ENGINEERING ECONOMICS
UNIT 3

What is Economic Growth?

Economic growth can be referred to as the increase that is witnessed in the monetary value of all the goods and services produced in the economy during a time period. It is a type of quantitative measure that reflects the potential increase in the number of business transactions taking place in the economy.

It can be measured in terms of the increase in the aggregate market value of additional goods and services produced by using economic concepts such as GDP and GNP.

Economic growth is a narrow concept when compared to economic development.

What is Economic Development?

Economic development refers to the process by which the overall health, well-being, and academic level of the general population of a nation improves. It also refers to the improved production volume due to the advancements of technology.

It is the qualitative improvement in the life of the citizens of a country and is most appropriately determined by the Human Development Index (HDI). The overall development of a country is based on many parameters such as the creation of job opportunities, technological advancements, standard of living, living conditions, per capita income, quality of life, improvement in self-esteem needs, GDP, industrial and infrastructural development, etc.

Economic Growth vs Economic Development

Basis of Comparison	Economic Growth	Economic Development
Meaning	Economic growth is defined as an increase in the country's real output of goods and services.	Economic development entails changes in income, savings, and investment, as well as gradual changes in the country's socio-economic structure (institutional and technological changes).
Factors	Growth is defined as a gradual increase in one of the components of GDP: consumption, government spending, investment, and net exports.	Development related to human capital growth, a reduction in inequality numbers, and structural changes that improve the population's quality of life.
Measurement/ Example	Economic growth is measured quantitatively by factors such as real GDP growth or per capita income growth.	To assess economic development, qualitative indicators such as the HDI (Human Development Index), gender-related indexes, Human Poverty Index (HPI), infant mortality, literacy rate, and so on are used.
Effect	Quantitative changes in the economy are brought about by economic growth.	Economic development results in both qualitative and quantitative changes in the economy.
Relevance	Economic growth reflects national or per capita income growth.	Economic development reflects progress in a country's quality of life.

Why Economic Growth and Economic Development are important?

- Economic growth is a widely used term in economics that is useful not only for national-level economic analyses and policymaking but also for comparative economics.
- International financial and commercial institutions base policymaking and future financial planning on the available growth rate data for the world's economies.
- The most important aspect of growth is its **quantifiability**, or the ability to quantify it in absolute terms.

- Just as we need to make conscious efforts to increase our income and growth, we also need to make conscious efforts to increase our economic development and higher economic development.
- Development has not been possible anywhere in the world without a **conscious public policy**.
- Similarly, we can say that there can be no development without growth.
- If economic growth is used properly for development, it will re-accelerate growth and eventually bring a larger population into the development arena.
- Similarly, high growth with low development leads to a decline in growth.

A business cycle, sometimes called a "trade cycle" or "economic cycle," refers to a series of stages in the economy as it expands and contracts. Constantly repeating, it is primarily measured by the rise and fall of gross domestic product (GDP) in a country.

Business cycles are universal to all nations that have capitalistic economies. All such economies will experience these natural periods of growth and decline, though not all at the same time. However, given the increased globalization, business cycles across countries tend to synchronize more often than they did before.

Understanding the different phases of a business cycle can help individuals make lifestyle decisions, investors make financial decisions, and governments make appropriate policy decisions.

Stages of a business cycle

Think of business cycles like the tides: a natural, never-ending ebb and flow from high tide to low tide and back again. And the same way the waves can suddenly seem to surge even when the tide's going out or seem low when the tide's coming in, there can be interim, contrarian bumps — either up or down — in the midst of a particular phase.

Expansion: Expansion, considered the "normal" — or at least, the most desirable — state of the economy, is an up period. During an expansion, businesses and companies steadily grow their production and profits, unemployment remains low, and the stock market performs well. Consumers are buying and investing, and with this increasing ›demand for goods and services, prices begin to rise too.

Peak: The economy starts growing out of control once these numbers start to increase out of their healthy ranges. Any number of factors can throw the economy off balance. Companies may be expanding recklessly. Investors might become overconfident, buying up assets and significantly increasing their prices, which are not supported by their underlying value, creating an asset bubble. Everything starts to cost too much.

The peak marks the climax of all this feverish activity when the expansion has reached its end and indicates that production and prices have reached their limit. This is the turning point: With no room for growth left, there's nowhere to go but down. A contraction is forthcoming.

Contraction: A contraction spans the length of time from the peak to the trough. It's the period when economic activity is on the way down. During a contraction, unemployment numbers typically spike, stocks enter a bear market, and GDP growth is below 2%, indicating that businesses have cut back their activities.

When the GDP has declined for two consecutive quarters, the economy is often considered to be in a recession. Even after a recession is officially over, that doesn't mean that the economy has returned to its original shape and size.

Trough: IF the peak is the cycle's high point, the trough is its low point. It occurs when the recession, or contraction phase, bottoms out and starts to rebound into an expansion phase — and the business cycle starts all over again. The rebound is not always quick, nor is it a straight line, along the way toward full economic recovery. The most recent trough was in April 2020.

Business cycles vs. market cycles

Though often used interchangeably, a business cycle is technically different from a market cycle. A market cycle specifically refers to the different growth and decline stages of the stock market, while the business cycle reflects the economy as a whole.

But the two are definitely related. The stock market is greatly influenced by the phases of a business cycle and generally mirrors its stages. During the contractionary phase of a cycle, investors sell their holdings, depressing stock prices — a bear market. In the expansionary phase, the opposite occurs: Investors go on a buying spree, causing stock prices to rise — a bull market.

How long does a business cycle last?

Business cycles have no defined time frames. A business cycle can be short, lasting a few months, or long, lasting several years. Generally, periods of expansion are more prolonged than periods of contraction, but the actual lengths can vary. Since the end of World War II, the average period of expansion in the US lasted 65 months, and the average contraction lasted about 11 months, according to the Congressional Research Service.

What factors shape a business cycle?

From technological innovations to wars, a variety of things can shift a business cycle's phases. But, according to the Congressional Research Service, the key influence boils down to the aggregate supply and demand within an economy — economist-speak for the total spending that individuals and companies do. When that demands decreases, a contraction occurs. Likewise, when demand increases, an expansion occurs.

How supply and demand drives the business cycle

- **In the beginning:** The *expansion* happens because consumers are confident in the economy. They believe that employment is steady and income is guaranteed. As a result, they spend more, which leads to increased demand, which leads to businesses hiring more employees, and increasing capital expenditures to meet that demand. Investors allocate more capital to assets, increasing stock prices.
- **Getting overheated:** The expansionary phase hits a *peak* when the demand is greater than the supply, and businesses take on additional risks to meet increased demand and remain competitive.
- **Scaling back:** When interest rates rise quickly, inflation increases too fast, or a financial crisis occurs, an economy enters a *contraction*. The confidence that stimulated demand quickly evaporates, replaced with dwindling consumer confidence. Individuals save money rather than spend, reducing demand, and businesses cut production and lay off employees as their sales dry up. Investors sell stocks to avoid a drop in the value of their portfolios, which further drops stock prices.
- **Hitting bottom:** During the *trough* phase, demand and production are at their lowest point. But eventually, needs reassert themselves. Consumers slowly start to gain confidence as production and business activity start to improve, often spurred on by government policies and action. They begin to buy and invest, and the economy reenters the expansion phase.

