UNIT I

* `What is Macro Economics
* Why Macro Economics
* Importance of Macro Economics
* Macro VS Micro Economics
* Macro Economics Goal and instruments –Stocks and Flow

**What is Macroeconomics?**

Macroeconomics is a branch of economics that studies how the aggregate economy behaves. In macroeconomics, economy-wide phenomena are examined such as [inflation](https://www.investopedia.com/terms/i/inflation.asp), price levels, rate of [economic growth](https://www.investopedia.com/terms/e/economicgrowth.asp), national income, [gross domestic product (GDP)](https://www.investopedia.com/terms/g/gdp.asp), and changes in [unemployment](https://www.investopedia.com/terms/u/unemployment.asp).

As the term implies, macroeconomics looks at the overall, big picture scenario of the economy. Put simply, it focuses on the way the economy performs as a whole, and then analyzes how different sectors of the economy relate to one another to understand how the economy functions. This includes looking at variables like unemployment, GDP, and inflation. Macroeconomists develop models explaining relationships between these factors. Such macroeconomic models, and the forecasts they produce, are used by government entities to aid in the construction and evaluation of economic policy, by businesses to set strategy in domestic and global markets, and by investors to predict and plan for movements in various asset markets.

On the other hand, microeconomics looks at the behavior of individual actors in an economy (like people, households, industries, etc). We'll look at the differences a bit more later.



**Importance of Macroeconomics**

#### Functioning of an Economy:

Macroeconomic analysis is of paramount importance in getting us an idea of the functioning of an economic system.

It is very essential for a proper and accurate knowledge of the behaviour pattern of the aggregative variables as the description of a large and complex economic system is impossible in terms of numerous individual items.

#### 2. Formulation of Economic Policies:

Macroeconomics is of great help in the formulation of economic policies. The days of ‘laissez faire’ are over and government intervention in economic matters is an accomplished fact. Governments deal not with individuals but with groups and masses of individuals, thereby establishing the importance of macroeconomic studies. For example, during depression, when the machines lie idle and men roam from pillar to post in search of employment, macroeconomics helps us to analyze the cause leading to depression and unemployment and to the adoption of suitable policies to cope with such a situation.

#### 3. Understanding Macroeconomics:

The study of macroeconomics is essential for the proper understanding of microeconomics. No Microeconomic law could be framed without a prior study of the aggregates; for example, the theory of individual firm could not have been formulated with reference to the behaviour pattern of one single firm, howsoever representative it might have been; the theory was possible only after the behaviour pattern of several firms had been examined and analyzed, for example, the forest, though an aggregation of trees, does not exhibit the behaviour and characteristics of individual trees. Microeconomics has been, and to some extent, remains a jungle of special assumptions, special cases, unsatisfactory measurements and abstract theorising.

#### 4. Understanding and Controlling Economic Fluctuations:

Economic fluctuations are a characteristic feature of the capitalist form of society. The theory of economic fluctuations can be understood and built up only with the help of macroeconomics, for here we have to take into consideration aggregate consumption, aggregate saving and investment in the economy. Thus, we are led to analyse the causes of fluctuations in income, output and employment, and make attempts to control them or at least to reduce their severity.

#### 5. Inflation and Deflation:

Macroeconomic approach is of utmost importance to analyse and understand the effects of inflation and deflation. Different sections of society are affected differently as a result of changes in the value of money. Macroeconomic analysis enables us to take certain steps to counteract the adverse influences of inflation and deflation.

#### 6. Study of National Income:

It is the study of macroeconomics which has brought forward the immense importance of the study of national income and social accounts. In micro-economy such a study was relegated to the background. It is the study of national income which enables us to know that three-fourth of the world is living in abject poverty. Without a study of national income, as a result of the development in macroeconomics, it was not possible to formulate correct economic policies.

#### 7. Study of Economic Development:

As a result of advanced study in macroeconomics, it has become possible to give more attention to the problem of development of underdeveloped countries. Study of macroeconomics has revealed not only the glaring inequalities of wealth within an economy but has also shown the vast differences in the standards of living of the people in various countries necessitating the adoption of important steps to promote their economic welfare.

#### 8. Performance of an Economy:

Macroeconomics helps us to understand and analyse the performance of an economy. It implies the result-oriented study of an economy—in terms of actual and factual achievements. Gross National Product (GNP) or National Income (NI) estimates are used to measure the performance of an economy over time by comparing the production of goods and services in one period with that of the other periods the composition of GNP gives information about the quantum of contribution of each sector of the economy to GNP.

#### 9. Nature of Material Welfare:

Macroeconomics enables us to study the nature and size of the material welfare of the nations. The problem of measuring social welfare is not easy; even welfare economics does not help us. Those who are interested in the material and social welfare of all must study problems in their macroeconomic setting. This adds to the importance of macroeconomics because when the chief objective of the studies of economics is the welfare of entire society, economics becomes the study of macroeconomics.

**Macro VS Micro Economics**

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**Micro Economics VS Macro Economics**

| **Basis for Comparison** | **Microeconomics** | **Macroeconomics** |
| --- | --- | --- |
| Meaning  | The branch of economics that studies the behavior of an individual consumer, firm, family is known as Microeconomics. | The branch of economics that studies the behavior of the whole economy, (both national and international) is known as Macroeconomics. |
| Deals with | Individual economic variables | Aggregate economic variables |
| Business Application | Applied to operational or internal issues | Environment and external issues |
| Scope | Covers various issues like demand, supply, product pricing, factor pricing, production, consumption, economic welfare, etc. | Covers various issues like, national income, general price level, distribution, employment, money etc. |
| Importance | Helpful in determining the prices of a product along with the prices of factors of production (land, labor, capital, entrepreneur etc.) within the economy. | Maintains stability in the general price level and resolves the major problems of the economy like inflation, deflation, reflation, unemployment and poverty as a whole.  |
| Limitations | It is based on unrealistic assumptions, i.e. In microeconomics it is assumed that there is a full employment in the society which is not at all possible. | It has been analyzed that 'Fallacy of Composition' involves, which sometimes doesn't proves true because it is possible that what is true for aggregate may not be true for individuals too. |

**Macroeconomic Policy: Objectives and Instruments**

Microeconomics and macroeconomics—the two major divisions of economics—have different objectives to be pursued.

The key microeconomic goals are the efficient use of resources that are employed and the efficient distribution of output.

These two goals of microeconomics are encapsulated as ‘efficiency’ and ‘equity’.

But macroeconomic goals are quite different because the overall response of the economy must not match with the individual units. As macroeconomics looks at the whole, its objectives are aggregative in character. In other words, because of different level of aggregation, these two branches of economics focus on different economic objectives.

**1. Macroeconomic Policy Objectives:**

**The macroeconomic policy objectives are the following:**

(i) Full employment,

(ii) Price stability,

 (iii) Economic growth,

(iv) Balance of payments equilibrium and exchange rate stability, and

(v) Social objectives.

**(i) Full employment:**

Performance of any government is judged in terms of goals of achieving full employment and price stability. These two may be called the key indicators of health of an economy. In other words, modern governments aim at reducing both unemployment and inflation rates.

Unemployment refers to involuntary idle­ness of mainly labour force and other produc­tive resources. Unemployment (of labour) is closely related to the economy’s aggregate output. Higher the unemployment rate, greater the divergence between actual aggre­gate output (or GNP/CDP) and potential out­put. So, one of the objectives of macroeco­nomic policy is to ensure full employment.

The objective of full employment became uppermost amongst the policymakers in the era of Great Depression when unemployment rate in all the countries except the then social­ist country, the USSR, rose to a great height. It may be noted here that a free enterprise capi­talist economy always exhibits full employ­ment.

But, Keynes said that the goal of full employment may be a desirable one but im­possible to achieve. Full employment, thus, does not mean that nobody is unemployed. Even if 4 or 5 p.c. of the total population re­main unemployed, the country is said to be fully employed. Full employment, though theoretically conceivable, is difficult to attain in a market-driven economy. In view of this, full employment objective is often translated into ‘high employment’ objective. This goal is desirable indeed, but ‘how high’ should it be? One author has given an answer in the fol­lowing way; “The goal for high employment should therefore be not to seek an unemploy­ment level of zero, but rather a level of above zero consistent with full employment at which the demand for labour equals the supply of labour. This level is called the natural rate of unemployment.”

**(ii) Price stability:**

No longer is the attain­ment of full employment considered as a macroeconomic goal. The emphasis has shifted to price stability. By price stability we must not mean an unchanging price level over time. Not necessarily, price increase is unwel­come, particularly if it is restricted within a reasonable limit. In other words, price fluc­tuations of a larger degree are always unwel­come.

However, it is difficult again to define the permissible or reasonable rate of inflation. But sustained increase in price level as well as a falling price level produce destabilizing ef­fects on the economy. Therefore, one of the objectives of macroeconomic policy is to en­sure (relative) price level stability. This goal prevents not only economic fluctuations but also helps in the attainment of a steady growth of an economy.

**(iii) Economic growth:**

Economic growth in a market economy is never steady. These economies experience ups and downs in their performance. This objective became uppermost in the period following the World War II (1939-45). Economists call such ups and downs in the economic performance as trade cycle/business cycle. In the short run such fluctuations may exhibit depressions or prosperity (boom).

One of the important benchmarks to measure the performance of an economy is the rate of increase in output over a period of time. There are three major’ sources of economic growth, viz. (i) the growth of the labour force, (ii) capital formation, and (iii) technological progress. A country seeks to achieve higher economic growth over a long period so that the standards of living or the quality of life of people, on an average, improve. It may be noted here that while talking about higher economic growth, we take into account general, social and environmental factors so that the needs of people of both present generations and future generations can be met.

However, promotion of higher economic growth is often hampered by short run fluctuations in aggregate output. In other words, one finds a conflict between the objectives of economic growth and economic stability (in prices). In view of this conflict, it is said that macroeconomic policy should promote economic growth with reasonable price stability.

