

# BUSINESS CYCLES

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## INTRODUCTION

In a free-market economy, growth is rarely a smooth ride. There are oscillations in national income or the level of aggregate output which have often been observed to follow a wave-like pattern with certain measure of regularity or periodicity in terms of time, duration and sequence. Such movements, observed over long periods, are referred to as business cycles. **Business cycle** fluctuations are distinct from seasonal variations in aggregate business activity and these patterns have generated a lot of interest and controversy among economists and business environment experts. These experts seek to analyze and provide answers to such questions as:

- What factors trigger business cycles?
- How are booms and recessions caused?
- How does aggregate business activity expand and reach a peak?
- How does a market crash?
- What generates recession and what factors determine its duration?
- How does an economy recover from a trough or depression and takes an upturn?

Various theories have been developed to answer such questions and these provide valuable insights to a business manager to understand, analyze and predict business cycles. But before undertaking these explanations, it is essential to understand the basic nature and phases of a business cycle.

## NATURE OF A BUSINESS CYCLE

The main features of business cycles may be summed up as follows:

- These are the swings in national income, output and employment causing expansion and contraction in most of the sectors of the economy over a period of time.
- Cyclical patterns are neither smooth nor regular. No two business cycles are identical.
- Cyclical movements are easily distinguishable from seasonal or random fluctuations in aggregate economic activity.
- The cyclical patterns are observed over a long time period, most generally from 20 to 30 years, and, in certain cases even up to 50 years.
- There is a certain degree of regularity and periodicity in the alternating contractionary and expansionary fluctuations.

The nature of business cycles is brilliantly put by **Samuelson and Nordhaus (1998)**:

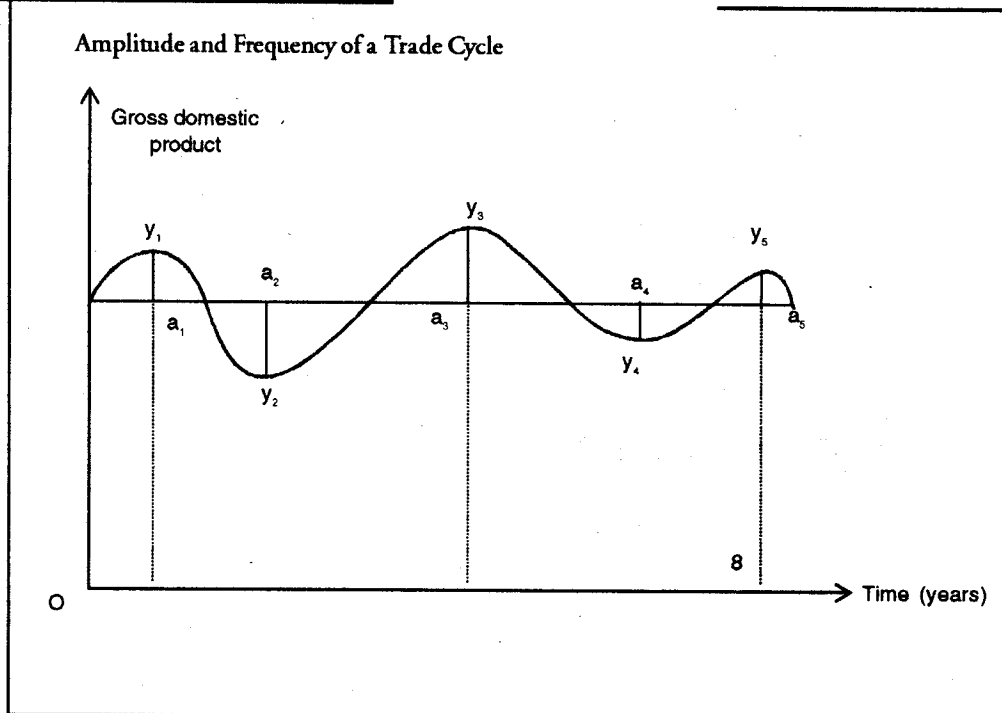
'...No exact formula, such as might apply to the revolutions of the planets or of a pendulum, can be used to predict the duration and timing of business cycles. Rather, in their irregularities, business cycles more closely resemble the fluctuations of the weather... The cycles are like mountain ranges, with different levels of hills and valleys. Some valleys are very deep and broad, as in the Great Depression; others are shallow and narrow, as in the recession of 1991'.

## AMPLITUDE AND FREQUENCY OF A BUSINESS CYCLE

As national income oscillates around a trend or equilibrium line, its amplitude and frequency can be observed.

Amplitude is the maximum distance by which national income deviates from the trend line. This amplitude varies as the cycle proceeds with irregular pattern. This is shown in **Figure 9.1**. Frequency refers to the number of times the cycle repeats itself over a period of time. One cycle is completed between two consecutive peaks.