How governments influence business cycles

The fact that business cycles move in natural phases doesn't mean they can't be influenced. Countries can and do try to manage the various stages — slowing them down or speeding them up — using monetary policy and fiscal policy. Fiscal policy is carried out by the government; monetary policy is carried out by a nation's central bank.

For example, when an economy is in a contraction, particularly a recession, governments use expansionary fiscal policy, which consists of increasing expenditures on government projects or cutting taxes. These moves provide increased levels of disposable income that consumers can spend, which in turn stimulates economic growth.

Similarly, a central bank — like the Federal Reserve in the US — will use an expansionary monetary policy to end a contractionary period by reducing interest rates, which makes borrowing money cheaper, thus stimulating spending, and eventually the economy.

If an economy is growing too fast, governments will employ a contractionary monetary policy, which involves cutting spending and increasing taxes. This reduces the amount of disposable income to spend, slowing things down. To employ a contractionary monetary policy, a central bank will increase interest rates, making borrowing more expensive and therefore spending money less attractive.

Business Cycle in Economics Explained

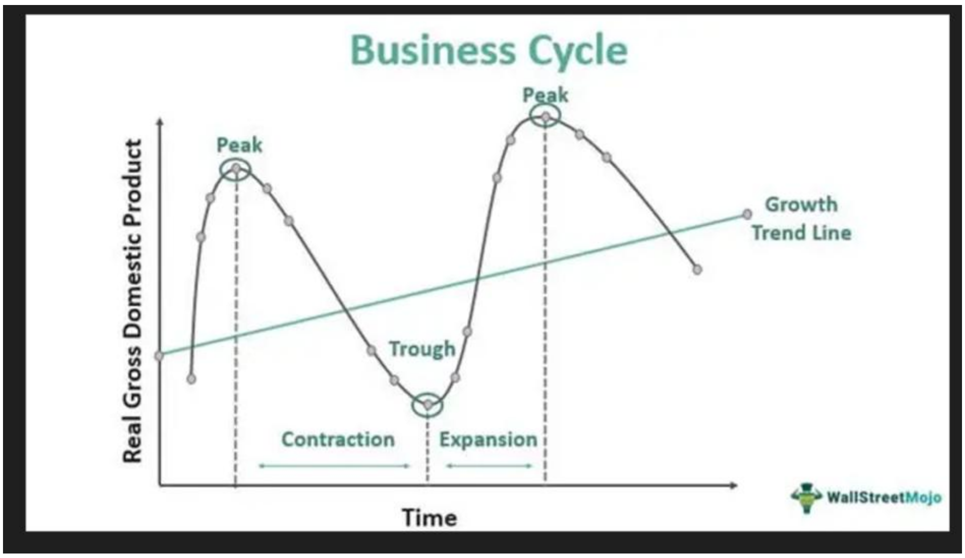
A business cycle is a macroeconomic oscillation that affects the nation's growth and productivity. They are also called **trade cycles or economic cycles**. NBER is a US-based non-profit organization. It is a private non-partisan research organization. The National Bureau of Economic Research (NBER) identifies and gauges the economic cycle. It has a Business Cycle Dating Committee responsible for keeping the chronological record of the economic stages. To determine economic conditions NBER uses the following parameters; GDP, production, employment, aggregate demand, real income, and consumer spending.

Every capitalist economy repeatedly goes through the different phases of the business cycle, i.e., expansion, peak, contraction, and trough. Although these ups and downs in the economy may correct by themselves in the long run, the government and the central bank use economic policies to reduce the impact of trade cycle fluctuations. At the same time, the central bank can inject expansionary or **contractionary monetary policies** like interest rate changes or supply of money. Further, to mitigate fluctuations, the government uses **fiscal policy** tools like tax rates and government spending. These measures are taken to avoid risky situations like **stagflation** or **hyperinflation**.

Business Cycle Phases with Graph

A country keeps track of the trade cycle to ensure that the economy is on the path of growth, unemployment steeps down, and the **inflation rate** remains under control. To understand the economic fluctuations and pattern, let us have a look at the following graph:
An economy is expected to have constant growth, represented by the growth trend line. In reality, though, the economy is unstable. National output goes up and down periodically. It expands to touch the peak and contracts down to the trough.

Thus, a trade cycle consists of the following four phases:



1. **Expansion**: When a nation's **GDP** shows an upward move or recovers with time, this period of growth is remarked as economic expansion. During this phase, the various **economic indicators** like consumer spending, income, demand, supply, employment, output, and business returns shoot up.
2. **Peak**: During the expansion phase, the GDP spikes to its highest level; this is considered the economy's peak. At this point, **economic factors** like income, consumer spending, and employment level remain constant.
3. **Contraction**: Next comes the phase of economic slowdown; it occurs when the stagnant peak GDP starts tumbling down towards the trough. With this, the nation's production, employment level, demand, supply, income level, and other economic parameters plummet.
4. **Trough**: This is the stage at which the GDP and other economic indicators are at their lowest. During this phase, the economy gets stuck at a negative growth rate. Additionally, the demand for goods and services reduces.

Limitations

Predicting the business cycle phase is crucial for policymakers and governments so that they can deal with deflation and inflation accordingly. The cycle also warns investors, owners, consumers, and strategists. However, the following are the disadvantages associated with the business cycle:

- **Limited Information**: Since the economic cycle analysis is based on research, it becomes difficult for economists to access complete and accurate data. Moreover, the process of correlating and interpreting acquired information is equally challenging.
- **Two Contrasting Models**: The Keynesian theories consider money supply to be the important factor behind fluctuations. But the Real Business Cycle theory opposes this concept and proposes that market imperfection is the important factor behind fluctuations.
- **Human Glitch**: Economic researchers are humans; they are the ones who study trade cycle trends and present economic indicators that cause the trend. Thus, this analysis is prone to human errors.

INFLATION: MEANING

Inflation is defined as a rise in the cost of most everyday items and services, such as food, clothing, housing, recreation, transportation, consumer staples, and so on. The average change in the price of a basket of goods and services over time is referred to as inflation.
Deflation is the opposite of inflation, and it refers to a decrease in the price index of this group of commodities. Inflation is defined as a decrease in a country's currency unit's purchasing power. As a percentage, this is calculated.

INFLATION: EFFECTS

The purchasing power of a currency unit decreases when commodities and services grow more expensive. This has an impact on the cost of living in a country. When inflation is high, the cost of living rises along with it, causing economic growth to decrease. A certain level of inflation is required in the economy in order to encourage spending while discouraging conserving.

Because money depreciates in value over time, it is vital for people to invest their funds. Investing is essential for a country's economic development.

WHO MEASURE IT?
A central government organization in charge of enacting policies to keep the economy functioning smoothly keeps track of inflation. In India, the Ministry of Statistics and Programme Implementation monitors inflation.