**(iv) Balance of payments equilibrium and exchange rate stability:**

From a macro- economic point of view, one can show that an international transaction differs from domestic transaction in terms of (foreign) currency exchange. Over a period of time, all countries aim at balanced flow of goods, services and assets into and out of the country. Whenever this happens, total international monetary reserves are viewed as stable.

If a country’s exports exceed imports, it then experiences a balance of payments surplus or accumulation of reserves, like gold and foreign currency. When the country loses reserves, it experiences balance of payments deficit (or imports exceed exports). However, depletion of reserves reflects the unhealthy performance of an economy and thus creates various problems. That is why every country aims at building substantial volume of foreign exchange reserves.

Anyway, the accumulation of foreign exchange reserves is largely conditioned by the exchange rate the rate at which one currency is exchanged for another currency to carry out international transactions. The foreign exchange rate should be stable as far as possible. This is what one may call it external stability in price.

External instability in prices hampers the smooth flow of goods and services between nations. It also erodes the confidence of currency. However, maintenance of external stability is no longer considered as the macroeconomic policy objective as well as macroeconomic policy instrument.

It is, however, because of growing inter- connectedness and interdependence between different nations in the globalized world, the task of fulfilling this macroeconomic policy objective has become more problematic.

**(v) Social objectives:**

The list of objectives that we have referred here is by no means an exhaustive one; one can add more in the list. Even then we have incorporated the major ones.

Macroeconomic policy is also used to attain some social ends or social welfare. This means that income distribution needs to be more fair and equitable. In a capitalist market-based society some people get more than others. In order to ensure social justice, policymakers use macroeconomic policy instruments.

We can add another social objective in our list. This is the goal of economic freedom. This is characterized by the right of taking economic decisions by any individual (rich or poor, high caste or low caste).

**2. Macroeconomic Policy Instruments:**

As our macroeconomic goals are not typically confined to “full employment”, “price stability”, “rapid growth”, “BOP equilibrium and stability in foreign exchange rate”, so our macroeconomic policy instruments include monetary policy, fiscal policy, income policy in a narrow sense. But, in a broder sense, these instruments should include policies relating to labour, tariff, agriculture, anti-monopoly and other relevant ones that influence the macroeconomic goals of a country. Confining our attention in a restricted way we intend to consider two types of policy instruments the two “giants of the industry” monetary (credit) policy and fiscal (budgetary) policy. These two policies are employed toward altering aggregate demand so as to bring about a change in aggregate output (GNP/GDP) and prices, wages and interest rates, etc., throughout the economy.

Monetary policy attempts to stabilize aggregate demand in the economy by influencing the availability or price of money, i.e., the rate of interest, in an economy.

Monetary policy may be defined as a policy employing the central bank’s control of the supply of money as an instrument for achieving the macroeconomic goals.

Fiscal policy, on the other hand, aims at influencing aggregate demand by altering tax- expenditure-debt programme of the government. The credit for using this kind of fiscal policy in the 1930s goes to J.M. Keynes who discredited the monetary policy as a means of attaining some of the macro- economic goals—such as the goal of full employment.

As fiscal policy has come into scrutiny in terms of its effectiveness in achieving the desired macroeconomic objectives, the same is true about the monetary policy. One can see several rounds of ups and downs in the effectiveness of both these policy instruments consequent upon criticisms and counter- criticisms in their theoretical foundations.

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It may be pointed out here that as there are conflicts among different macroeconomic goals, policymakers are in a dilemma in the sense that neither of the policies can achieve desired goals. Hence the need for additional policy measures like income policy, price control, etc. Further, while the objectives represent economic, social and political value judgments they do not normally enter the mainstream economic analysis. Ultimately, policymakers and bureaucrats are blamed as troubleshooters.

**Stocks and Flow**

#### Stock Variables

**Stock is a quantity which is measurable at a particular point of time**, e.g., 4 p.m., 1st January, Monday, 2010, etc. Capital is a stock variable. On a particular date (say, 1st April, 2011), a country owns and commands stock of machines, buildings, accessories, raw materials, etc. It is stock of capital. Like a balance-sheet, a stock has a reference to a particular date on which it shows stock position. Clearly, a stock has no time dimension (length of time) as against a flow which has time dimension.

A flow shows change during a period of time whereas a stock indicates the quantity of a variable at a point of time. Thus, wealth is a stock since it can be measured at a point of time, but income is a flow because it can be measured over a period of time. Examples of stocks are: wealth, foreign debts, loan, inventories (not change in inventories), opening stock, money supply (amount of money), population, etc.

The distinction between flows and stocks can be easily understood by comparing the actions of Still Camera (which records position at a point of time) with that of Video Camera (which records position during a period of time).

#### Flow Variables:

**A flow is a quantity which is measured with reference to a period of time.** Thus, flows are defined with reference to a specific period (length of time), e.g., hours, days, weeks, months or years. It has time dimension. National income is a flow. It describes and measures flow of goods and services which become available to a country during a year.

Similarly, all other economic variables which have time dimension, i.e., whose magnitude can be measured over a period of time are called flow variables. For instance, income of a person is a flow which is earned during a week or a month or any other period. Likewise, investment (i.e., addition to the stock of capital) is a flow as it pertains to a period of time.

Other examples of flows are: expenditure, savings, depreciation, interest, exports, imports, change in inventories (not mere inventories), change in money supply, lending, borrowing, rent, profit, etc. because magnitude (size) of all these are measured over a period of time.

**UNIT II**

* Measuring economy’s performance
* Circular flow of product and Income
* Equilibrium level income
* Concept of National Income ,nominal income and real income
* India’s National Income Accounts
* Sources of data on Indian Economy

### What is Economy

An economy is the large set of inter-related production and consumption activities that aid in determining how scarce resources are allocated. This is also known as an economic system. An economy encompasses all activity related to production, consumption and trade of goods and services in an area. An economy applies to everyone from individuals to entities such as corporations and governments. The economy of a particular region or country is governed by its culture, laws, history, and geography, among other factors, and it evolves due to necessity. For this reason, no two economies are the same

## Performance indicators

The performance of an economy is usually assessed in terms of the achievement of economic objectives. These objectives can be long term, such as sustainable growth and development, or short term, such as the stabilisation of the economy in response to sudden and unpredictable events, called economic shocks.

#### Useful indicators include:

1. Levels of real national income, spending, and output. National income, output, and spending are three key variables that indicate whether an economy is growing, or in recession. Like many other indicators, income, output, and spending can also be measured in per capita (per head) terms.
2. Growth in real national income.
3. Investment levels and the relationship between capital investment and national output.
4. Levels of savings and savings ratios.
5. Price levels and inflation.
6. Competitiveness of exports.
7. Levels and types of unemployment.
8. Employment levels and patterns of employment.
9. The productivity of labour, which influences other economic variables, including an economy's competitiveness in international markets.
10. Trade deficits and surpluses with specific countries or the rest of the world.
11. Debt levels with other countries.
12. The proportion of debt to national income.
13. The terms of trade of a country.
14. The purchasing power of a country's currency.
15. Wider measures of human development, including literacy rates and health care provision. Such measures are included in the Human Development Index (HDI).
16. Measures of human poverty, including the Human Poverty Index(HPI).

**WHAT IS NATIONAL INCOME**

***According to Marshall***: “The labour and capital of a country acting on its natural resources produce annually a certain net aggregate of commodities, material and immaterial including services of all kinds. This is the true net annual income or revenue of the country or national dividend.” In this definition, the word ‘net’ refers to deductions from the gross national income in respect of depreciation and wearing out of machines. And to this, must be added income from abroad. A.C. Pigou has in his definition of national income included that income which can be measured in terms of money. In the words of Pigou, “National income is that part of objective income of the community, including of course income derived from abroad which can be measured in money.”

***Fisher adopted*** ‘consumption’ as the criterion of national income whereas Marshall and Pigou regarded it to be production. According to Fisher, “The National dividend or income consists solely of services as received by ultimate consumers, whether from their material or from the human environments. Thus, a piano, or an overcoat made for me this year is not a part of this year’s income, but an addition to the capital. Only the services rendered to me during this year by these things are income.”

Fisher’s definition is considered to be better than that of Marshall or Pigou, because Fisher’s definition provides an adequate concept of economic welfare which is dependent on consumption and consumption represents our standard of living.

From the modern point of view, Simon Kuznets has defined national income as “the net output of commodities and services flowing during the year from the country’s productive system in the hands of the ultimate consumers.”

***On the other hand, in one of the reports of United Nations, national income*** has been defined on the basis of the systems of estimating national income, as net national product, as addition to the shares of different factors, and as net national expenditure in a country in a year’s time. In practice, while estimating national income, any of these three definitions may be adopted, because the same national income would be derived, if different items were correctly included in the estimate.

### What Is Gross Domestic Product (GDP)?

Gross Domestic Product (GDP) is a broad measurement of a nation’s overall economic activity. GDP is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

GDP includes all private and public consumption, government outlays, investments, additions to private inventories, paid-in construction costs and the foreign balance of trade (exports are added, imports are subtracted). It may be contrasted with Gross National Product (GNP), which measures the overall production of an economy's citizens, including those living abroad, while domestic production by foreigners is excluded. Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as .

**What is Gross National Product (GNP)?**

Gross national product (GNP) is an estimate of total value of all the final products and services turned out in a given period by the means of production owned by a country's residents. GNP is commonly calculated by taking the sum of personal consumption expenditure, private domestic investment, government expenditure, [net exports](https://www.investopedia.com/terms/n/netexports.asp) and any income earned by residents from overseas investments, minus income earned within the domestic economy by foreign residents. Net exports represent the difference between what a country exports minus any imports of goods and services.