**FIGURE 9.1**

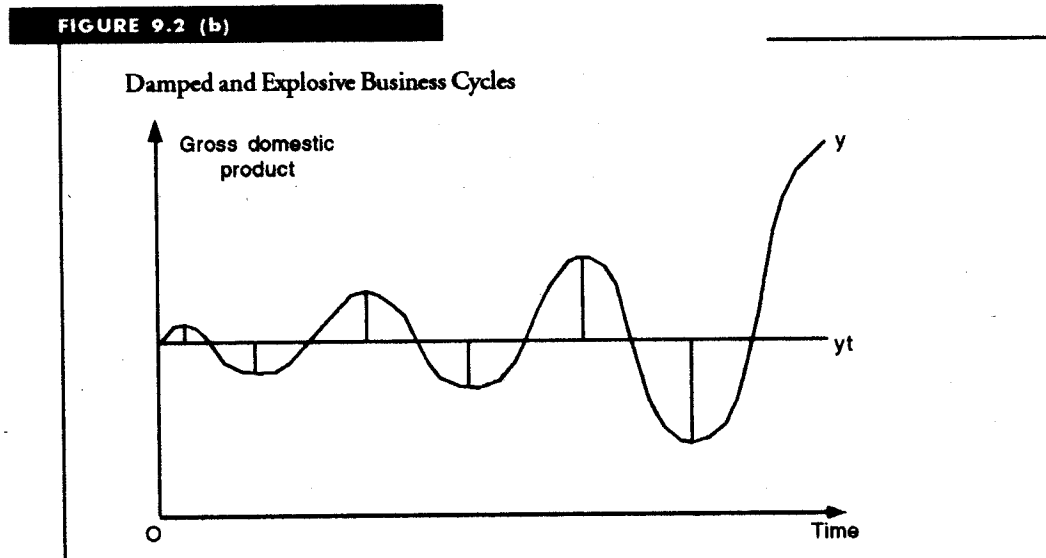
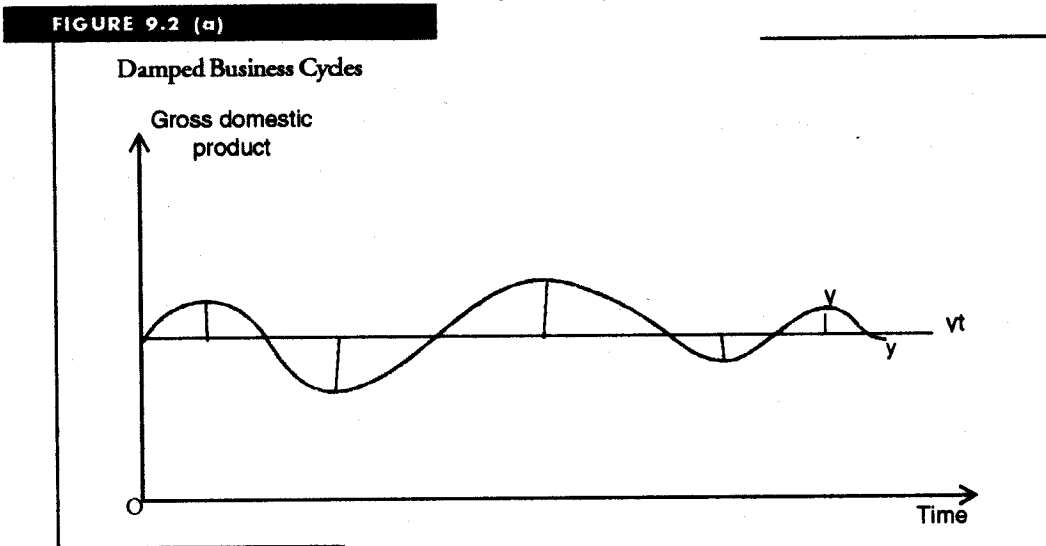


In the Figure, amplitudes are  $a_1y_2, a_2y_3, a_3y_4, \dots$  that vary in length as the cycle proceeds irregularly. The frequency of the cycle is two as over a period of eight years, the cycle makes two complete oscillations (i.e. two consecutive peak-to-peak positions). A business cycle can take infinite variations as the amplitude and frequency of the cycle changes. **Figure 9.1** simplistically assumes a horizontal trend line for national income, which shows absence of growth. More realistically, business cycles take place on rising trend lines as most economies show some rate of growth over time.