1. Meaning of Inflation

To the neo-classical and their followers at the University of Chicago, inflation is fundamentally a monetary phenomenon. In the words of Friedman, "Inflation is always and everywhere a monetary phenomenon…and can be produced only by a more rapid increase in the quantity of money than output.'" But 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.” Economists, therefore, define inflation in terms of a continuous rise in prices. Johnson defines “inflation as a sustained rise”[4] in prices. Brooman defines it as “a continuing increase in the general price level.”[5] Shapiro also defines inflation in a similar vein “as a persistent and appreciable rise in the general level of prices.” Demberg and McDougall are more explicit when they write that “the term usually refers to a continuing rise in prices as measured by an index such as the consumer price index (CPI) or by the implicit price deflator for gross national product.”

However, it is essential to understand that a sustained rise in prices may be of various magnitudes. Accordingly, different names have been given to inflation depending upon the rate of rise in prices.

1. Creeping Inflation:

When the rise in prices is very slow like that of a snail or creeper, it is called creeping inflation. In terms of speed, a sustained rise in prices of annual increase of less than 3 per cent per annum is characterized as creeping inflation. Such an increase in prices is regarded safe and essential for economic growth.

2. Walking or Trotting Inflation:

When prices rise moderately and the annual inflation rate is a single digit. In other words, the rate of rise in prices is in the intermediate range of 3 to 6 per cent per annum or less than 10 per cent. Inflation at this rate is a warning signal for the government to control it before it turns into running inflation.

3. Running Inflation:

When prices rise rapidly like the running of a horse at a rate or speed of 10 to 20 per cent per annum, it is called running inflation. Such an inflation affects the poor and middle classes adversely. Its control requires strong monetary and fiscal measures, otherwise it leads to hyperinflation.

4. Hyperinflation:

When prices rise very fast at double or triple digit rates from more than 20 to 100 per cent per annum or more, it is usually called runaway ox galloping inflation. It is also characterised as hyperinflation by certain economists. In reality, hyperinflation is a situation when the rate of inflation becomes immeasurable and absolutely uncontrollable. Prices rise many times every day. Such a situation brings a total collapse of monetary system because of the continuous fall in the purchasing power of money.

5. Semi-Inflation:

According to Keynes, so long as there are unemployed resources, the general price level will not rise as output increases. But a large increase in aggregate expenditure will face shortages of supplies of some factors which may not be substitutable. This may lead to increase in costs, and prices start rising. This is known as semi-inflation or bottleneck inflation because of the bottlenecks in supplies of some factors.

6. True Inflation:

According to Keynes, when the economy reaches the level of full employment, any increase in aggregate expenditure will raise the price level in the same proportion. This is because it is not possible to increase the supply of factors of production and hence of output after the level of full employment. This is called true inflation.

7. Open Inflation:

Inflation is open when “markets for goods or factors of production are allowed to function freely, setting prices of goods and factors without normal interference by the authorities. Thus open inflation is the result of the uninterrupted operation of the market mechanism. There are no checks or controls on the distribution of commodities by the government. Increase in demand and shortage of supplies persist which tend to lead to open inflation. Unchecked open inflation ultimately leads to hyperinflation.

8. Stagflation:

Stagflation is a new term which has been added to economic literature in the 1970s. It is a paradoxical phenomenon where the economy expedience's stagnation as well as inflation. The word stagflation is the combination of' stag' plus 'flation' taking 'stag' from stagnation and 'flation' from inflation.

Stagflation is a situation when recession is accompanied by a high rate of inflation. It is, therefore, also called inflationary recession. The principal cause of this phenomenon has been excessive demand in commodity markets, thereby causing prices to rise, and at the same time the demand for labour is deficient, thereby creating unemployment in the economy.

Three factors have been responsible for the existence of stagflation in the advanced countries since 1972. First, rise in oil prices and other commodity prices along with adverse changes in the terms of trade, second, the steady and substantial growth of the labour force; and third, rigidities in the wage structure due to strong trade unions.

13. Reflation:

Is a situation when prices are raised deliberately in order to encourage economic activity. When there is depression and prices fall abnormally low, the monetary authority adopts measures to put more money in circulation so that prices rise. This is called reflation.

Demand-Pull Inflation

Demand-Pull or excess demand inflation is a situation often described as *"too much money chasing too few goods."* According to this theory, an excess of aggregate demand over aggregate supply will generate inflationary rise in prices. Its earliest explanation is to be found in the simple quantity theory of money.

The theory states that prices rise in proportion to the increase in the money supply. Given the full employment level of output, doubling the money supply will double the price level. So inflation proceeds at the same rate at which the money supply expands.

In this analysis, the aggregate supply is assumed to be fixed and there is always full employment in the economy. **Naturally, when the money supply increases it creates more demand for goods but the supply of goods cannot be increased due to the full employment of resources. This leads to rise in prices.**

Modern quantity theorists led by Friedman hold that "inflation is always and everywhere a monetary phenomenon. **The higher the growth rate of the nominal money supply, the higher the rate of inflation.** When the money supply increases, people spend more in relation to the available supply of goods and services. This bids prices up. Modem quantity theorists neither assume full employment as a normal situation nor a stable velocity of money. Still they regard inflation as the result of excessive increase in the money supply.

Cost-Push Inflation

Cost-push inflation is caused by wage increases enforced by unions and profit increases by employers. This type of inflation has not been a new phenomenon and was found even during the medieval period. But it was revived in the 1950s and again in the 1970s as the principal cause of inflation. It also came to be known as the "New Inflation."

Cost-push inflation is caused by wage-push and profit-push to prices for the following reasons:

1. Rise in Wages:

The basis cause of cost-push inflation is the rise in money wages more rapidly than the productivity of labour. In advanced countries, trade unions are very powerful. They press employers to grant wage increases considerably in excess of increases in the productivity of labour, thereby raising the cost of production of commodities. Employers, in turn, raise prices of their products.

Higher wages enable workers to buy as much as before, in spite of higher prices. On the other hand, the increase in prices induces unions to demand still higher wages. In this way, the wage-cost spiral continues, thereby leading to cost-push or wage-push inflation. Cost-push inflation may be further aggravated by upward adjustment of wages to compensate for rise in the cost of living index.

2. Sectoral Rise in Prices:

Again, a few sectors of the economy may be affected by money wage increases and prices of their products may be rising. In many cases, their production such as steel, raw materials, etc. are used as inputs for the production of commodities in other sectors. As a result, the production cost of other sectors will rise and thereby push up the prices of their products. Thus wage- push inflation in a few sectors of the economy may soon lead to inflationary rise in prices in the entire economy.

3. Rise in Prices of Imported Raw Materials:

An increase in the prices of imported raw materials may lead to cost-push inflation. Since raw materials are used as inputs by the manufacturers of the finished goods, they enter into the cost of production of the latter. Thus a continuous rise in the prices of raw materials tends to sets off a cost-price-wage spiral.

4. Profit-Push Inflation:

Oligopolist and monopolist firms raise the prices of their products to offset the rise in labour and production costs so as to earn higher profits. There being imperfect competition in the case of such firms, they are able to "administer prices" of their products. "In an economy in which so called administered prices abound there is at least the possibility that these prices may be administered upward faster than cost in an attempt to earn greater profits.

4. The Inflationary Gap

In his pamphlet How to pay for the War published in 1940, Keynes explained the concept of the inflationary gap. It differs from his views on inflation given in his General Theory. In the General Theory, he started with underemployment equilibrium. But in How to Pay for the War, he began with a situation of full employment in the economy.

