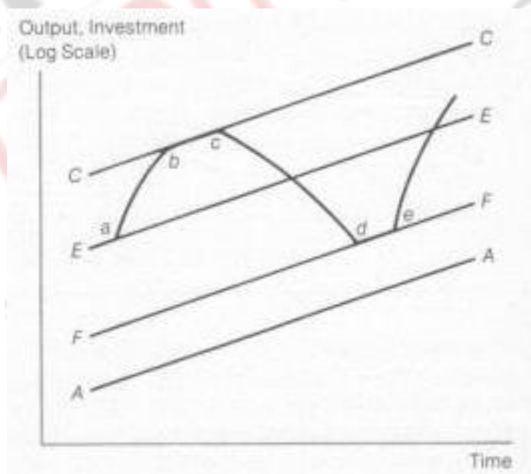
c) Keynesian theory of Business Cycle

Aggregate effective demand of an economy occupies a centre stage in Keynesian economics as it determines the level of income, output and employment in the short run. Aggregate demand is composed of total expenditure of the consumers on consumption goods and producers on investment goods. However, fluctuations in aggregate demand can be explained by the fluctuations in investment demand, as consumption demand is more or less stable in the short run. Investment demand is conditioned upon the expected rate of profit (or Marginal Efficiency of Capital, by following Keynesian terminology) and rate of interest. Again rate of interest is found more or less sticky in the downward direction in the short run, and thereby, expected rate of profit plays an instrumental role in explaining variations in investment demand.

Overall, the theory suggests that fluctuations in business cycle can be explained by the perceptions on expected rate of profit of the investors. In other words, the downswing in business cycle is caused by the collapse in the marginal efficiency of capital, while revival of the economy is attributed to the optimistic perceptions on the expected rate of profit. Moreover, Keynesian multiplier theory establishes linkages between change in investment and change in income and employment. However, the theory fails to explain the cumulative character both in the upswing and downswing phases of business cycle and cyclical fluctuations in economic activity with the passage of time.

d) Hicks's Theory of Business Cycle

Hicks extended the earlier multiplier-accelerator interaction theory by considering real world situation. In reality, income and output do not tend to explode; rather they are located at a range specified by the upper ceiling and lower floor determined by the autonomous investment. In the theory, it is assumed that autonomous investment tends to grow at a constant percentage rate over the long run, the acceleration co-efficient and multiplier co-efficient remain constant throughout the different phases of the trade cycle, saving and investment co-efficient are such that upward movements take away from equilibrium. The actual output fails to adjust with the equilibrium growth path overtime. In fact it has a tendency to run above it and then below it, and thereby, constitute cyclical fluctuations overtime. This basic intuition can be shown with the help of the following figure.



The Hicksian Cycle

In the figure the lines CC and FF set the upper ceiling and lower floor within which the cycle moves. The line EE indicates the equilibrium growth path determined by the autonomous investment and the combined influence of multiplier and the accelerator. Starting at point a along the EE, assumes that there is a sudden shocks affecting favorably the investment opportunity. As a result, output will move along the expansion path from point **a** to point **b**. After touching the upper ceiling line CC, the expansion must end at point c and a contraction must follow to move towards point d. Consequently after hitting the floor, there may be a crawling movement through the path d to e. With the passage of time, once the income movement begins, the accelerator starts to work favorably and upswing of cyclical movement gather momentum. The economy again moves towards the full employment ceiling CC.

Although Hicksian theory has various merits but, it suffers from some weaknesses also. Some of these are:

i. Wrong assumption of constant multiplier and acceleration co-efficient.
ii. Highly mechanical and mathematical device.
iii. Wrong assumption of no-excess capacity.
iv. Full-employment ceiling is not independent

e) Samuelson theory of Business Cycle

Prof. Samuelson is an eminent economist to build a trade cycle model by integrating the theory of multiplier and acceleration principle. Samuelson model shows how multiplier and acceleration interact with each other in order to generate income as well as to increase consumption and investment demand more than expectations which cause cyclic economic fluctuations. This effect is also called as leverage effect or super multiplier. For the proper understanding of this model first we know the concept of autonomous investment and derived investment. Autonomous investment is incurred by the government with the objective of social welfare. It is also called public investment. The autonomous investment is the investment which is done for the sake of new inventions in techniques of production. Derived investment is the investment undertaken in capital equipments which is induced by increase in consumption. This theory is based on some assumptions such as there is no excess production capacity in an industry, current year consumption is based in previous year's income, government is not involved in any activity and there is no foreign trade, etc.

According to this theory process of multiplier starts working when autonomous investment takes place in the economy. With the autonomous investment income of the people rises and there is increase in the demand of consumer goods. It directly affected the marginal propensity to consume. If there is no excess production capacity in the existing industry then existing stock of capital would not be adequate to produce consumer goods to meet the rising demand. Now in order to meet the consumer's requirements, producers will make new investment which is derived investment and the process of acceleration principle comes into operation. Then there is rise in income again which in the same manner continue the process of income propagation. So in this way multiplier and acceleration interact and make the income grow at faster rate than expected. After reaching its peak, income comes down to bottom and again start rising.

This theory has also some weaknesses such as:

- This model only concentrates on the impact of the multiplier and acceleration and it ignored the role of producer's expectations, changing business requirements and consumers preferences etc.
- It is not practically possible to compute the fact of multiplier and acceleration principle.
- It has wrong assumption of constant capital output ratio.

7. Summary

- Business cycle is characterized by periodic non-random movement, wave like fluctuations, cyclical movement, non-identical spacing.
- Three types of business cycle: Short Kitchin Cycle, Longer Juglar cycle, and Very long Kondratief Wave
- Business cycle generally passes through four phases, i.e. prosperity, recession, depression and recovery.
- Indian economy experienced a gradual improvement in the business cycle in recent times.
- Business cycle has a rich theoretical foundation. Some of the well-known contributors are Classical economists (Smith, Miller and Ricardo), Schumpeter, Hansen, Metzler, Harrod, Kelecki, Samuelson, Koldor, Hicks, Goodwin, and Duesenberry.
- This module outlines a brief account on the contributions made by modern economists, viz. Keynesian theory of business cycle, Samuelson theory of Multiplier-Accelerator interactions, and Hicks's theory of business cycle.