## DAMPED AND EXPLOSIVE CYCLES

Most of the cycles, when historically traced, follow an irregular pattern on a rising trend. Under certain conditions of investment and demand, as will be discussed in the subsequent sections, business cycles may exhibit damped and explosive patterns. On a damped cycle

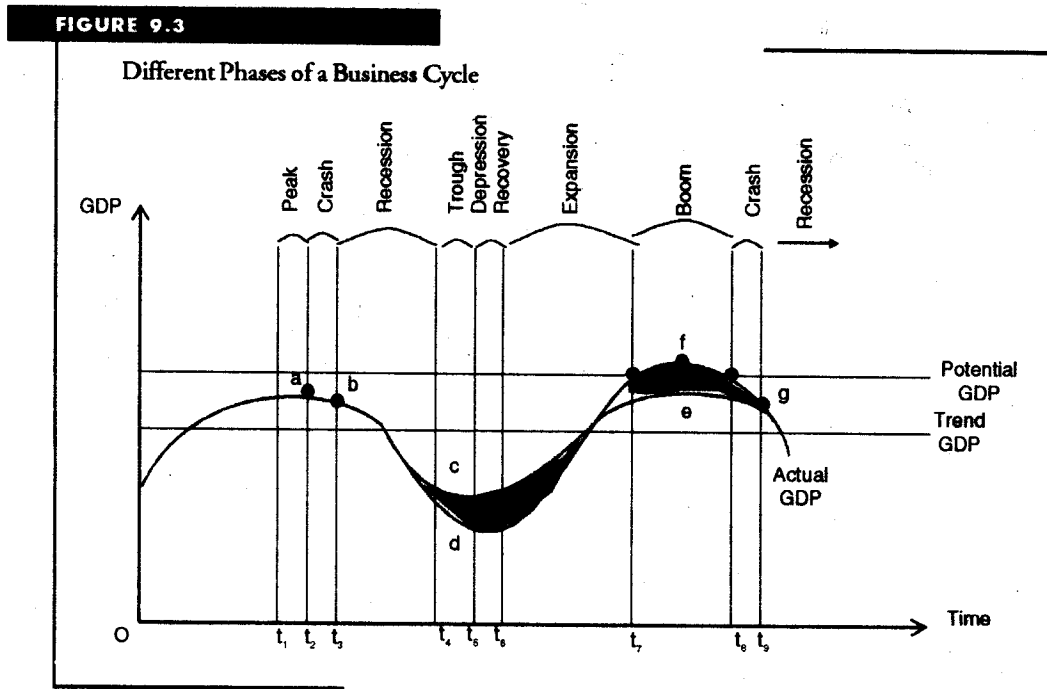
(Figure 9.2a), the amplitude gradually declines and the national income eventually converges with the trend line. In an explosive cycle, (Figure 9.2b) the amplitude increases as the cycle proceeds and the oscillations above and below the trend line become wider and wider so that the economy eventually reaches a crisis point requiring urgent public policy intervention.



Panel (a) of Figure 9.2 shows damped business cycle in which amplitude of the cycle declines with the passage of time and the actual GDP line eventually converges with the trend line  $yt$ . In panel (b), explosive cycle is shown in which the amplitude increases and the swings of GDP around the trend line become sharper as time proceeds. This is a relatively rare case but in macroeconomic theory, this is possible under standard conditions.

## DIFFERENT PHASES OF A BUSINESS CYCLE

Now we can study the path of a business cycle and find out the various phases through which it passes. The different phases of a business cycle are shown in **Figure 9.3** below.



### PEAK

The above figures show a stylized business cycle. During the time interval  $t_1 t_2$  the cycle is at its peak in the sense that the preceding and succeeding GDP levels are lower as compared to the peak level. At this stage there is high degree of **capacity utilization** which is supported by matching demand. Further increases in demand reflect more in increased prices rather than increased output. These are in general excess-demand conditions in the factor market as a result of which interest and wage levels are high. As employment level is high, there are conditions of general shortage of labour, skilled workers and managerial talents. As capacity utilization levels are already high, further increases in output are possible only through new investment. Costs are high and rising but so are the prices. On balance, there are conditions of general profitability in business. This period is relatively short.

### CRASH

This is a very short period during which momentum of the peak period is broken. *The crash could be induced by some external shock like massive withdrawal of foreign investment from the stock market, sudden increase in the prices of some vital raw material like crude petroleum, a political*

*change in the country, a natural calamity like widespread floods or drought or even a series of scams.* A crash sets the preconditions of recession and if not averted may be succeeded by recession. During the period of crash ( $t_2, t_3$  and again  $t_8, t_9$ ) economic conditions are uncertain and speculation is rife. Most businesses prefer to wait and watch the situation and postpone important decisions. Stock market is generally the first victim of a crash. *It is not necessary that a crash must lead to recession; if well managed, the economy can return to its previous peak level.*

## RECESSION

This is the nightmare of a business manager. It is the result of continuous interaction between a number of macroeconomic forces which bring about a sustained fall in the level of aggregate economic activity. Initially, the demand falls off and consequently and subsequently, production employment and income fall. Falling income further brings about a fall in demand and the vicious circle continues. Falling demand heats up competition among producers to retain or prevent a fall in their market shares. Price cuts, advertising campaigns and consumer promotion schemes become common. This squeezes profit margins. A large number of firms are marginalized and driven into losses. There is a substantial fall in investment and capacity utilization levels dip low. **Inventory** levels rise to unexpectedly high levels. All these developments are reflected in bearish trends in the stock market and other leading macroeconomic key indicators as described in **Chapter 2**. (See **Box 9.1**) Time period  $t_3, t_4$  signifies this stage.