He defined an inflationary gap as an excess of planned expenditure over the available output at pre-inflation or base prices. According to Lipsey, "The inflationary gap is the amount by which aggregate expenditure would exceed aggregate output at the full employment level of income." The classical economists explained inflation as mainly due to increase in the quantity of money, given the level of full employment.

Keynes, on the other hand, ascribed it to the excess of expenditure over income at the full employment level. The larger the aggregate expenditure, the larger the gap and the more rapid the inflation. Given a constant average propensity to save, rising money incomes at full employment level would lead to an excess of demand over supply and to a consequent inflationary gap. Thus Keynes used the concept of the inflationary gap to show the main determinants that cause an inflationary rise of prices.

How can the inflationary gap be wiped out?

The inflationary gap can be wiped out by increase in savings so that the aggregate demand is reduced. But this may lead to deflationary tendencies.

Another solution is to raise the value of available output to match the disposable income. As aggregate demand increases, businessmen hire more labour to expand output. But there being full employment at the current money age, they offer higher money wages to induce more workers to work for them.

As there is already full employment, the increase in money wages leads to proportionate rise in prices. Moreover, output cannot be increased during the short run because factors are already fully employed. So the inflationary gap can be closed by increasing taxes and reducing expenditure. Monetary policy can also be used to decrease the money stock. But Keynes was not in favour of monetary measures to control inflationary pressures within the economy.

6. Causes of Inflation

Inflation is caused when the aggregate demand exceeds the aggregate supply of goods and services. We analyse the factors which lead to increase in demand and the shortage of supply.

Factors Affecting Demand:

Both Keynesians and monetarists believe that inflation is caused by increase in the aggregate demand.

They point towards the following factors which raise it.

1. Increase in Money Supply:

Inflation is caused by an increase in the supply of money which leads to increase in aggregate demand. The higher the growth rate of the nominal money supply, the higher is the rate of inflation. Modem quantity theorists do not believe that true inflation starts after the full employment level. This view is realistic because all advanced countries are faced with high levels of unemployment and high rates of inflation.

2. Increase in Disposable Income:

When the disposable income of the people increases, it raises their demand for goods and services. Disposable income may increase with the rise in national income or reduction in taxes or reduction in the saving of the people.

3. Increase in Public Expenditure:

Government activities have been expanding much with the result that government expenditure has also been increasing at a phenomenal rate, thereby raising aggregate demand for goods and services. Governments of both developed and developing countries are providing more facilities under public utilities and social services, and also nationalising industries and starting public enterprises with the result that they help in increasing aggregate demand.

4. Increase in Consumer Spending:

The demand for goods and services increases when consumer expenditure increases. Consumers may spend more due to conspicuous consumption or demonstration effect. They may also spend more whey they are given credit facilities to buy goods on hire-purchase and instalment basis.

5. Cheap Monetary Policy:

Cheap monetary policy or the policy of credit expansion also leads to increase in the money supply which raises the demand for goods and services in the economy. When credit expands, it raises the money income of the borrowers which, in turn, raises aggregate demand relative to supply, thereby leading to inflation. This is also known as credit-induced inflation.

6. Deficit Financing:

In order to meet its mounting expenses, the government resorts to deficit financing by borrowing from the public and even by printing more notes. This raises aggregate demand in relation to aggregate supply, thereby leading to inflationary rise in prices. This is also known as deficit-induced inflation.

7. Expansion of the Private Sector:

The expansion of the private sector also tends to raise the aggregate demand. For huge investments increase employment and income, thereby creating more demand for goods and services. But it takes time for the output to enter the market.

8. Black Money:

The existence of black money in all countries due to corruption, tax evasion etc. increases the aggregate demand. People spend such unearned money extravagantly, thereby creating unnecessary demand for commodities. This tends to raise the price level further.

9. Repayment of Public Debt:

Whenever the government repays its past internal debt to the public, it leads to increase in the money supply with the public. This tends to raise the aggregate demand for goods and services.

10. Increase in Exports:

When the demand for domestically produced goods increases in foreign countries, this raises the earnings of industries producing export commodities. These, in turn, create more demand for goods and services within the economy.

Factors Affecting Supply:

There are also certain factors which operate on the opposite side and tend to reduce the aggregate supply.

Some of the factors are as follows:

1. Shortage of Factors of Production:

One of the important causes affecting the supplies of goods is the shortage of such factors as labour, raw materials, power supply, capital, etc. They lead to excess capacity and reduction in industrial production.

2. Industrial Disputes:

In countries where trade unions are powerful, they also help in curtailing production. Trade unions resort to strikes and if they happen to be unreasonable from the employers' viewpoint' and are prolonged, they force the employers to declare lock-outs. In both cases, industrial production falls, thereby reducing supplies of goods. If the unions succeed in raising money wages of their members to a very high level than the productivity of labour, this also tends to reduce production and supplies of goods.

3. Natural Calamities:

Drought or floods is a factor which adversely affects the supplies of agricultural products. The latter, in turn, create shortages of food products and raw materials, thereby helping inflationary pressures.

4. Artificial Scarcities:

Artificial scarcities are created by hoarders and speculators who indulge in black marketing. Thus they are instrumental in reducing supplies of goods and raising their prices.

5. Increase in Exports:

When the country produces more goods for export than for domestic consumption, this creates shortages of goods in the domestic market. This leads to inflation in the economy.

6. Lop-sided Production:

If the stress is on the production of comforts, luxuries, or basic products to the neglect of essential consumer goods in the country, this creates shortages of consumer goods. This again causes inflation.

7. Law of Diminishing Returns:

If industries in the country are using old machines and outmoded methods of production, the law of diminishing returns operates. This raises cost per unit of production, thereby raising the prices of products.

8. International Factors:

In modern times, inflation is a worldwide phenomenon. When prices rise in major industrial countries, their effects spread to almost all countries with which they have trade relations. Often the rise in the price of a basic raw material like petrol in the international market leads to rise in the price of all related commodities in a country.

7. Measures to Control Inflation

We have studied above that inflation is caused by the failure of aggregate supply to equal the increase in aggregate demand. Inflation can, therefore, be controlled by increasing the supplies and reducing money incomes in order to control aggregate demand.

The various methods are usually grouped under three heads:

Monetary measures, fiscal measures and other measures.

1. Monetary Measures:

Monetary measures aim at reducing money incomes.

(a) Credit Control:

One of the important monetary measures is monetary policy. The central bank of the country adopts a number of methods to control the quantity and quality of credit. For this purpose, it raises the bank rates, sells securities in the open market, raises the reserved ratio, and adopts a number of selective credit control measures, such as raising margin requirements and regulating consumer credit.

Monetary policy may not be effective in controlling inflation, if inflation is due to cost-push factors. Monetary policy can only be helpful in controlling inflation due to demand-pull factors.

(b) Demonetization of Currency:

However, one of the monetary measures is to demonetize currency of higher denominations. Such a measure is usually adopted when there is abundance of black money in the country.

(c) Issue of New Currency:

The most extreme monetary measure is the issue of new currency in place of the old currency. Under this system, one new note is exchanged for a number of notes of the old currency. The value of bank deposits is also fixed accordingly. Such a measure is adopted when there is an excessive issue of notes and there is hyperinflation in the country. It is a very effective measure. But is inequitable for it hurts the small depositors the most.