GNP is related to another important economic measure called [gross domestic product](https://www.investopedia.com/terms/g/gdp.asp) (GDP), which takes into account all output produced within a country's borders regardless of who owns the means of production. GNP starts with GDP, adds residents' [investment income](https://www.investopedia.com/terms/i/investmentincome.asp) from overseas investments, and subtracts foreign residents' investment income earned within a country.

### What is Real Income

Real income refers to the income of an individual or group after taking into consideration the effects of [inflation](https://www.investopedia.com/terms/i/inflation.asp) on [purchasing power](https://www.investopedia.com/terms/p/purchasingpower.asp). For example, if you receive a 2% salary increase over the previous year and inflation for the year is 1%, then your real income only increases by 1%. Conversely, if you receive a 2% raise in salary and inflation is at 3%, then your real income shrinks by 1%.. Real income, also called real wages, refers to the amount of goods and services you can buy today compared to the price of the same goods and services you could have purchased in another time period. For example, if it costs you $2,000 more to purchase the same amount of goods and services (such as food, gas, rent and [utilities](https://www.investopedia.com/terms/u/utility.asp)) this year compared to last year, and your annual income is the same, then your real income has actually decreased by $2,000.

## What is nominal income?

Nominal income is that part of your salary that is paid out in cash. It is your income in actual currency terms unadjusted for what is termed as inflation. Inflation refers to the increase in the general price of goods and services, more technically known as the Consumer Price Index or CPI. Inflation is calculated as the change in the CPI year-on-year. A 10 percent inflation rate means that prices in the current period are about 10 percent higher than that of the same period a year ago. This is the same percentage that your nominal income lost in terms of purchasing power.

**Circular flow of product and Income**

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The circular flow of income is a neoclassical economic model depicting how money flows through the economy. In its simplest version, the economy is modeled as consisting only of households and firms. Money flows to workers in the form of wages and money flows back to firms in exchange for products. In short, an economy is made up of countless circular flows of income (or money).

### Enhancing Circular Flow

* The circular flow of income described above is the most simplistic illustration of the interdependency of two sectors in the economy. However, actual money flows through the economy are far more complicated. Economists have expanded on the ideas of the circular flow of income model to better depict the complexity of modern economies by including more sectors that affect money flow. In addition to the household sector that spends (C) goods and the business sector that produces the goods, two sectors that are also included in the circular flow of income include the government sector and the foreign sector. The government injects money into the circle through government spending (G) on things like welfare programs and infrastructure. Money is also added to the circular flow through exports(X) which involves foreign entities purchasing goods from the economy. Businesses that invest (I) money to purchase capital stocks contribute to the flow of income in the economy.

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### Understanding Circular Flow Of Income

Most, if not all, people go to work daily to earn a living. The money that is earned is used to purchase goods and services from businesses such as food, clothes, rent, basic commodities, entertainment services, health and wellness products, etc. The income earned daily flows back to businesses continuously in a cycle known as the circular flow of income.

Businesses and companies manufacture goods or provide services to consumers. To increase sales and profits, these companies use factors of production - labor, capital, and land - to run their operations and grow their businesses. In return for their services, the hired labor is given a wage or salary, known as income. The income received is used by households and individuals to purchase the goods and services produced by these businesses. The businesses use the proceeds from the sales to produce more products and pay workers for their labor.

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Just as money is injected into the economy, money can also be withdrawn or leaked through a number of activities. Taxes (T) imposed by the government reduce the flow of income. Money that is used to pay foreign entities for goods and services through import (M) also constitutes a leakage. Finally, savings (S) of businesses which could otherwise have been invested leads to a decrease in the circular flow of an economy’s income.

By tracking the injections into and withdrawals from the circular flow of income, the government can calculate its national income which is the wages and other forms of income received by households for their services

**Equilibrium level of national income**

To get the equilibrium level of national income, we simply combine the aggregate demand and supply curves. When we impose the AD on the AS (as in Figure 1 below) we note that AD is greatest at lower prices, whilst AS is at its highest when prices are higher. The equilibrium, in the macro sense, will occur at the level of real national income or output at which the total planned expenditure on output equals the quantity of goods and services firms are willing and able to supply. This is at an output level of Y\* and a price level of P\*.



If nothing changes then the economy will be stable at this equilibrium, but any changes in aggregate supply and demand will lead to changes in output and the price level.

**Aggregate demand and Aggregate Supply**

**Aggregate supply** is the total quantity of output firms will produce and sell—in other words, the real GDP.The upward-sloping **aggregate supply curve**—also known as the **short run aggregate supply curve**—shows the positive relationship between price level and real GDP in the short run.The aggregate supply curve slopes up because when the price level for outputs increases while the price level of inputs remains fixed, the opportunity for additional profits encourages more production. **Potential GDP**, or **full-employment GDP**, is the maximum quantity that an economy can produce given full employment of its existing levels of labor, physical capital, technology, and institutions. Aggregate supply, also known as total output, is the total supply of goods and services produced within an economy at a given overall [price level](https://www.investopedia.com/terms/p/price_level.asp) in a given period. It is represented by the aggregate supply curve, which describes the relationship between price levels and the quantity of output that firms are willing to provide. Normally, there is a positive relationship between aggregate supply and the price level.

### Aggregate Demand is an economic measurement of the sum of all final goods and services produced in an economy, expressed as the total amount of money exchanged for those goods and services. Since aggregate demand is measured by market values, it only represents total output at a given price level and does not necessarily represent quality or standard of living.

As a macroeconomic term describing the total demand in an economy for all goods and services at any given price level in a given period, aggregate demand necessarily equals [gross domestic product (GDP)](https://www.investopedia.com/terms/g/gdp.asp), at least in purely quantitative terms, because the two share the same equation. As a matter of accounting, it must always be the case that the aggregate demand and GDP increase or decrease together.

Technically speaking, aggregate demand only equals GDP in the long run after adjusting for the [price level](https://www.investopedia.com/terms/p/price_level.asp). This is because short-run aggregate demand measures total output for a single nominal price level, not necessarily (and in fact rarely) [equilibrium](https://www.investopedia.com/terms/e/equilibrium.asp). In nearly all models, however, the price level is assumed to be “one” for simplicity. Other variations in calculations can occur depending on methodological variations or timing issues in gathering statistics.

Aggregate demand is by its very nature general, not specific. All [consumer goods](https://www.investopedia.com/terms/c/consumer-goods.asp), [capital goods](https://www.investopedia.com/terms/c/capitalgoods.asp), exports, imports, and government spending programs are considered equal so long as they traded at the same market value.

**An Overview of Indian System of National Accounts**

* The Indian System of National Accounts to include regional accounts at the State level and below. The term National Accounts Statistics (NAS) in this overview should be interpreted in the inclusive sense.
* The NAS is a framework that provides an internally consistent description of National macro economy based on the processing of data generated by the entire National statistical system. The estimates of National income and related aggregates and accounts are derived statistics that draw on basic data available from different primary sources. The primary sources consist of data generated as a by-product of public administration system (such as land records, collection of direct and indirect taxes, civil registration of births and deaths, etc.) as well as data collected directly through censuses and sample surveys conducted by official agencies of the Central and State Governments.
* The accuracy and quality of the National account estimates depend on (a) geographical coverage and quality of primary data; and (b) the methods, procedures and approximations used in translating the primary data into NAS framework.
* The National Accounts Division (NAD) of the Central Statistical Organisation (CSO) maintains detailed, well documented methods and procedures unchanged till the revision of the base year when efforts are made to bring about improvements in these respects while bridging data gaps and introducing newly available better quality data.
* National Sample Survey Organisation (NSSO) has been carrying out periodic surveys that provide input into the National income estimation.
* Standard texts on National Accounts do mention independent checks on National account aggregates by estimating them through three alternative methods: income, expenditure and commodity flow. Data limitations however, do not permit these independent consistency checks. Often, certain National account identities are used to derive certain components as residuals. For example, aggregate PFCE in the Indian system of National Accounts.

**Sources of data on Indian Economy**

[Economic Indicators](https://www.investopedia.com/university/releases/) and associated parameters provide the important data points to enable informed decision making. This article discusses the key sources to get the up to date information about [economic indicators](https://www.investopedia.com/terms/e/economic_indicator.asp) of India. Let’s begin with government authorized official sources of economic data for India.

* **EA data**: Looking for official government data for Indian economy? The office of Economic Adviser under Ministry of Commerce & Industry publishes detailed reports covering all official economic numbers and figures for the nation. The most up to date, regularly published [Key Indicators Report](http://www.eaindustry.nic.in/key_economic_indicators/Key_Economic_Indicators.pdf) covers all the latest statistics covering [GDP](https://www.investopedia.com/terms/g/gdp.asp), inflation, agricultural production, employment, savings, investments, core industries growth, export, import, [government securities](https://www.investopedia.com/terms/g/governmentsecurity.asp) yield, monetary indicators, etc. applicable to the Indian economy. The report is large and comprehensive with datasets split across 33 different data tables.
* **Planning Commission of India**: Another official source of information on Indian economic indicators, [PCI](http://planningcommission.nic.in/data/datatable/index.php?data=datatab) offers more than 200 dedicated reports in PDF form, each covering multiple datasets offering a wealth of information to the end user. The 200+ reports are available under the categories of
	+ Indian Economy Related (national summary level reports)
	+ Agriculture,  Food Consumption & Poverty  Related
	+ Annual Plan of States (Province) Related
	+ State-wise Indicators of Poverty & Per-capita Expenditure, Labour Force & Employment Related
	+ World Trade, Exports, Imports, [FDI](https://www.investopedia.com/terms/f/fdi.asp), [Balance of Payments](https://www.investopedia.com/terms/b/bop.asp) Related
	+ Power, Energy and Irrigation Related
	+ State Plans Related
	+ Social Sector - Health & Family Welfare Related
	+ Social Sector – Drinking Water & Education
	+ World Economy & [G-20](https://www.investopedia.com/terms/g/g-20.asp) Countries Related
	+ Census 2011 related
	+ Demographic & [Amenities](https://www.investopedia.com/terms/a/amenity.asp) data
* **Ministry of External Affairs**: MEA also covers detailed reports and macroeconomic indicators from the business perspective. The dedicated site [India in Business](http://indiainbusiness.nic.in/newdesign/index.php?param=economy) provides multiple detailed reports under different sections - Index of Industrial Production, National Income, Index of Eight Core Industries, India's Foreign trade, Investment Trends, Money and Banking, Capital Market and Consumer Market. Other sections include sector wise (agriculture, [real estate](https://www.investopedia.com/terms/r/realestate.asp), etc.) economic analysis, and surveys and budget details.