### BOX 9.1

#### What Happens during Recession?

The behaviour of key macroeconomic variables during recession is summed up as follows:

Variable	Behaviour
1. Aggregate demand	Falling
2. Production and employment	Falling
3. National income	Falling
4. Inventory levels	Rising
5. Credit demand	Falling
6. Interest rate	Falling
7. Competition	Rising
8. Stock market	Falling
9. Inflation rate	Falling
10. Imports	Falling
11. Exports	Uncertain
12. Exchange rate	Uncertain
13. Mergers	Rising

Here, it is worth mentioning that in a general recession, all the industries are not equally affected. While most of the industries are affected, a number of industries are there which are by and large unaffected or least affected by virtue of the nature of their operations or the type of products they produce. A recession, therefore, also induces shift of capital among industries. Not

only that, weaker firms are taken over by and merge with the stronger ones. *A recession wave is often observed to be accompanied by a merger wave.*

## TROUGH AND DEPRESSION

If the recession is not checked, it tends to degenerate into a trough and further into **depression** or slump. Trough is a situation of low level of economic activity at which the economy is believed to be at the bottom. If the trough or the bottom is deep, it is called depression or slump, which is the extreme form of recession. *All the characteristics of recession appear in the most accentuated form at this stage. This is the minimum level from which the economy cannot sink further.* At this stage, consumer demand is abysmally low and unemployment is high. Industrial excess capacity is huge and firms postpone new investment decisions. Stock market is subdued and business confidence is at the lowest ebb. Profits are generally low and stagnant and a large number of marginal firms either sustain losses or quit business. *The situation generally warrants strong macroeconomic policy action and a structural shake-up. The duration of a trough depends upon the nature of the economy and state policy but a depression is generally prolonged and it takes the macroeconomic policy quite some time before the economy is taken out of it.* The Great Depression of 1930s lasted for about a decade, while the slump of the 1980s was prolonged over a number of years. In **Figure 9.3**, trough or depression is shown to last over the period  $t_4t_5$ .

## RECOVERY

Recovery follows a trough or depression. Recovery is the result of the interplay of macroeconomic variables under the market mechanism or due to a strong macro policy action of the government. In any case, recovery has a short period (but not as short as a crash) and, if sustained, introduces an economy to the expansionary phase. In this stage, future expectations are positive and optimistic. Business confidence tends to pick up. Worn out machinery gets replaced, though slowly. Though new investment takes place, investors are generally cautious and slow. There are signs of demand picking up. Business managers prepare new strategies in the changing business environment. *Recovery is basically the transitional stage between trough and expansion. It is generally a sensitive situation and there are chances that if the macro-economic policy misfires or if the economy receives a shock (for example from drought, floods, currency crisis, sudden increase in import prices or a war), the situation may revert back to slump requiring fresh effort to come out of it.* The recovery stage is depicted over the time period  $t_5t_6$ .

## EXPANSION

This is the stage from recovery to the next peak. All the characteristics of recession are just reversed in the expansion phase (also called the **phase of prosperity**). This phase is characterized by rising demand and output. There is business optimism all around. Capacity utilization levels are rising and inventory levels fall during this phase. Growth picks up at an accelerated pace so long as idle resources exist. However, as the economy gets closer to full employment or peak level, production bottlenecks appear and costs and prices begin to rise, significantly. Eventually, growth rate tends to slow down and national income reaches the next peak. This stage is shown to last over the time period  $t_6t_7$ .

## BOOM

Boom is the extreme position of a peak. Ordinarily, national income cannot exceed its potential level. *But sometimes circumstances exist when an economy, powered by the preceding expansionary phase and under its own momentum, hits through the potential level and for a brief while remains above it, forming a short-lived boom.* This is shown by the GDP path *dfg* within the time intervals  $t_7, t_8$ .

Boom phase becomes possible when in order meet demand, labour and capital work excessively and beyond normal hours. Capital depreciates at an accelerated pace and resource exhaustion is fast during this phase. This type of situation is considered unsustainable in the long run. The economy gets overheated and tends to head towards a crash. If the economy alternatively does not enter the boom phase, it treads the usual path *deg*, in the Figure.

The above description anatomises a business cycle into detailed stages or phases. In non-technical language, the falling portion of the GDP path is called slump and the rising portion a boom. Most business managers visualize only two main stages of a business cycle—recession and expansion—with which they are chiefly concerned. Depression is considered to be the acute form of recession. Peaks and troughs are the turning points of the cycle. These phases alter the business environment significantly and the managers are almost continuously engaged in discerning threats and opportunities in their stages and developing corresponding strategic positions in the market.

## HOW DO BUSINESS CYCLES OCCUR? SOME STANDARD EXPLANATIONS

Unfortunately, there is no unanimity among experts as to what precisely causes business cycles. Nevertheless substantial literature on the subject has accumulated which can be divided into various streams of explanations. The alternative explanations attempt to answer the following two basic questions:

1. Which factors trigger fluctuations in GDP and related macro-variables?
2. How do these fluctuations form a cyclical pattern?