2. Fiscal Measures:

Monetary policy alone is incapable of controlling inflation. It should, therefore, be supplemented by fiscal measures. Fiscal measures are highly effective for controlling government expenditure, personal consumption expenditure, and private and public investment.

The principal fiscal measures are the following:

(a) Reduction in Unnecessary Expenditure:

The government should reduce unnecessary expenditure on non-development activities in order to curb inflation. This will also put a check on private expenditure which is dependent upon government demand for goods and services. But it is not easy to cut government expenditure. Though economy measures are always welcome but it becomes difficult to distinguish between essential and non-essential expenditure. Therefore, this measure should be supplemented by taxation.

(b) Increase in Taxes:

To cut personal consumption expenditure, the rates of personal, corporate and commodity taxes should be raised and even new taxes should be levied, but the rates of taxes should not be so high as to discourage saving, investment and production. Rather, the tax system should provide larger incentives to those who save, invest and produce more.

Further, to bring more revenue into the tax-net, the government should penalise the tax evaders by imposing heavy fines. Such measures are bound to be effective in controlling inflation. To increase the supply of goods within the country, the government should reduce import duties and increase export duties.

(c) Increase in Savings:

Another measure is to increase savings on the part of the people. This will tend to reduce disposable income with the people, and hence personal consumption expenditure. But due to the rising cost of living, people are not in a position to save much voluntarily. Keynes, therefore, advocated compulsory savings or what he called 'deferred payment' where the saver gets his money back after some years.

For this purpose, the government should float public loans carrying high rates of interest, start saving schemes with prize money, or lottery for long periods, etc. It should also introduce compulsory provident fund, provident fund-cum-pension schemes, etc. compulsorily. All such measures to increase savings are likely to be effective in controlling inflation.

(d) Surplus Budgets:

An important measure is to adopt anti-inflationary budgetary policy. For this purpose, the government should give up deficit financing and instead have surplus budgets. It means collecting more in revenues and spending less.

(e) Public Debt:

At the same time, it should stop repayment of public debt and postpone it to some future date till inflationary pressures are controlled within the economy. Instead, the government should borrow more to reduce money supply with the public.

Like the monetary measures, fiscal measures alone cannot help in controlling inflation. They should be supplemented by monetary, non-monetary and non-fiscal measures.

3. Other Measures:

The other types of measures are those which aim at increasing aggregate supply and reducing aggregate demand directly:

(a) To Increase Production:

The following measures should be adopted to increase production:

(i) One of the foremost measures to control inflation is to increase the production of essential consumer goods like food, clothing, kerosene oil, sugar, vegetable oils, etc.

(ii) If there is need, raw materials for such products may be imported on preferential basis to increase the production of essential commodities.

(iii) Efforts should also be made to increase productivity. For this purpose, industrial peace should be maintained through agreements with trade unions, binding them not to resort to strikes for some time.

(iv) The policy of rationalisation of industries should be adopted as a long-term measure. Rationalisation increases productivity and production of industries through the use of brain, brawn and bullion.

(v) All possible help in the form of latest technology, raw materials, financial help, subsidies, etc. should be provided to different consumer goods sectors to increase production.

(b) Rational Wage Policy:

Another important measure is to adopt a rational wage and income policy. Under hyperinflation, there is a wage-price spiral. To control this, the government should freeze wages, incomes, profits, dividends, bonus, etc. But such a drastic measure can only be adopted for a short period and by antagonising both workers and industrialists. Therefore, the best course is to link increase in wages to increase in productivity. This will have a dual effect. It will control wages and at the same time increase productivity, and hence increase production of goods in the economy.

(c) Price Control:

Price control and rationing is another measure of direct control to check inflation. Price control means fixing an upper limit for the prices of essential consumer goods. They are the maximum prices fixed by law and anybody charging more than these prices is punished by law. But it is difficult to administer price control.

(d) Rationing:

Rationing aims at distributing consumption of scarce goods so as to make them available to a large number of consumers. It is applied to essential consumer goods such as wheat, rice, sugar, kerosene oil, etc. It is meant to stabilise the prices of necessaries and assure distributive justice. But it is very inconvenient for consumers because it leads to queues, artificial shortages, corruption and black marketing. Keynes did not favour rationing for it “involves a great deal of waste, both of resources and of employment.”

Conclusion:

MONETARY AND FISCAL POLICY

From the various monetary, fiscal and other measures discussed above, it becomes clear that to control inflation, the government should adopt all measures simultaneously. Inflation is like a hydra-headed monster which should be fought by using all the weapons at the command of the government.

Comparison Chart

BASIS FOR COMPARISON	FISCAL POLICY	MONETARY POLICY
Meaning	The tool used by the government in which it uses its tax revenue and expenditure policies to affect the economy is known as Fiscal Policy.	The tool used by the central bank to regulate the money supply in the economy is known as Monetary Policy.
Administered by	Ministry of Finance	Central Bank
Nature	The fiscal policy changes every year.	The change in monetary policy depends on the economic status of the nation.
Related to	Government Revenue & Expenditure	Banks & Credit Control
Focuses on	Economic Growth	Economic Stability
Policy instruments	Tax rates and government spending	Interest rates and credit ratios
Political influence	Yes	No

Definition of Fiscal Policy

When the government of a country employs its tax revenue and expenditure policies to influence the overall demand and supply for commodities and services in the nation's economy is known as Fiscal Policy. It is a strategy used by the government to maintain the equilibrium between government receipts through various sources and spending over different projects. The fiscal policy of a country is announced by the finance minister through budget every year.

If the revenue exceeds expenditure, then this situation is known as fiscal surplus, whereas if the expenditure is greater than the revenue, it is known as the fiscal deficit. The main objective of the fiscal policy is to bring stability, reduce unemployment and growth of the economy. The instruments used in the Fiscal Policy are the level of taxation & its composition and expenditure on various projects. There are two types of fiscal policy, they are:

- **Expansionary Fiscal Policy**: The policy in which the government minimises taxes and increase public spending.
- **Contractionary Fiscal Policy**: The policy in which the government increases taxes and reduce public expenditure.

Definition of Monetary Policy

Monetary Policy is a strategy used by the Central Bank to control and regulate the money supply in an economy. It is also known as credit policy. In India, the Reserve Bank of India looks after the circulation of money in the economy.

There are two types of monetary policies, i.e. expansionary and contractionary. The policy in which the money supply is increased along with minimization of interest rates is known as Expansionary Monetary Policy. On the other hand, if there is a decrease in money supply and rise in interest rates, that policy is regarded as Contractionary Monetary Policy.

The primary purposes of the monetary policy include bringing price stability, controlling inflation, strengthening the banking system, economic growth, etc. The monetary policy focuses on all the matters which have an influence on the composition of money, circulation of credit, interest rate structure.

The measures adopted by the apex bank to control credit in the economy are broadly classified into two categories:

- General Measures (Quantitative Measures):
  - Bank Rate
  - Reserve Requirements i.e. CRR, SLR, etc.
  - Repo Rate Reverse Repo Rate
  - Open market operations
- Selective Measures (Qualitative Measures):
  - Credit Regulation
  - Moral persuasion
  - Direct Action
  - Issue of directives

Key Differences Between Fiscal Policy and Monetary Policy

The following are the major differences between fiscal policy and monetary policy.