Along with official agencies, here are other sources for economic data on India.

* **Asian Development Bank**: ADB provides its own coverage and estimates for datasets for common economic indicators like GDP, inflation, [current account deficit](https://www.investopedia.com/terms/c/currentaccountdeficit.asp), etc. Based on Asian Development Outlook estimates, it also regularly publishes a detailed [report](http://www.adb.org/countries/india/economy) of a country’s economy, offering useful insights from a neutral [third party](https://www.investopedia.com/terms/t/third-party.asp) perspective.
* **Indexmundi**: [Indexmundi](http://www.indexmundi.com/india/economy_profile.html) provides a quick reference for key economic indicators for economies across the globe. Backed by a dedicated section on economy overview, the site also offers comparison tool for relative performance analysis and study.
* **World Bank**: WB offers economic data for all countries across the globe including [India](http://data.worldbank.org/country/india), under its own unique categories - World Development Indicators, Global Economic Prospects - Forecasts, Projects & Operations, Finances, Surveys and Climate. Available with rich online interactive charts, graphs, and features with tools for comparative analysis based on multiple parameters, WB also enables easy data download for offline analysis. For e.g., the Projects category, among other details, covers the geographical locations of the mentioned projects on an interactive map.



* **Economy Watch**: For a quick snapshot, as well as a detailed history up to the year 1980, [EW](http://www.economywatch.com/economic-statistics/country/india/) serves as a good source of information for economic indicators for India.

**The Bottom Line**

Indian economic indicators are available from numerous sources, including multiple government agencies, departments and ministries. Combined with the data from other organizations, which maintain a politically-neutral stance, one has access to many tools to assess the country and its economy fairly.

UNIT III

* Classical theory of income determination
* Says law of market
* Determination of income and employment in classical system
* Keynes objection to classical theory

# Classical Theory of Income and Employment

**Points to be remembered:**

* **Employment:** A situation when a person is able and willing to take up a job and gets employed.
* **Full Employment:** A situation where all those workers who are able and willing to work get employment.
* **Under Employment:** A situation when people are engaged in jobs but they do not get these jobs according to their capabilities, efficiency and qualifications.
* **Unemployment:** A situation when a person is willing to work but does not get opportunity to work.
* **Involuntary Unemployment:** A situation when the workers are willing to work under any conditions and at any wage rate but they fail to get employment.
* **Voluntary Unemployment** When the economy offers employment opportunities to the workers, but they themselves are not willing to take up jobs because the employment conditions such as wage rate, location, promotional avenues, physical environment, attitude of the employer, etc., do not suit them.
* **Cyclical Unemployment** It is caused by slackness in business conditions. During depression, investment activities get discouraged. Contraction in business activities renders large numbers of workers unemployed.
* **Technological Unemployment** It is generally found in the advanced countries. The main cause of this unemployment is the introduction of the new technology.
* **Frictional Unemployment** It is a temporary unemployment which exists during the period of the transfer of labor from one occupation to another.
* **Structural Unemployment** It is the result of the backwardness and underdevelopment of an economy.
* **Disguised Unemployment:** When more workers are engaged in a work than actually required to work, it is called disguised unemployment.
* **Equilibrium level of employment):** level of employment where aggregate demand equals aggregate supply.
* **Full employment level:** the level of employment where all the available supply of labour is gainfully employed.
* **Excess demand:** when aggregate demand exceeds aggregate supply at full employment level.
* **Deficient demand: when** aggregate demand falls short of aggregate supply at full employment level.
* **Inflationary gap:** it occurs as an excess of anticipated expenditure over available output at full employment level.
* **Deflationary gap** it occurs as an excess of available aggregate output over anticipated aggregate expenditure.
* **Ex- ante saving: Ex**- ante saving is what the savers plan (or intend) to save at different levels of income in an economy. It is also known as intended saving or planned saving.
* **Ex- post saving it** refers to actual or realized saving in an economy during a year.
* **Ex- ante Investment** Ex- ante investment is what the investors plan (or intend) to invest at different levels of income in an economy. It is also known as intended investment or planned investment.
* **Ex- post investment: It** refers to actual or realized investment in an economy during a year.

**Classical Theory of Income and Employment:**

Old classical economists like Adam Smith, Ricardo, J. B. Say, J. S. Mill, and N. Senior believe in *laissez faire* policy (no government intervention in any economic activities) developed the classical theory of employment. This theory states that full employment is a normal feature of a capitalist economy. The classical theory of employment rules out the possibility of unemployment in a free market economy. The economy would always be in full employment equilibrium.

The classical theory of employment is based on the following assumptions:

* The Say’s law of market;
* Flexibility of the interest rates;
* Flexibility of the wage rates.

According to ***Say’s Law of Market***, “The supply creates its own demand”. It is an automatic mechanism which establishes equilibrium between aggregate demand and aggregate supply.

The implication of the classical system is that there will never be a possibility of over- production or under- production in the economy.

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During the Great Depression of 1930s, the Classical Theory of Employment failed miserably.

Prof. J. M. Keynes developed a new theory of employment in his book “*General Theory of Employment, Interest and Money*” published in 1936.

Keynesian theory of employment is based on the concept of effective demand. Keynes states that *demand creates its own supply*.

Effective demand means the level of income where aggregate demand and aggregate supply are equal.

Prof. J. M. Keynes used the approach of aggregate demand and aggregate supply for the determination of full employment equilibrium.

**Aggregate Demand**

The total demand for goods and services in an economy in a year’s time is called aggregate demand. It is expressed in terms of total expenditure of the community.

Goods and services are demanded for two purposes- (1) Consumption, and (2) Investment.

Consumption is of two types: private (household) consumption and public (government) consumption. Similarly, investment is also of two types: private (household) investment and public (government) investment.

Aggregate Demand (AD) = Consumption Demand (C) + Investment Demand (I)

AD = C + I

Y = C + I

**Aggregate Demand Schedule:**

The aggregate demand schedule can be drawn by aggregating- aggregate consumption (C) and aggregate investment (I) at different levels of income.

Consumption depends on income (Y), propensity to consume (c) and many other factors.

C = a + cY

**Relationship between Income and Consumption:**

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| --- |
| ***(SR ‘000 Crores)*** |
| **Income**  | **Consumption**  |
| 0 | 20 |
| 10 | 25 |
| 20 | 30 |
| 30 | 35 |
| 40 | 40 |
| 50 | 45 |
| 60 | 50 |

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**Aggregate Investment:**

It is of two types- autonomous investment and induced investment.

**Autonomous Investment:** It is that expenditure on capital formation which is undertaken independently of the level of income.

**Induced Investment:** It is expenditure both on fixed assets and on the stocks that are required if the economy is to be able to produce a bigger output as aggregate demand rises.

Here, we assume that only investment expenditure that is incurred in the economy is in the form of autonomous investment.

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| --- |
| ***(SR ‘000 Crores)*** |
| **Income** | **Investment** |
| 0 | 20 |
| 10 | 20 |
| 20 | 20 |
| 30 | 20 |
| 40 | 20 |
| 50 | 20 |
| 60 | 20 |

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Aggregate demand schedule can be derived by adding consumption schedule and investment schedule.

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| **Income (Y)** | **Consumption (C)** | **Investment (I)** | **Aggregate Demand (AD = C + I)** |
| 0 | 20 | 20 | 40 |
| 10 | 25 | 20 | 45 |
| 20 | 30 | 20 | 50 |
| 30 | 35 | 20 | 55 |
| 40 | 40 | 20 | 60 |
| 50 | 45 | 20 | 65 |
| 60 | 50 | 20 | 70 |

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**Components of Aggregate Demand:**

There are four major components of aggregate demand-

1. Household consumption expenditure (C);
2. Government final consumption expenditure (G);
3. Private and public investment expenditure (I); and
4. Net export (X-M)

**Symbolically,**

AD = C + I + G + (X-M)

**Aggregate Supply:**

It refers to the money value of all goods and services produced in a country in a year’s time. It, in fact, refers to the national income of a country because it is the money value of all goods and services produced in a year’s time.

Aggregate Supply = Domestic Product = Total Factor Incomes = National Income

Aggregate Supply (AS) = Consumption (C) + Saving (S)

Y = C + S

**Aggregate Supply Schedule:**

Aggregate supply schedule can be formed by aggregating consumption expenditure and savings at different levels of income.

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| **Income (Y)** | **Consumption (C)** | **Savings (S)** | **Aggregate Supply (AS = C + S)** |
| 0 | 20 | -20 | 0 |
| 10 | 25 | -15 | 10 |
| 20 | 30 | -10 | 20 |
| 30 | 35 | -5 | 30 |
| 40 | 40 | 0 | 40 |
| 50 | 45 | 5 | 50 |
| 60 | 50 | 10 | 60 |
| 70 | 55 | 15 | 70 |

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**Determination of Equilibrium:**

Determination equilibrium of an economy can be studied by two approaches:

1. As equality of aggregate demand and aggregate supply; and
2. As equality of saving and investment.

**AS and AD Approach:**

Equilibrium level of income is determined where aggregate demand curve cuts aggregate supply. In other words, the level of income will be in equilibrium where aggregate demand is equal to aggregate supply.