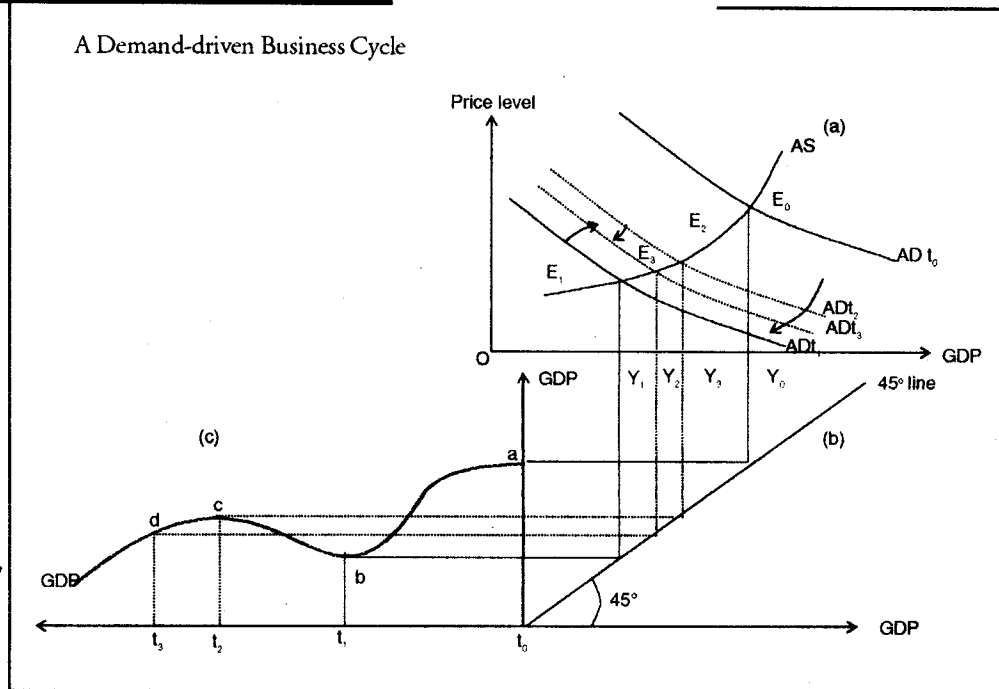
The following sections provide the various explanations for business cycles.

### DEMAND-DRIVEN BUSINESS CYCLES

One of the most basic and widely accepted explanation for business cycles is that the swings in aggregate demand are the principal source or cause of the cycles. Demand swings could be caused by periodic rise and fall of consumption expenditure, shifts in government expenditure and fluctuations in exports and imports. *Private investment is the most volatile component of aggregate demand and it swings in response to changes in the rate of interest, business opportunities, future expectations and supply of credit.* GDP or national income is affected through changes in these constituent elements. **Figure 9.4** shows how rising and falling demand affects income and generates cyclical pattern.



FIGURE 9.4



**Panel (a)** shows aggregate demand (AD) and aggregate supply functions. **Panel (b)** simply gives a 45° line to transpose GDP quantities from horizontal to vertical axis. **Panel (c)** relates GDP value with time. In Panel (a), as aggregate demand gradually falls from  $AD_{t_0}$  at time  $t_0$  to  $AD_{t_1}$  at time  $t_1$ , GDP correspondingly falls from  $OY_0$  to  $OY_1$  over the same period. Corresponding to highest GDP level  $OY_0$  at time  $t_0$  we have point 'a' in Panel (c) as the **peak**. As GDP falls to  $OY_2$  (minimum GDP) at time  $t_1$ , we have point 'b' in Panel (c), which is the **trough** in the business cycles. Now the economy recovers and expands as aggregate demand gradually rises to the next highest-level  $AD_2$  raising GDP to  $OY_2$ . Correspondingly, we have point 'c' in Panel (c) as the next peak. Further, aggregate demand falls to  $AD_3$  lowering GDP to  $OY_3$  at time  $t_3$  corresponding to which we have point 'd' in Panel (c). The GDP path *abcd* traces a full business cycle corresponding to fluctuations in demand.

### THE MONETARY APPROACH

Monetary approach emphasizes that business cycles are caused primarily by the expansion and contraction of money and credit in an economy. A systematic thinking in this direction was initiated by R.G. Hawtrey, a famous English economist who believed that a business cycle couldn't propel itself in the absence of an elastic **money supply**. He believed that business cycle is essentially a monetary phenomenon triggered by variations in money supply brought about by the banking system.

The basic argument runs like this. Initially, in equilibrium, national income equals aggregate expenditure, cash balances of the household and the business sectors are at the desired level, the

bank credit is at the optimum so that banks don't like to increase or decrease credit supply and the **balance of payments** is in equilibrium. From this position, if the supply of money or credit increase or the cash balances of the household or business sector fall, money is pumped into the economic system. It increases income and expenditure of the people. Production increases, which in turn raises demand for credit (both for **working capital** and new investment). Expansion continues so long as resources are freely available and forthcoming. Expanding demand causes some increase in the general level of prices increasing profit margins and inducing the business sector to produce still more.