1. The policy of the government in which it utilises its tax revenue and expenditure policy to influence the aggregate demand and supply for products and services the economy is known as Fiscal Policy. The policy through which the central bank controls and regulates the supply of money in the economy is known as Monetary Policy.
2. Fiscal Policy is carried out by the Ministry of Finance whereas the Monetary Policy is administered by the Central Bank of the country.
3. Fiscal Policy is made for a short duration, normally one year, while the Monetary Policy lasts longer.
4. Fiscal Policy gives direction to the economy. On the other hand, Monetary Policy brings price stability.
5. Fiscal Policy is concerned with government revenue and expenditure, but Monetary Policy is concerned with borrowing and financial arrangement.
6. The major instrument of fiscal policy is tax rates and government spending. Conversely, interest rates and credit ratios are the tools of Monetary Policy.
7. Political influence is there in fiscal policy. However, this is not in the case of monetary policy.

Conclusion

The main reason of confusion and bewilderment between fiscal policy and monetary policy is that the aim of both the policies is same. The policies are formulated and implemented to bring stability and growth in the economy. The most significant difference between the two is that fiscal policy is made by the government of the respective country whereas the central bank creates the monetary policy.

NATIONAL INCOME CONCEPT AND MEASUREMENT

- **National income** is net national product at factor cost (NNP at FC)

OR **National income** is the sum of money value of final goods and services produced by normal residents of a country within and outside the country during an accounting year.

- **GDP at MP=** It is the market value of all the final goods and services produced by all production units within the domestic territory of a country during a period of one year.
- **NDP at MP =** GDP at MP – Depreciation charges

Where **Depreciation charges** = Charges incurred on loss or fall in the value of fixed assets due to normal wear and tear and expected obsolesce(fall in value of typewriters due to introduction of computer)

- **GNP at MP:** It is the market value of all the final goods and services produced in the domestic territory of a country by normal residents during an accounting year including net factor income from aboard.
- **GNP at MP**= GDP at MP + NFIA

Where **NFIA** = Factor incomes earned by normal residents of a country from rest of the world and factor incomes earned by non-residents in the domestic territory of the country.

- **NNP at MP** = GNP at MP – Depreciation charges

- **GNP at FC** = GNP at MP – Net Indirect Tax(NIT)

Where Net indirect tax = Indirect Tax- Subsidies

- **NNP at FC**= NNP at MP – NIT

OR NNP at FC = NDP at FC + NFIA

- **GDP at FC** = GDP at MP- NIT
- **NDP at FC** = NDP at MP – NIT

OR **NDP at FC**= NNP at FC - NFIA

National income at current prices or Nominal National income: if goods and services produced in a year are valued at current prices ,i.e., prices prevailing in that particular year then it is called NI at current prices.
If goods and services produced in a year are valued at price of base year, we get **national income at constant prices.** A base year is a normal year, free from price fluctuations, without inflation or deflation.
NI at Constant Price = [(NI at Current price)÷(Current Price Index)]x 100
Where Current Price Index = (P1/P0)x 100
Where P1= Price at current year
P0= Price at base year

National Income of a country can be measured by three different methods:

1. Value added/output/ product method
2. Income method/distribution method
3. Expenditure or disposition method

1. According to **Value Added Approach**, national income is calculated by adding net value added at FC all the producing units during an accounting year within the domestic territory.

- GVA at MP / GDP at MP = GVO at MP – Intermediate consumption
- NVA at FC = GVA at MP- NIT – Depreciation Charge
- NNP at FC = NVA at FC + NFIA
- **Income method:** the income method measures national income generated among four factors of production in the form of wages, rent, interest and profits in exchange for their factor services.
- **NDP at FC = C.O.E + O.S + M.I**
- **Compensation of Employees**= it is the total amount of remuneration in cash (wage, bonus etc), in kind (non-monetary benefit like rent free accommodation, free conveyance, medical facilities, etc. and in the form of social security contributions, an employee receives from his employer for his factor services provided during an accounting period.
- **Operating Surplus**= Operating surplus is income from property(rent, royalty and interest) and income from entrepreneurship (profits= dividends + corporation tax + corporate saving)
- **Mixed Income of Self- employed:** income of own account workers (like farmers, doctors, barbers, etc) and unincorporated enterprises (small shopkeepers, repair shops, etc) is known as mixed income.
- **NNP at FC = NDP at FC + NFIA**

Expenditure method: Under expenditure method, national income is measured at the point of actual expenditure on goods and services for final use by all four sectors functioning in the economy.
GDP at MP = Private final consumption expenditure (PFCE) + Government final consumption Expenditure(GFCE)+ Gross domestic capital formation (GDCF) + Net exports(X-M)

Central bank is regarded as an apex financial institution in the banking system. It is considered as an integral part of the economic and financial system of a nation. The central bank functions as an independent authority and is responsible for controlling, regulating and stabilising the monetary and banking structure of the country.
In India, the Reserve Bank of India is regarded as the central bank. It was set up in 1935. Central banks are responsible for maintaining the financial stability and economic sovereignty of the country.

The functions of a central bank can be discussed as follows:
1. Currency regulator or bank of issue
2. Bank to the government
3. Custodian of Cash reserves
4. Custodian of International currency
5. Lender of last resort
6. Clearing house for transfer and settlement
7. Controller of credit
8. Protecting depositors interests

The above mentioned functions will be discussed in detail in the following lines.

1. **Currency regulator or bank of issue:** Central banks possess the exclusive right to manufacture notes in an economy. All the central banks across the world are involved in issuing notes to the economy.

This is one of the most important functions of the central bank in an economy and due to this the central bank is also known as the bank of issue.

Earlier all the banks were allowed to publish their own notes which resulted in a disorganised economy. To avoid this situation the government around the world authorised the central banks to function as the issuer of currency, which resulted in uniformity in circulation and balanced supply of money in the economy.

2. **Bank to the government:** One of the important functions of the central bank is to act as the bank to the government. The central bank accepts deposits and issues funds to the government. It is also involved in making and receiving payments for the government. Central banks also offer short term loans to the government in order to recover from bad phases in the economy.

In addition to being the bank to the government, it acts as an advisor and agent of the government by providing advice to the government in areas of economic policy, capital market, money market and loans from the government.

In addition to that, the central bank is instrumental in formulation of monetary and fiscal policies that help in regulation of money in the market and controlling inflation.

3. **Custodian of Cash reserves:** It is a practice of the commercial banks of a country to keep a part of their cash balances in the form of deposits with the central bank. The commercial banks can draw that balance when the requirement for cash is high and pay back the same when there is less requirement of cash.

It is for this reason that the central bank is regarded as the banker's bank. Central bank also plays an important role in the credit creation policy of commercial banks.

4. **Custodian of International currency:** An important function of the central bank is to maintain a minimum balance of foreign currency. The purpose of maintaining such a balance is to manage sudden or emergency requirements of foreign reserves and also to overcome any adverse deficits of balance of payments.

5. **Lender of last resort:** The central bank acts as a lender of last resort by providing money to its member banks in times of cash crunch. It performs this function by providing loans against securities, treasury bills and also by rediscounting bills.