**Example:**

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| **(SR ’000 Million)**

|  |  |  |
| --- | --- | --- |
| **Income (Y)** | **Aggregate Demand (AD= C+I)** | **Aggregate Supply (AS= C+S)** |
| **0** | **40** | **0** |
| **10** | **45** | **10** |
| **20** | **50** | **20** |
| **30** | **55** | **30** |
| **40** | **60** | **40** |
| **50** | **65** | **50** |
| **60** | **70** | **60** |
| **70** | **75** | **70** |
| **80** | **80** | **80** |
| **90** | **85** | **90** |
| **100** | **90** | **100** |

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**If Aggregate Demand is not equal to Aggregate Supply:**

|  |  |
| --- | --- |
|  **Aggregate Demand (AD) =**  |  **Aggregate Supply (AS)** |
|  |  |
| If AD > AS | If AD < AS |
| ↓ | ↓ |
| Increase in employment of factor services | Decrease in employment of factor services |
| ↓ |  |
| Increase in the level of output of goods and services | Decrease in the level of output of goods and services |
| ↓ | ↓ |
| Ultimately AD = AS | Ultimately AD = AS |
| Description: https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcQuc_6F-16hpG-n52_G3LcK3YCyfyVYecysEDhSau5pokSXKbbwDQ | Description: https://encrypted-tbn2.gstatic.com/images?q=tbn:ANd9GcSFK2fSf5f75RsJaOcyk1g8NPaOWLzAWPlBOVwAYnN7jVPJfNbrvQ |

**Alternative Approach to Equilibrium (Saving and Investment Approach):**

Since, AD is:

Y = C + I, ……………………………………… (1)

And,

AS is:

Y = C + S, …………………………………….. (2)

By putting together equations (1) and (2), we get

 C + I = C + S

Hence,

I = S

i.e., aggregate investment equals aggregate saving in the economy.

**Diagrammatic Presentation:**

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| --- | --- | --- | --- |
| **Income (Y)** | **Consumption (C)** | **Saving (S)** | **Investment (I)** |
| 0 | 20 | -20 | 20 |
| 10 | 25 | -15 | 20 |
| 20 | 30 | -10 | 20 |
| 30 | 35 | -5 | 20 |
| 40 | 40 | 0 | 20 |
| 50 | 45 | 5 | 20 |
| 60 | 50 | 10 | 20 |
| 70 | 55 | 15 | 20 |
| **80** | **60** | **20** | **20** |
| 90 | 65 | 25 | 20 |
| 100 | 70 | 30 | 20 |

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Equilibrium level of employment (or income) is determined by the intersection of the aggregate demand and aggregate supply schedule.

*The classical economists* held the view that this equilibrium level of employment would be full employment level. There will be no involuntary unemployment either of labour or of capital. If there were to be any unemployment resources, wage rates and interest rates would move. Movement in the wage rates and interest rates would serve to bring full employment in the economy.

Prof. J. M. Keynes did not agree with this view of the classical economists. He gave three types of equilibrium situations:

1. Equilibrium at full employment level;
2. Equilibrium at less than full employment level;
3. Equilibrium at more than full employment level;

***Equilibrium at full employment level:*** this will obtain when the equality of AD and AS occurs at a level where at the available resources are gainfully employed.

***Equilibrium at less than full employment level (Deflationary gap):*** this will occur when the aggregate demand is not sufficient to absorb all those who seek employment. Clearly, there will be involuntary unemployment in the economy. This would have been caused by deficient demand.

***Equilibrium at more than full employment level (Inflationary gap):*** this will occur when the available resources in the economy are not sufficient to meet the aggregate demand for goods and services. Clearly, this situation is caused by excess demand in the economy.

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| **Description: Output and Income** | Description: http://www.economicsdiscussion.net/wp-content/uploads/2014/02/clip_image002_thumb22.jpg |

**Causes of Excess Demand (*Inflationary gap*) and Deficient Demand (*Deflationary gap*):**

|  |
| --- |
| **Causes** |
| **Of Excess Demand** | **Of Deficient Demand** |
| * Government expenditure > Government revenue
 | * Government expenditure < Government revenue
 |
| * Increase in autonomous investment
 | * Cut in autonomous investment
 |
| * Surplus on balance of payments
 | * Deficits in balance of payments
 |
| * Increase in capital formation
 | * Cut in capital formation
 |

**Effects of Excess Demand:**

In case of excess demand, the planned aggregate expenditure is more than the planned aggregate output. All the available resources are already fully employed. Therefore, there is no chance to increase the level of employment further.

Likewise, since no additional resources are available, it will not be possible either to increase the level of output.

But, in case, there is already full employment in the economy large aggregate expenditure in the economy would result in a rise in the general price level. Thus, excess demand has a general inflationary potential and that is why excess demand is known as inflationary gap.

**Effects of Deficient Demand:**

In case of deficient demand, the planned aggregate expenditure is less than the planned aggregate output. In this case, there will be tendency to curtail the employment.

Since the aggregate output cannot be absorbed by the aggregate expenditure, the surplus availability of output will result in a fall in the general price level. Thus, deficient demand has a general deflationary potential and that is why it is also known as deflationary gap.

**Measures to Correct Deficient Demand:**

1. *Fiscal policy:*
* Reduction in tax rates; and
* Increase in government expenditure.
1. *Monetary policy:*
* Reduction in bank rate;
* Reduction in reserve ratios; and
* Purchase of government securities.
1. *Export promotion:*

**Measures to Correct Excess Demand:**

1. *Fiscal policy:*
* Rise in tax rates; and
* Decrease in government expenditure.
1. *Monetary policy:*
* Rise in bank rate;
* Increase in reserve ratios; and
* Sale of government securities.
1. *Import promotion:*

#

**Keynes’ Criticism:**

**Keynes criticised the classical theory on three main grounds:**

(a) Saving depends on national income and is not affected by changes in interest rates. Investment may, of course, be influenced by it, although it depends on future profit expectations. Thus S-I equality through adjust­ment in interest rate is ruled out. So, Say’s Law will no longer hold.

(b) The labour market is far from perfect because of the existence of trade unions and government intervention in the form of imposition of minimum wage laws. Thus, wages are unlikely to be flexible. Trade unions may succeed in raising wages even when there is no excess demand for labour, rather there is excess supply.

Wages are more inflexible downward than upwards. So, a fall in demand (when S exceeds I) will lead to fall in production and employment. The problem is not one of involuntary idle­ness of resources including manpower.

(c) Keynes also argued that’ even if wages and prices were flexible a free enterprise economy would not always be able to achieve automatic full employment. In a depression economy monetary policy would lose its effectiveness and would be unable to influence the rate of interest and thus the volume of investment and the level of income. The interest inelasticity of investment has been a subject matter of much debate and controversy.

**Unit V**

* **Demand and Supply theory of money / Quantity Theory of Money**
* **Price theory of money /** **The Keynesian Theory of Money and Prices**
* **Liquidity theory of money**
* **Commercial banking**
* **Central Banking**
* **Credit Management**
* **Inflation and Deflation**

**Quantity Theory of Money?**

The concept of the [quantity theory of money](https://www.investopedia.com/terms/q/quantity_theory_of_money.asp) (QTM) began in the 16th century. As gold and silver inflows from the Americas into Europe were being minted into coins, there was a resulting rise in inflation. This development led economist Henry Thornton in 1802 to assume that more money equals more inflation and that an increase in money supply does not necessarily mean an increase in economic output. Here we look at the assumptions and calculations underlying the QTM, as well as its relationship to monetarism and ways the theory has been challenged.

### QTM in a Nutshell

The quantity theory of money states that there is a direct relationship between the quantity of money in an economy and the level of prices of goods and services sold. According to QTM, if the amount of money in an economy doubles, price levels also double, causing [inflation](https://www.investopedia.com/terms/i/inflation.asp) (the percentage rate at which the level of prices is rising in an economy). The consumer, therefore, pays twice as much for the same amount of the good or service.

Another way to understand this theory is to recognize that money is like any other commodity: increases in its supply decrease marginal value (the buying capacity of one unit of currency). So an increase in money supply causes prices to rise (inflation) as they compensate for the decrease in money's marginal value.

### The Theory's Calculations

The theory, also known as the [Fisher Equation](https://www.investopedia.com/terms/f/fishereffect.asp), is most simply expressed as:

**MV**=PTwhere:

**M**=Money Supply

**V**=Velocity of Circulation (the number of times money changes hands)

**P**=Average Price

**LevelT**=Volume of Transactions of Goods and Services\begin{aligned}

 **&MV = PT\\ &\textbf{where:}\\ &M=\text{Money Supply}\\ &V=\text{Velocity of Circulation (the number of times money changes hands)}\\ &P=\text{Average Price Level}\\ &T=\text{Volume of Transactions of Goods** and Services}\\ \end{aligned}​MV=PTwhere

:M=Money

SupplyV=Velocity of Circulation (the number of times money changes hands)

P=Average Price

 LevelT=Volume of Transactions of Goods and Services​﻿

The original theory was considered orthodox among 17th century classical economists and was overhauled by 20th-century economists Irving Fisher, who formulated the above equation, and [Milton Friedman](https://www.investopedia.com/terms/m/milton-friedman.asp). (For more on this important economist, see [Free Market Maven: Milton Friedman](https://www.investopedia.com/articles/economics/09/milton-friedman.asp).)

**It is built on the principle of "equation of exchange":**

**Total Spending=Amount of money×Velocity of circulation\text{Total Spending} = \text{Amount of money} \times \text{Velocity of circulation}Total Spending=Amount of money×Velocity of circulation﻿**

Thus, if an economy has US$3, and those $3 were spent five times in a month, total spending for the month would be $15.