The expansion process tends to slow down, as resources get scarce and more expensive. As existing **infrastructure** is strained, production bottlenecks appear. Wages and interest also rise. The increase in interest is basically due to high demand of credit, which pushes the **credit-deposit ratio** of banks to high levels endangering their liquidity position. As banks restrict further credit (along with high rate of interest), a cumulative contractionary chain reaction is produced. Investment by the business sector gets sluggish and money starts flowing into the banking system as **transaction demand for money** goes down and credit repayments are made. This causes reduction in money supply lowering income and hence production. As the cash reserves and credit-deposit ratios of the banks get comfortable, banks again start issuing fresh credit, which sets the stage for revival. And the business cycle continues.

The monetary approach was further developed and refined by AF Hayek, L Robins, F Machlup, L Mises and M Friedman. The explanations provided by these economists revolve round the basic proposition that fluctuations in aggregate demand are caused primarily by changes in monetary factors.

## THE MULTIPLIER-ACCELERATOR MECHANISM

This is one of the few theories which is capable of explaining the occurrence of regular business cycles. The multiplier mechanism was explained in **Chapter 7**. The **accelerator principle** explains how investment is determined. According to this principle, rate of investment in an economy depends basically on the rate of change in output. Thus in a period of high rate of economic growth we can expect the rate of investment to be high.

The principle appeals to business sense. Demand for investment is essentially derived from the demand for output. Additional investment in plant and equipment (and other forms as well) is required to support additional output. At a particular level of technology, capital stock (K) required to produce output Y (or GDP) is given as:

$$K = a.Y \quad \dots\dots (1)$$

Where 'a' is the **capital-output ratio** which depends upon the level of technology. 'a' is also called **accelerator co-efficient** relating changes in output to consequential changes in K. This is,

$$\Delta K = a . \Delta Y, \text{ where } \Delta \text{ denotes change and}$$

$$\text{or, } I = a . \Delta Y \quad \dots\dots (2), \text{ where } I \text{ denotes investment.}$$

Change in capital stock ( $\Delta K$ ) is investment (I). Equation (2) depicts the accelerator principle that a given change in Y will produce a change in capital stock. Thus, if  $\Delta Y = 100$  and  $a = 4$  then an investment of 400 will be caused. The accelerator principle itself hints that rises and falls in

aggregate demand or output produce corresponding changes in investment. And changes in investment, as per multiplier mechanism, produce multiple changes in the level of output. *It means that the combined impact of multiplier and accelerator is capable of producing significant fluctuation in an economy. Not only that, multiplier-accelerator interaction has the power to explain a complete business cycle including the cumulative nature of expansion and contraction processes, floors and ceiling and the upper and lower turning points.*

### Cumulative Nature of Expansion and Contraction Processes

The multiple processes initiated by an increase in aggregate demand (increase in consumption or investment spending) starts a cumulative process of income growth by itself. Additional income stimulates demand and hence production. As output increases, accelerator comes into action causing fresh investment. The investment, through multiplier action, again leads to income growth and hence the whole process gets a cumulative expansionary character. Similarly, a fall in aggregate demand will put the entire cumulative process in reverse gear. *The cumulative processes get boosted in the same direction by business expectations and confidence, which are generally in line with the expansionary or contractionary process.*

### Floors and Ceilings

*A business cycle theory must explain why the cumulative upward and downward processes should come to an end, resulting in ceilings (upper limit point) and floors (lower limit points).* In this theory, floors and ceilings are mainly attributed to the action of the accelerator in both upward and downward processes.