This is regarded as one of the most crucial functions of the central bank wherein it helps in protecting the financial structure of the economy from collapsing.

6. **Clearing house for transfer and settlement:** Central bank acts as a clearing house of the commercial banks and helps in settling of mutual indebtedness of the commercial banks. In a clearing house, the representatives of different banks meet and settle the inter bank payments.

7. **Controller of credit:** Central banks also function as the controller of credit in the economy. It happens that commercial banks create a lot of credit in the economy that increases the inflation.

The central bank controls the way credit creation by commercial banks is done by engaging in open market operations or bringing about a change in the CRR to control the process of credit creation by commercial banks.

8. **Protecting depositors interests:** Central bank also needs to keep an eye on the functioning of the commercial banks in order to protect the interests of depositors.

Examples of Central Banks
Some of the well known central banks across the world are:
1. Federal Reserve (USA)
2. Reserve Bank of India (India)
3. People's Bank of China (China)
4. Bank of England (UK)
5. European Central Bank (EU or European Union)

What is Commercial Bank?

A commercial bank is a kind of financial institution that carries all the operations related to deposit and withdrawal of money for the general public, providing loans for investment, and other such activities. These banks are profit-making institutions and do business only to make a profit.
The two primary characteristics of a commercial bank are lending and borrowing. The bank receives the deposits and gives money to various projects to earn interest (profit). The rate of interest that a bank offers to the depositors is known as the borrowing rate, while the rate at which a bank lends money is known as the lending rate.

Function of Commercial Bank:

The functions of commercial banks are classified into two main divisions.

(a) Primary functions

Accepts deposit: The bank takes deposits in the form of saving, current, and fixed deposits. The surplus balances collected from the firm and individuals are lent to the temporary requirements of the commercial transactions.
Provides loan and advances: Another critical function of this bank is to offer loans and advances to the entrepreneurs and business people, and collect interest. For every bank, it is the primary source of making profits. In this process, a bank retains a small number of deposits as a reserve and offers (lends) the remaining amount to the borrowers in demand loans, overdraft, cash credit, short-run loans, and more such banks.
Credit cash: When a customer is provided with credit or loan, they are not provided with liquid cash. First, a bank account is opened for the customer and then the money is transferred to the account. This process allows the bank to create money.

(b) Secondary functions

Discounting bills of exchange: It is a written agreement acknowledging the amount of money to be paid against the goods purchased at a given point of time in the future. The amount can also be cleared before the quoted time through a discounting method of a commercial bank.
Overdraft facility: It is an advance given to a customer by keeping the current account to overdraw up to the given limit.
Purchasing and selling of the securities: The bank offers you with the facility of selling and buying the securities.
Locker facilities: A bank provides locker facilities to the customers to keep their valuables or documents safely. The banks charge a minimum of an annual fee for this service.
Paying and gathering the credit : It uses different instruments like a promissory note, cheques, and bill of exchange.

Types of Commercial Banks:

There are four different types of commercial banks.

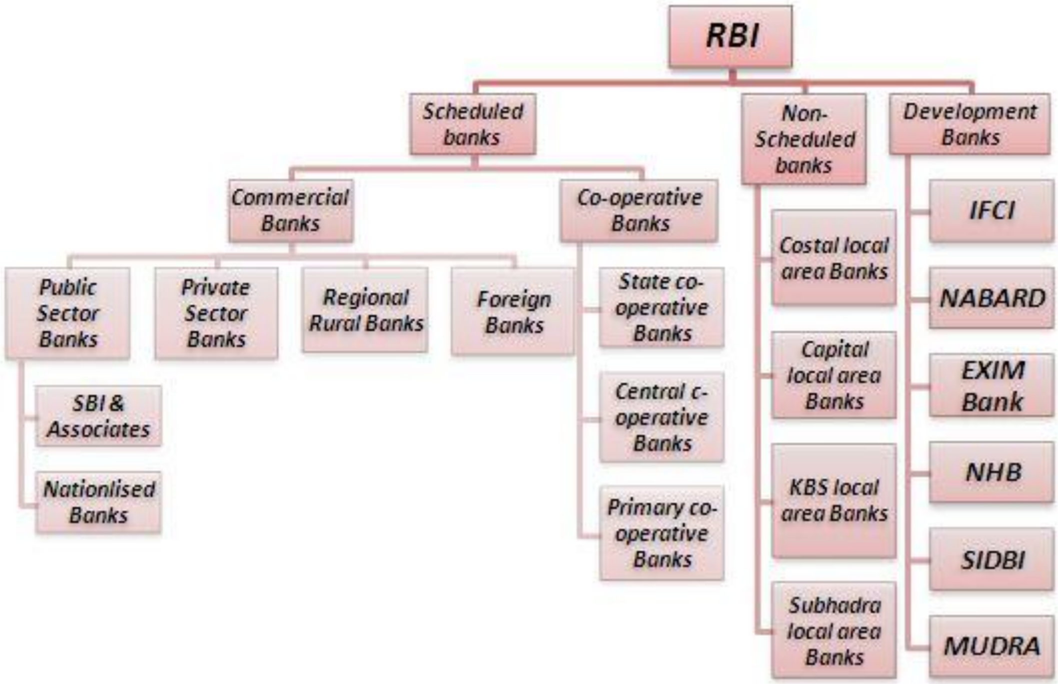
1. **Private bank –:** It is a type of commercial banks where private individuals and businesses own a majority of the share capital. All private banks are recorded as companies with limited liability. Such as Housing Development Finance Corporation (HDFC) Bank, Industrial Credit and Investment Corporation of India (ICICI) Bank, Yes Bank, and more such banks.

2. **Public bank –:** It is a type of bank that is nationalised, and the government holds a significant stake. For example, Bank of Baroda, State Bank of India (SBI), Dena Bank, Corporation Bank, and Punjab National Bank.

3. **Foreign bank –:** These banks are established in foreign countries and have branches in other countries. For instance, American Express Bank, Hong Kong and Shanghai Banking Corporation (HSBC), Standard & Chartered Bank, Citibank, and more such banks.

4. **Regional Rural Banks: Regional Rural Banks (RRB):-**

These are unique types of commercial banks that lend to agriculture and the rural economy at a reduced rate. RRBs were founded in 1975 and are governed by the 1976 Regional Rural Bank Act.