### QTM Assumptions

* In its most basic form, the theory assumes that **V** (velocity of circulation) and **T** (volume of transactions) are constant in the short term. These assumptions, however, have been criticized, particularly the assumption that V is constant. The arguments point out that the velocity of circulation depends on consumer and business spending impulses, which cannot be constant.
* The theory also assumes that the quantity of money, which is determined by outside forces, is the main influence of economic activity in a society. A change in [money supply](https://www.investopedia.com/terms/m/moneysupply.asp) results in changes in price levels and/or a [change in supply](https://www.investopedia.com/terms/c/change_in_supply.asp) of goods and services. It is primarily these changes in money stock that cause a change in spending. And the velocity of circulation depends not on the amount of money available or on the [current price](https://www.investopedia.com/terms/c/currentprice.asp) level but on changes in price levels.
* Finally, the number of transactions (**T**) is determined by labor, capital, natural resources (i.e. the factors of production), knowledge and organization. The theory assumes an economy in equilibrium and at [full employment](https://www.investopedia.com/terms/f/fullemployment.asp).
* Essentially, the theory's assumptions imply that the value of money is determined by the amount of money available in an economy. An increase in money supply results in a decrease in the value of money because an increase in money supply causes a rise in inflation. As inflation rises, the [purchasing power](https://www.investopedia.com/terms/p/purchasingpower.asp), or the value of money, decreases. It therefore will cost more to buy the same quantity of goods or services.

### Money Supply, Inflation, and Monetarism

As QTM says that quantity of money determines the value of money, it forms the cornerstone of [monetarism](https://www.investopedia.com/terms/m/monetarism.asp).

[Monetarists](https://www.investopedia.com/terms/m/monetarist.asp) say that a rapid increase in money supply leads to a rapid increase in inflation. Money growth that surpasses the growth of economic output results in inflation, as there is too much money behind too little production of goods and services. In order to curb inflation, money growth must fall below growth in economic output.

This premise leads to how [monetary policy](https://www.investopedia.com/terms/m/monetarypolicy.asp) is administered. Monetarists believe that money supply should be kept within an acceptable bandwidth so that levels of inflation can be controlled. Thus, for the [near term](https://www.investopedia.com/terms/n/nearterm.asp), most monetarists agree that an increase in money supply can offer a quick-fix boost to a staggering economy in need of increased production. In the long term, however, the effects of monetary policy are still blurry.

Less orthodox monetarists, on the other hand, hold that an expanded money supply will not have any effect on real economic activity (production, employment levels, spending and so forth). But for most monetarists, any anti-inflationary policy will stem from the basic concept that there should be a gradual reduction in the money supply. Monetarists believe that instead of governments continually adjusting economic policies (i.e. government spending and taxes), it is better to let non-inflationary policies (i.e. gradual reduction of money supply) lead an economy to full employment.

### QTM Re-Experienced

### [John Maynard Keynes](https://www.investopedia.com/terms/j/john_maynard_keynes.asp) challenged the theory in the 1930s, saying that increases in money supply lead to a decrease in the velocity of circulation and that [real income](https://www.investopedia.com/terms/r/realincome.asp), the flow of money to the [factors of production](https://www.investopedia.com/terms/f/factors-production.asp), increased. Therefore, velocity could change in response to changes in money supply. It was conceded by many economists after him that Keynes' idea was accurate.QTM, as it is rooted in monetarism, was very popular in the 1980s among some major economies such as the United States and Great Britain under Ronald Reagan and Margaret Thatcher respectively. At the time, leaders tried to apply the principles of the theory to economies where money growth targets were set. However, as time went on, many accepted that strict adherence to a controlled money supply was not necessarily the cure-all for economic malaise.

# The Keynesian Theory of Money and Prices

Keynes does not agree with the older quantity theorists that there is a direct and proportional relationship between quantity of money and prices. According to him, the effect of a change in the quantity of money on prices is indirect and non-proportional.

Keynes complains “that economics has been divided into two compartments with no doors or windows between the theory of value and the theory of money and prices.” This dichotomy between the relative price level (as determined by demand and supply of goods) and the absolute price level (as determined by demand and supply of money) arises from the failure of the classical monetary economists to integrate value theory with monetary theory. Consequently, changes in the money supply affect only the absolute price level but exercise no influence on the relative price level.

Further, Keynes criticises the classical theory of static equilibrium in which money is regarded as neutral and does not influence the economy’s real equilibrium relating to relative prices. According to him, the problems of the real world are related to the theory of shifting equilibrium whereas money enters as a “link between the present and future”.

### Keynes’s Reformulated Quantity Theory of Money:

The Keynesian reformulated quantity theory of money is based on the following:

#### ****Assumptions:****

1. All factors of production are in perfectly elastic supply so long as there is any unemployment.

2. All unemployed factors are homogeneous, perfectly divisible and interchangeable.

3. There are constant returns to scale so that prices do not rise or fall as output increases.

4. Effective demand and quantity of money change in the same proportion so long as there are any unemployed resources.

Given these assumptions, the Keynesian chain of causation between changes in the quantity of money and in prices is an indirect one through the rate of interest. So when the quantity of money is increased, its first impact is on the rate of interest which tends to fall. Given the marginal efficiency of capita], a fall in the rate of interest will increase the volume of investment.

The increased investment will raise effective demand through the multiplier effect thereby increasing income, output and employment. Since the supply curve of factors of production is perfectly elastic in a situation of unemployment, wage and non-wage factors are available at constant rate of remuneration. There being constant returns to scale, prices do not rise with the increase in output so long as there is any unemployment.

Under the circumstances, output and employment will increase in the same proportion as effective demand, and the effective demand will increase in the same proportion as the quantity of money. But “once full employment is reached, output ceases to respond at all to changes in the supply of money and so in effective demand. The elasticity of supply of output in response to changes in the supply, which was infinite as long as there was unemployment falls to zero. The entire effect of changes in the supply of money is exerted on prices, which rise in exact proportion with the increase in effective demand.”

Thus so long as there is unemployment, output will change in the same proportion as the quantity of money, and there will be no change in prices; and when there is full employment, prices will change in the same proportion as the quantity of money. Therefore, the reformulated quantity theory of money stresses the point that with increase in the quantity of money prices rise only when the level of full employment is reached, and not before this.

This reformulated quantity theory of money is illustrated in Figure 67.1 (A) and (B) where OTC is the output curve relating to the quantity of money and PRC is the price curve relating to the quantity of money. Panel A of the figure shows that as the quantity of money increases from О to M, the level of output also rises along the ОТ portion of the OTC curve.

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As the quantity of money reaches OM level, full employment output OQF is being produced. But after point T the output curve becomes vertical because any further increase in the quantity of money cannot raise output beyond the full employment level OQF.

Panel В of the figure shows the relationship between quantity of money and prices. So long as there is unemployment, prices remain constant whatever the increase in the quantity of money. Prices start rising only after the full employment level is reached.

In the figure, the price level OP remains constant at the OM quantity of money corresponding to the full employment level of output OQ1. But an increase in the quantity of money above OM raises prices in the same proportion as the quantity of money. This is shown by the RC portion of the price curve PRC.

Keynes himself pointed out that the real world is so complicated that the simplifying assumptions, upon which the reformulated quantity theory of money is based, will not hold. According to him, the following possible complications would qualify the statement that so long as there is unemployment, employment will change in the same proportion as the quantity of money, and when there is full employment, prices will change in the same proportion as the quantity of money.”

(1) “Effective demand will not change in exact proportion to the quantity of money.

(2) Since resources are homogenous, there will be diminishing, and not constant returns as employment gradually increases.

(3) Since resources are not interchangeable, some commodities will reach a condition of inelastic supply while there are still unemployed resources available for the production of other commodities.

(4) The wage-unit will tend to rise, before full employment has been reached.

(5) The remunerations of factors entering into marginal cost will not all change in the same proportion.”

Taking into account these complications, it is clear that the reformulated quantity theory of money does not hold. An increase in effective demand will not change in exact proportion to the quantity of money, but it will partly spend itself in increasing output and partly in increasing the price level. So long as there are unemployed resources, the general price level will not rise much as output increases. But a sudden large increase in aggregate demand will encounter bottlenecks when resources are still unemployed.

It may be that the supply of some factors becomes inelastic or others may be in short supply and are not interchangeable. This may lead to increase in marginal cost and price. Price would accordingly rise above average unit cost and profits would increase rapidly which, in turn, tend to raise money wages owing to trade union pressures. Diminishing returns may also set in. As full employment is reached, the elasticity of supply of output falls to zero and prices rise in proportion to the increase in the quantity of money.

The complicated model of the Keynesian theory of money and prices is shown diagrammatically in Figure 67.2 in terms of aggregate supply (S) and aggregate demand (D) curves. The price level is measured on the vertical axis and output on the horizontal axis.

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According to Keynes, an increase in the quantity of money increases aggregate money demand on investment as a result of the fall in the rate of interest. This increases output and employment in the beginning but not the price level. In the figure, the increase in the aggregate money demand from D1 to D2 raises output from OQ1 to OQ2 but the price level remains constant at OP. As aggregate money demand increases further from D2 to D3 output increases from OQ2 to OQ3 and the price level also rises to OP3.

This is because costs rise as bottlenecks develop through the immobility of resources. Diminishing returns set in and less efficient labour and capital are employed. Output increases at a slower rate than a given increase in aggregate money demand, and this leads to higher prices. As full employment is approached, bottlenecks increase. Further-more, rising prices lead to increased demand, especially for stocks. Thus prices rise at an increasing rate. This is shown over the range in the figure.

But when the economy reaches the full employment level of output, any further increase in aggregate money demand brings about a proportionate increase in the price level but output remains unchanged at that level. This is shown in the figure when the demand curve D5 shifts upward to D6 and the price level increases from OP5 to OP6 while the level of output remains constant at OQF.