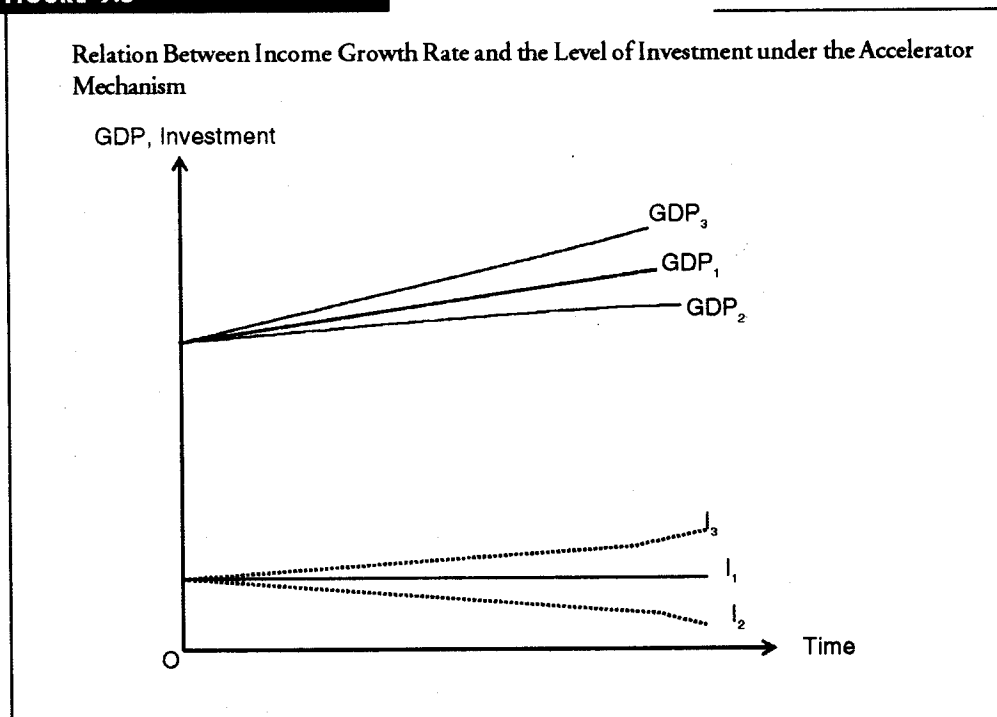
As the rapid expansion phase continues for sometime, both factors (like labour and land) and non factors (e.g. raw materials) tend to get exhausted causing supply bottlenecks. Wages and interest rates rise escalating costs and squeezing profit margins. This slows down the rate of growth of output and income. This sets the accelerator in action. A slowdown in output growth causes a fall in investment in new plant and machinery. This causes a fall in the output and employment in capital goods industries. It results in fall in income and consumer demand. This would lead to **excess capacity** among firms causing further reduction in investment demand. The process will continue till the growth momentum is broken or hits the ceiling.

Similarly, a rapid contraction process passing through recession comes to an end. As the combined multiplier-accelerator action takes an economy into deep recession or depression, certain endogenous forces come into play to stop the free fall. Even in deep recession, a minimum force of aggregate demand remains. In spite of low income, the household sector spends on the basic necessities and even tries to maintain living standard by drawing upon past savings or even availing debt. A part of the sector even receives social security payments (like unemployment allowance). Governments often adopt expansionary fiscal policy to revive aggregate demand. In the business sector, some investment continues to take place to replace obsolete or worn out capital. There could even be new investment based on some new innovations or new business opportunities. These factors set the lower limit (floor) below which output or income does not fall. As the falling economy gets near to this minimum level, the negative effect of the combined multiplier accelerator action is considerably weakened. The economy may remain settled in the low-level equilibrium for quite a long period till the pre-conditions of recovery are built and sustained.

### Upper and Lower Turning Points

Turning points in a business cycle are created when expansion is turned into contraction (upper turning point) or contraction is turned into expansion (lower turning point). To understand this, we will have to look into the behaviour of accelerator more closely. Recall that in accelerator mechanism, it is new investment (rather than investment for the replacement of worn-out capital) that depends upon the rate of change of output or income. If income increases at a constant rate, then investment will be maintained at the same level. If income increases at a declining rate, the level of investment will fall. And, if income rises at an increasing rate, then level of investment also rise. The three combinations are shown in **Figure 9.5**.

**FIGURE 9.5**



When output rises along  $GDP_1$  (constant rate of growth), investment level is constant at  $I_1$ . When output increases at a decreasing rate, investment falls along  $I_2$ , depending upon the value of the accelerator co-efficient. Finally, when income grows at an increasing rate along  $GDP_3$ , investment level increase along  $I_3$ , with time. During the expansionary phase when the growth rate of output or income slackens due to the supply constraints, the level of investment falls.

*As income tends to reach the ceiling (with falling rate of growth), investment (following acceleration principle) falls which, through multiplier action, causes income to fall. This explains the upper turning point of the cycle where expansion turns into contraction. Similarly at trough or depression, due to the force of replacement investment demand or rise in government expenditure under expansionary fiscal policy, multiplier comes into action and raises the level of income. This*

*explains the lower turning point. The rise in income activates the accelerator mechanism and the twin forces in unison take the economy on the expansion path.*

## POLICY-INDUCED CYCLES

Inducing a business cycle is never the goal of macroeconomic policy. But a business cycle could be produced (rather unwittingly) when the policy is directed to solve specific problems of the economy. Quite often, governments increase public investment and other expenditure in periods of recession and unemployment in order to revive sagging demand. If the additional public expenditure requirements are not properly estimated, an overdose of expenditure may be given and the government may fail to withdraw expenditure therapy even when the economy expands fast under multiplier-accelerator interaction. The presence of demand coupled with supply constraints may soon land the economy in an inflationary situation.

Now the fiscal policy stance is reversed to deal with inflation. Cuts in public expenditure could be coupled with taxes and public borrowings to deflate aggregate demand. If government intervention is large, this therapy may trigger an economy-wide contractionary trend. An over-application of the therapy may push the economy again into recession. Much, of course, will depend on the extent of government intervention in relation to the size of the economy and the response of the latter to policy shocks of the government.