List of Govt. Banks in India

Below the List of govt. banks in India 2022

1. **State Bank of India**

It is the first largest central government bank in India. It also gets to be known as the Imperial Bank of India. India. SBI is ranked 236th on the Fortune Global 500 list. With the merger with its 5 associates banks, SBI has the largest branch network in India. **Tagline- Pure Banking, Nothing Else**

2. **Punjab National Bank**

Punjab National Bank is the second-largest government bank. The new name of merged Punjab National Bank, Oriental Bank, and United Bank is Amalgamated 3. **The tagline of PNB is –The name you can Bank Upon.**

3. **Bank Of Baroda**

Bank of Baroda is the third-largest bank of India. The merging of Dena Bank and Vijaya Bank created the Bank of Baroda. Bank of Baroda is an Indian multinational bank. **Tagline: India's International Bank**

4. **Bank Of Maharashtra**

The Bank of Maharashtra originated in 1969. It was founded and created by D.K Sathe as well as V.G. Kale. Bank of Maharashtra is a major public sector bank. **Tagline: One Family One Bank.**

5. **Bank Of India**

Bank of India is a leading nationalized bank. It was founded by a distinguished group of Maharashtra as well as Mumbai. Bank of India is the founder member of SWIFT (Society for Worldwide Inter Bank Financial Telecommunications). **Tagline: Relationship Beyond Banking.**

6. Union Bank Of India

Union Bank of India is a very famous government bank. It consists of 3040 ATMs under them. It contains complete automatic 2600 CBS branches. The tagline of this bank**- Good People to Bank With.**

7. Canara Bank

Canara Bank is the largest famous public sector government bank in India. Canara Bank will merge with Syndicate Bank to become the fourth largest Public Sector Bank in the country. The tagline of Canara Bank is- **Together we can.**

8. Central Bank Of India

It was founded by Ammembal Subba Rao Paiand. It originated in 1969 at Mangalore. Established in 1911, the financial organization of India was the primary Indian bank that was the whole closely-held and managed by Indians. Tagline**- Central to you since 1911.**

9. Indian Bank

Indian Bank is the oldest bank of India, which includes the 20924 rates of employees. It also contains 2900 bank branches and 2861 ATMs under them. Tagline of this bank is**- Your Own Bank.**

10. Indian Overseas Bank

The founder of the Indian Overseas Bank is Thiru.M.Ct.M. Chidambaram Chettiar. It has formalized foreign exchange operations with high capability. It is the fastest and largest top performer among Government banks. Tagline**- Good People to Grow With**

11. UCO Bank

It was established in 1943 in Kolkata, India. The founder of UCO bank is a group of eminent Indian industrialists. It is a commercial bank that has provided an excellent economic facility to people. The tagline of UCO bank is**- Honours Your Trust.**

12. Punjab and Sind Bank

The Punjab and Sind Bank has 623 branches in Punjab state, and throughout the country, it has 1559 bank branches. This is a public sector bank of India. The tagline of this bank**- Where Service Is A Way Of Life.**

About Private Sector Bank

Private Banks are banks owned by either the individual or a general partners with limited partenrs. At present there are 21 private banks in India.

1. **Axis Bank:** In India Axis bank is the 3rd largest bank in the private sector. The bank has worldwide workplaces in 11 countries. Axis bank is a premier bank for the new generation. The year of the Establishment of Axis Bank is 1993, and its headquarters is located in Mumbai, Maharashtra
2. **Bandhan Bank:** Bandhan Bank is a wholly-owned subsidiary of Bandhan Financial Holdings Limited. It started its operations in the year 2015. It is headquartered located in Kolkata, West Bengal.

3. **CSB Bank:** The headquarters of CSB Bank is located in Thrissur, Kerela. It was formerly known as the Catholic Syrian Bank and is one of India's oldest private sector banks as it was established in November 1920.
4. **City Union Bank:** City Union Bank was initially named Kumbakonam Bank Limited. The headquarter of this bank is located in Kumbakonam, Tamil Nadu. Currently, it has a network of over 700 branches across the country.
5. **DCB Bank:** DCB Bank is a new generation private sector bank with 400 branches across India. DCB Bank has deep roots in India since its inception in the 1930s. The headquarter of Development Credit Bank (DCB) is located in Mumbai Maharashtra.
6. **Dhanlaxmi Bank:** This bank was set up in 1927 with its registered office in Thrissur, Kerala. Dhanlaxmi Bank is one of the most trustworthy and dignified banks in India. It is expanded across the country with 245 branches.
7. **Federal Bank:** The headquarter of Federal Bank is located in Aluva, Kerala, Federal Bank consists of a banking network of over 1272 branches in the nation. It was named Travancore Federal Bank when it was established, but later on, it changed.
8. **HDFC Bank:** HDFC Bank is India's largest private sector bank. it was one of the first to get 'in principle' clearance to open a bank in the private sector. The headquarters of HDFC bank is located in Mumbai. It was among the first to receive in-principle approval from the RBI to set up a bank in the private sector, as a part of RBI's liberalization of the Indian Banking Industry in 1994.
9. **ICICI Bank:** ICICI Bank is India's largest private sector bank. ICICI Bank was established in 1994 as a wholly-owned subsidiary of ICICI Limited. Its headquarters is located in Mumbai.
10. **Karur Vysya Bank:** Karur Vysya Bank is a scheduled commercial bank in India. It was set up in 1916. The headquarter of this bank is located in Karur, Tamilnadu. It has completed 100 years of operation and is one of the leading banks in India
11. **Kotak Mahindra Bank:** Kotak Mahindra Bank is India's first finance company converted into a private bank. It has ended up as one of the foremost prevalent banks in India. It has begun in 1985 as Kotak Mahindra fund ltd but afterward, it changed to the bank in 2003.
12. **IDBI Bank:** IDBI Bank has become one of the premier private banks in our country. Established initially for the purpose of boosting the industrial sector of our country, it comes among the top private banks of the country. The headquarters of IDBI bank is located in Mumbai Maharastra**.**
13. **IDFC FIRST Bank:** IDFC First Bank was set up in 1997 as a financing foundation, and its prime center was on extending the back and mobilization of capital for the improvement of private sector foundations in 2005, Its headquarters is located in Mumbai.
14. **IndusInd Bank:** The IndusInd bank is a Pune-based new generation Indian bank. This is one of the oldest private sector banks of our country. The headquarter of IndusInd Bank is located in Mumbai.
15. **J&K Bank:** J&K bank is a pretty old bank that was established back in 1938. The headquartered of J&K bank is located in Srinagar, Jammu, and Kashmir. It is a universal bank in Jammu & Kashmir and Ladakh and is a specialized bank in the rest of the country.

16. **Karnataka Bank:** Karnataka Bank Ltd is an Indian banking company. The company's operating segment includes Treasury operations, Corporate/Wholesale Banking, Retail Banking, and Other Banking Operations. The headquarter of Karnataka bank is located in Mangluru Karnataka.
17. **RBL Bank:** RBL bank is established in the year 1943 with the aim of serving the Kolhapur-Sangli belt of Maharashtra. This is one of the fastest-growing private banks of the nation. The headquarter of RBL bank is located in Mumbai Maharashtra.
18. **YES Bank:** It was founded in 2004 by two bankers Ashok Kapur and Rana Kapoor. The registered office of the bank is situated in Mumbai, Maharashtra. This bank in India is one of the most customer-focused and service-driven banks.
19. **Tamilnad Mercantile Bank:** The headquarter of Tamilnad Mercantile Bank Limited (TMB) is located in Thoothukudi, Tamil Nadu. TBM was set up in 1921 at the Nadar Bank but changed its name to Tamilnadu Mercantile Bank in 1962.
20. **South Indian Bank:** The South Indian Bank is known to be the first Kerala bank to execute the core banking system. They have a good market reputation because of their transparency in operations. Headquartered is located in Kerala,
21. **Nainital Bank:** The Nainital Bank was established in 1922 in Nainital to meet the financial needs of the region. It was started by Govind Ballabh Pant. However, in 1975, the bank's 99% shares were acquired by the Bank of Baroda.