### Superiority of the Keynesian Theory over the Traditional Quantity Theory of Money:

The Keynesian theory of money and prices is superior to the traditional quantity theory of money for the following reasons.

Keynes’s reformulated quantity theory of money is superior to the traditional approach in that he discards the old view that the relationship between the quantity of money and prices is direct and proportional. Instead, he establishes an indirect and non-proportional relationship between quantity of money and prices.

In establishing such a relationship, Keynes brought about a transition from a pure monetary theory of prices to a monetary theory of output and employment. In so doing, he integrates monetary theory with value theory. He integrates monetary theory with value theory and also with the theory of output and employment through the rate of interest.

In fact, the integration between monetary theory and value theory is done through the theory of output in which the rate of interest plays the crucial role. When the quantity of money increases the rate of interest falls which increases the volume of investment and aggregate demand thereby raising output and employment. In this way, monetary theory is integrated with the theory of output and employment.

As output and employment increase they further raise the demand for factors of production. Consequently, certain bottlenecks appear which raise the marginal cost including money wage rates. Thus prices start rising.

Monetary theory is integrated with value theory in this way. The Keynesian theory is, therefore, superior to the traditional quantity theory of money because it does not keep the real and monetary sectors of the economy into two separate compartments with ‘no doors or windows between the theory of value and the theory of money and prices.’

Again, the traditional quantity theory is based on the unrealistic assumption of full employment of resources. Under this assumption, a given increase in the quantity of money always leads to a proportionate increase in the price level. Keynes, on the other hand, believes that full employment is an exception.

Therefore, so long as there is unemployment, output and employment will change in the same proportion as the quantity of money, but there will be no change in prices; and when there is full employment, prices will change in the same proportion as the quantity of money. Thus the Keynesian analysis is superior to the traditional analysis because it studies the relationship between the quantity of money and prices both under unemployment and full employment situations.

Further, the Keynesian theory is superior to the traditional quantity theory of money in that it emphasises important policy implications. The traditional theory believes that every increase in the quantity of money leads to inflation.

Keynes, on the other hand, establishes that so long as there is unemployment, the rise in prices is gradual and there is no danger of inflation. It is only when the economy reaches the level of full employment that the rise in prices is inflationary with every increase in the quantity of money. Thus “this approach has the virtue of emphasising that the objectives of full employment and price stability may be inherently irreconcilable.”

### Criticisms of Keynes Theory of Money and Prices:

Keynes’ views on money and prices have been criticised by the monetarists on the following grounds.

#### 1. Direct Relation:

Keynes mistakenly took prices as fixed so that the effect of money appears in his analysis in terms of quantity of goods traded rather than their average prices. That is why Keynes adopted an indirect mechanism through bond prices, interest rates and investment of the effects of monetary changes on economic activity. But the actual effects of monetary changes are direct rather than indirect.

#### 2. Stable Demand for Money:

Keynes assumed that monetary changes were largely absorbed by changes in the demand for money. But Friedman has shown on the basis of his empirical studies that the demand for money is highly stable.

#### 3. Nature of Money:

Keynes failed to understand the true nature of money. He believed that money could be exchanged for bonds only. In fact, money can be exchanged for many different types of assets like bonds, securities, physical assets, human wealth, etc.

#### 4. Effect of Money:

Since Keynes wrote for a depression period, this led him to conclude that money had little effect on income. According to Friedman, it was the contraction of money that precipitated the depression. It was, therefore, wrong on the part of Keynes to argue that money had little effect on income. Money does affect national income.

**What is Liquidity Preference Theory?**

Liquidity preference theory suggests that an investor demands a higher interest rate or premium on securities with long-term maturities that carry greater risk because, all other factors being equal, investors prefer cash or other highly liquid holdings.

According to this theory, investments that are more liquid are easier to cash in for full value. Cash is commonly accepted as the most liquid asset. According to the liquidity preference theory, interest rates on short-term securities are lower because investors are not sacrificing liquidity for greater time frames than medium or longer-term securities.

The Liquidity Preference Theory says that the demand for money is not to borrow money but the desire to remain liquid. In other words, the interest rate is the ‘price’ for money.[John Maynard Keynes](https://www.econlib.org/library/Enc/bios/Keynes.html) created the Liquidity Preference Theory in to explain the role of the interest rate by the supply and demand for money. According to Keynes, the demand for money is split up into three types – ***Transactionary, Precautionary and Speculative.He also said that money is the most liquid asset and the more quickly an asset can be converted into cash, the more liquid it is.***

First, the **transactions motive** states that individuals have a preference for liquidity in order to guarantee having sufficient cash on hand for basic day-to-day needs. In other words, stakeholders have a high demand for liquidity to cover their short-term obligations, such as buying groceries, paying rent and/or the mortgage. Higher costs of living mean a higher demand for cash/liquidity to meet those day-to-day needs.

Second, the **precautionary motive** relates to an individual's preference for additional liquidity in the event that an unexpected problem or cost arises that requires a substantial outlay of cash. These events include unforeseen costs like house or car repairs.

Third, stakeholders may also have a **speculative motive**. When interest rates are low, demand for cash is high and they may prefer to hold assets until interest rates rise. The speculative motive refers to an investor's reluctance to tying up investment capital for fear of missing out on a better opportunity in the future.

When higher interest rates are offered, investors give up liquidity in exchange for higher rates. As an example, if interest rates are rising and bond prices are falling, an investor may sell their low paying bonds and buy higher paying bonds or hold onto the cash and wait for an even better rate of return.

# Commercial Bank: Definition, Function, Credit Creation and Significances

Definition

* ***Privately owned financial institution which***

 **(1) Accepts demand and time deposits,**

 **(2) Makes loans to individuals and organizations, and**

 **(3) Provides services such as documentary collections, international banking, trade financing.**

 Since a large proportion of a commercial bank's deposits is payable on demand, it prefers to make short-term loans instead of the long-term ones (which are handled by organizations such development finance companies and home mortgage companies).

A commercial bank is a financial institution which performs the functions of accepting deposits from the general public and giving loans for investment with the aim of earning profit.In fact, commercial banks, as their name suggests, axe profit-seeking institutions, i.e., they do banking business to earn profit.

### What Is a Commercial Bank?

A commercial bank is a type of financial institution that accepts deposits, offers checking account services, makes various loans, and offers basic financial products like [certificates of deposit](https://www.investopedia.com/terms/c/certificateofdeposit.asp) (CDs) and savings accounts to individuals and small businesses. A commercial bank is where most people do their banking, as opposed to an investment bank.

Commercial banks make money by providing loans and earning interest income from those loans. The types of loans a commercial bank can issue vary and may include mortgages, auto loans, business loans, and personal loans. A commercial bank may specialize in just one or a few types of loans.

Customer deposits, such as checking accounts, savings accounts, money market accounts, and CDs, provide banks with the capital to make loans. Customers who deposit money into these accounts effectively lend money to the bank and are paid interest. However, the [interest rate](https://www.investopedia.com/terms/i/interestrate.asp) paid by the bank on money they borrow is less than the rate charged on money they lend.

**Functions of Commercial Bank**



**The two most distinctive features of a commercial bank are borrowing and lending, i.e., acceptance of deposits and lending of money to projects to earn Interest (profit)**. In short, banks borrow to lend. The rate of interest offered by the banks to depositors is called the borrowing rate while the rate at which banks lend out is called lending rate.The difference between the rates is called ‘spread’ which is appropriated by the banks. Mind, all financial institutions are not commercial banks because only those which perform dual functions of

 **(i) accepting deposits and**

 **(ii) giving loans are termed as commercial banks**.

 For example post offices are not bank because they do not give loans. Functions of commercial banks are classified in to two main categories—(A) Primary functions and (B) Secondary functions.

**Let us know about each of them:**

#### (A) Primary Functions:

 **1. It accepts deposits:**

A commercial bank accepts deposits in the form of current, savings and fixed deposits. It collects the surplus balances of the Individuals, firms and finances the temporary needs of commercial transactions. The first task is, therefore, the collection of the savings of the public. The bank does this by accepting deposits from its customers. Deposits are the lifeline of banks.

**Deposits are of three types as under:**

**(i) Current account deposits:**

Such deposits are payable on demand and are, therefore, called demand deposits. These can be withdrawn by the depositors any number of times depending upon the balance in the account. The bank does not pay any Interest on these deposits but provides cheque facilities. These accounts are generally maintained by businessmen and Industrialists who receive and make business payments of large amounts through cheques.

**(ii) Fixed deposits (Time deposits):**

Fixed deposits have a fixed period of maturity and are referred to as time deposits. These are deposits for a fixed term, i.e., period of time ranging from a few days to a few years. These are neither payable on demand nor they enjoy cheque facilities.

They can be withdrawn only after the maturity of the specified fixed period. They carry higher rate of interest. They are not treated as a part of money supply Recurring deposit in which a regular deposit of an agreed sum is made is also a variant of fixed deposits.

**(iii) Savings account deposits:**

These are deposits whose main objective is to save. Savings account is most suitable for individual households. They combine the features of both current account and fixed deposits. They are payable on demand and also withdraw able by cheque. But bank gives this facility with some restrictions, e.g., a bank may allow four or five cheques in a month. Interest paid on savings account deposits in lesser than that of fixed deposit.

**Difference between demand deposits and time (term) deposits:**

**Two traditional forms of deposits are demand deposit and term (or time) deposit:**

(i) Deposits which can be withdrawn on demand by depositors are called demand deposits, e.g., current account deposits are called demand deposits because they are payable on demand but saving account deposits do not qualify because of certain conditions on withdrawal. No interest is paid on them. Term deposits, also called time deposits, are deposits which are payable only after the expiry of the specified period.

 (ii) Demand deposits do not carry interest whereas time deposits carry a fixed rate of interest.

(iii) Demand deposits are highly liquid whereas time deposits are less liquid,

(iv) Demand deposits are chequable deposits whereas time deposits are not.