A business cycle could also be the unintended consequence of an ill-timed stabilization policy. Generally, macroeconomic policy involves a time lag before it impacts the economy. It is likely that the government plans an anti-inflationary policy in a period of expansion. Under the policy, say, taxes are increased and government expenditure is lowered. But by the time policy, after implementation, is at the time point of showing effect, the economy, by virtue of endogenous forces, might have already entered the period of recession after hitting the ceiling. *The policy will prove disastrous in that it will accelerate the contractionary process. It will be like giving a anti-high blood pressure medicine to a low blood pressure patient.* Such ill-timed policies can magnify small variations in GDP in income into full-fledged business cycles.

## POLITICAL BUSINESS CYCLES

These are the upswings and downswings in economic activity triggered by public policy actions that are politically motivated. In pre-election periods, governments in power are known to step up public expenditure significantly to benefit the larger voter groups in an unusual manner. The expenditure could take the form of welfare projects, infrastructure investments, new public works or direct employment generation programmes. After the government comes in power, there would be sudden decline in public expenditure and investment. Such politically-motivated trends in public expenditure can produce cyclical fluctuations in an economy.

## IMPORTED CYCLICAL FLUCTUATIONS

This approach emphasizes exogenous factors as the triggers of business cycles. According to this approach, an economy could be the victim of cyclical fluctuations arising from abroad but transmitted to the economy through its global economic linkages. The greater the openness of an economy, the greater is the probability that variations in economic conditions abroad will be

imported into the economy through various trade and investment routes. A fall in income in the major trading partners of a country would lead to substantial fall in its exports causing a fall in the aggregate demand and income of the country. Similarly, business recession abroad may lead to a fall in business income, which may reduce the inflow of foreign direct investment. A cut in the interest rate in a large developed country like the USA induces similar cuts in other countries with whom it is in a business relationship. Thus, in a globally integrating world, economic fluctuations tends to be transmitted globally.

## CONCLUSION

A successful business manager must be able to understand the cyclical phenomena and read the early warning signals of cyclical variations. This requires close monitoring of the key macroeconomic variables as well the developments in the international economy. In economies with high level of globalisation, trade cycles tend to get transmitted internationally. The firms which are not able to foresee such movements find subsequent adjustment processes painful and costly and can face substantial erosion of their competitiveness and market power. A professional business economist can provide valuable inputs to corporate management in this regard.

### Key Terms

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Acceleration principle	Credit-deposit ratio	Peak
Balance of payments	Depression	Recession
Boom	Excess capacity	Recovery
Business cycle	Infrastructure	Transaction demand for money
Capacity utilisation	Inventory	Trough
Crash	Money supply	Working capital

### Supplementary Readings

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### Long Questions

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1. Explain the nature of a business cycle. What are the main approaches to the business cycle theory?
2. What is multiplier-accelerator interaction? How can it be used to explain business cycles?
3. What are policy-induced cycles? What measures would you suggest to control such cycles?
4. Are business cycles a monetary phenomenon? How would you link fluctuations in aggregate output to variations in money and credit supply?
5. What are the different phases of a business cycle? Explain the main factors that can produce business cycles.
6. Why is understanding of a business cycle important for a business manager? What should be the general design of business policy in a period of recession?
7. Can business cycles be anticipated? What are the warning signals of recession and depression?

### Short Questions

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1. Name three factors that can possibly trigger a business cycle.
2. Give three main features of recession.
3. What is the purpose of a business cycle theory?
4. Define amplitude and frequency of a business cycle.
5. How can a business manager foretell a recession?
6. Give three leading characteristics of an economy in depression.
7. Show graphically regular, damped and explosive business cycles.
8. Give three characteristics of each of the following:  
(a) Peak (b) Trough (c) Crash (d) Revival (e) Boom (f) Recovery.
9. Define and exemplify the acceleration principle.
10. Give two sources of imported cyclical fluctuations.
11. Why should a business manager understand the nature and causes of business cycles?
12. How can a business manager anticipate a recession? Are there any warning signals?
13. How are the turning points in a business cycle caused?
14. Explain the process of expansion leading to the peak in a business cycle.
15. What factors may cause a market crash? How does the cumulative contraction process set in after that?
16. Explain the essence of monetary approach to the business cycle theory.
17. Explain the various marketing opportunities unfolded by the expansionary phase of a business cycle.

### Practical Assignments

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1. Collect data on key macroeconomic variables on Indian economy since 1991. Identify the time period in which some cyclical variations are visible. Organise a debate on the genuineness of the observations.
2. Identify the major sectors of the economy that are reeling under recessionary conditions. Let three persons, one representing the Finance Minister, second a distinguished industry association representative and the third a labour leader, hold a panel discussion (followed by an open house) on '*how to bring the sectors out of recession?*'
3. Organise a brainstorming session on the competitive strategy of a firm directly affected by the contractionary phase of a business cycle.
4. Identify the domestic industrial segments which are facing recessionary conditions due to import liberalisation.