**2. It gives loans and advances:**

The second major function of a commercial bank is to give loans and advances particularly to businessmen and entrepreneurs and thereby earn interest. This is, in fact, the main source of income of the bank. A bank keeps a certain portion of the deposits with itself as reserve and gives (lends) the balance to the borrowers as loans and advances in the form of cash credit, demand loans, short-run loans, overdraft as explained under.

**(i) Cash Credit:**

An eligible borrower is first sanctioned a credit limit and within that limit he is allowed to withdraw a certain amount on a given security. The withdrawing power depends upon the borrower’s current assets, the stock statement of which is submitted by him to the bank as the basis of security. Interest is charged by the bank on the drawn or utilised portion of credit (loan).

**(ii) Demand Loans:**

A loan which can be recalled on demand is called demand loan. There is no stated maturity. The entire loan amount is paid in lump sum by crediting it to the loan account of the borrower. Those like security brokers whose credit needs fluctuate generally, take such loans on personal security and financial assets.

**(iii) Short-term Loans:**

Short-term loans are given against some security as personal loans to finance working capital or as priority sector advances. The entire amount is repaid either in one instalment or in a number of instalments over the period of loan.

**Investment:**

**Commercial banks invest their surplus fund in 3 types of securities:**

(i) Government securities, (ii) Other approved securities and (iii) Other securities. Banks earn interest on these securities.

#### (B) Secondary Functions:

Apart from the above-mentioned two primary (major) functions, commercial banks perform the following secondary functions also.

**3. Discounting bills of exchange or bundles:**

A bill of exchange represents a promise to pay a fixed amount of money at a specific point of time in future. It can also be encashed earlier through discounting process of a commercial bank. Alternatively, a bill of exchange is a document acknowledging an amount of money owed in consideration of goods received. It is a paper asset signed by the debtor and the creditor for a fixed amount payable on a fixed date. It works like this.

Suppose, A buys goods from B, he may not pay B immediately but instead give B a bill of exchange stating the amount of money owed and the time when A will settle the debt. Suppose, B wants the money immediately, he will present the bill of exchange (Hundi) to the bank for discounting. The bank will deduct the commission and pay to B the present value of the bill. When the bill matures after specified period, the bank will get payment from A.

**4. Overdraft facility:**

An overdraft is an advance given by allowing a customer keeping current account to overdraw his current account up to an agreed limit. It is a facility to a depositor for overdrawing the amount than the balance amount in his account.

In other words, depositors of current account make arrangement with the banks that in case a cheque has been drawn by them which are not covered by the deposit, then the bank should grant overdraft and honour the cheque. The security for overdraft is generally financial assets like shares, debentures, life insurance policies of the account holder, etc.

**Difference between Overdraft facility and Loan:**

(i) Overdraft is made without security in current account but loans are given against security.

(ii) In the case of loan, the borrower has to pay interest on full amount sanctioned but in the case of overdraft, the borrower is given the facility of borrowing only as much as he requires.

(iii) Whereas the borrower of loan pays Interest on amount outstanding against him but customer of overdraft pays interest on the daily balance.

**5. Agency functions of the bank:**

**The bank acts as an agent of its customers and gets commission for performing agency functions as under:**

**(i) Transfer of funds:**

It provides facility for cheap and easy remittance of funds from place-to-place through demand drafts, mail transfers, telegraphic transfers, etc.

**(ii) Collection of funds:**

It collects funds through cheques, bills, bundles and demand drafts on behalf of its customers.

**(iii) Payments of various items:**

It makes payment of taxes. Insurance premium, bills, etc. as per the directions of its customers.

**(iv) Purchase and sale of shares and securities:**

It buys sells and keeps in safe custody securities and shares on behalf of its customers.

(v) Collection of dividends, interest on shares and debentures is made on behalf of its customers.

(iv) Acts as Trustee and Executor of property of its customers on advice of its customers.

**(vii) Letters of References:**

It gives information about economic position of its customers to traders and provides similar information about other traders to its customers.

**6. Performing general utility services:**

**The banks provide many general utility services, some of which are as under:**

(i) Traveller’s cheques .The banks issue traveler’s cheques and gift cheques.

(ii) Locker facility. The customers can keep their ornaments and important documents in lockers for safe custody.

(iii) Underwriting securities issued by government, public or private bodies.

(iv) Purchase and sale of foreign exchange (currency).

### Credit (Money) Creation by Commercial Banks

RBI produces money while commercial banks increase the supply of money by creating credit which is also treated as money creation. Commercial banks create credit in the form of secondary deposits.

**Mind, total deposits of a bank is of two types:**

* Primary deposits (initial cash deposits by the public) and
* Secondary deposits (deposits that arise due to loans given by the banks which are assumed to be redeposit in the bank.)

**Money creation by commercial banks is determined by two factors namely**

* Primary deposits i.e. initial cash deposits and
* Legal Reserve Ratio (LRR), i.e., minimum ratio of deposits which is legally compulsory for the commercial banks to keep as cash in liquid form.

Broadly when a bank receives cash deposits from the public, it keeps a fraction of deposits as cash reserve (LRR) and uses the remaining amount for giving loans. In the process of lending money, banks are able to create credit through secondary deposits many times more than initial deposits (primary deposits).

**How? It is explained below.**

#### Process of money (credit) creation:

Suppose a man, say X, deposits Rs 2,000 with a bank and the LRR is 10%, which means the bank keeps only the minimum required Rs 200 as cash reserve (LRR). The bank can use the remaining amount Rs 1800 (= 2000 – 200) for giving loan to someone. (Mind, loan is never given in cash but it is redeposited in the bank as demand deposit in favour of borrower.) The bank lends Rs 1800 to, say, Y who is actually not given loan but only demand deposit account is opened in his name and the amount is credited to his account.

This is the first round of credit creation in the form of secondary deposit (Rs 1800), which equals 90% of primary (initial) deposit. Again 10% of Y’s deposit (i.e., Rs 180) is kept by the bank as cash reserve (LRR) and the balance Rs 1620 (=1800 – 180) is advanced to, say, Z. The bank gets new demand deposit of Rs 1620. This is second round of credit creation which is 90% of first round of increase of Rs 1800. The third round of credit creation will be 90% of second round of 1620. This is not the end of story.

The process of credit creation goes on continuously till derivative deposit (secondary deposit) becomes zero. In the end, volume of total credit created in this way becomes multiple of initial (primary) deposit. The quantitative outcome is called money multiplier. If the bank succeeds in creating total credit of, says Rs 18000, it means bank has created 9 times of primary (initial) deposit of Rs 2000. This is what is meant by credit creation.

In short, money (or credit) creation by commercial banks is determined by (i) amount of initial (primary) deposits and (ii) LRR. The multiple is called credit creation or money multiplier.

**Symbolically:**

Total Credit creation = Initial deposits x 1/LPR.

#### Money Multiplier:

It means the multiple by which total deposit increases due to initial (primary) deposit. Money multiplier (or credit multiplier) is the inverse of Legal Reserve Ratio (LRR). If LRR is 10%, i.e., 10/100or 0.1, then money multiplier = 1/0.1 = 10.

Smaller the LRR, larger would be the size of money multiplier credited to his account. He is simply given the cheque book to draw cheques when he needs money. Again, 20% of Sohan’s deposit which is considered a safe limit is kept for him by the bank and the balance Rs 640 (= 80% of 800) is advanced to, say, Mohan. Thus, the process of credit creation goes on continuously and in the end volume of total credit created in this way becomes multiple of initial cash deposit.

The bank is able to lend money and charge interest without parting with cash because the bank loan simply creates a deposit (or credit) for the borrower. If the bank succeeds in creating credit of, say, Rs 15,000, it means that the bank has created credit 15 times of the primary deposit of Rs 1,000. This is what is meant by credit creation.

Similarly, the bank creates credit when it buys securities and pays the seller with its own cheque. The cheque is deposited in some bank and a deposit (credit) is created for the seller of securities. This is also called credit creation. As a result of credit creation, money supply in the economy becomes higher. It is because of this credit creation power of commercial banks (or banking system) that they are called factories of credit or manufacturer of money.

**Types of Commercial Banks:**

**The following chart depicts main types of commercial banks in India.**

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#### Scheduled Banks and Non-scheduled Banks:

Commercial banks are classified in two broad categories—scheduled banks and non-scheduled banks.

Scheduled banks are those banks which are included in Second Schedule of Reserve Bank of India. A scheduled bank must have a paid-up capital and reserves of at least Rs 5 lakh. RBI provides special facilities including credit to scheduled banks. Some of important scheduled banks are State Bank of India and its subsidiary banks, nationalised banks, foreign banks, etc.

#### ****Non-scheduled Banks:****

The banks which are not included in Second Schedule of RBI are known as non-scheduled banks. A non-scheduled bank has a paid-up capital and reserves of less than Rs 5 lakh. Clearly, such banks are small banks and their field of operation is also limited.

A passing reference to some other types of commercial banks will be informative.

Industrial Banks provide finance to industrial concerns by subscribing (buying) shares and debentures of companies and also give long-term loans to acquire machinery, plants, etc. Foreign Exchange Banks are commercial banks which are branches of foreign banks and facilitate international financial transactions through buying and selling of foreign bills.

Agricultural Banks finance agriculture and provide long-term loans for buying tractors and installing tube-wells. Saving Banks mobilise small savings of the people in savings account, e.g., Post office saving bank. Cooperative Banks are organised by the people for their own collective benefits. They advance loans to their members at fair rate of interest.

### Significance of Commercial Banks:

Commercial banks play such an important role in the economic development of a country that modern industrial economy cannot exist without them. They constitute nerve centre of production, trade and industry of a country. In the words of Wick-sell, “Bank is the heart and central point of modern exchange economy.”

**The following points highlight the significance of commercial banks:**

(i) They promote savings and accelerate the rate of capital formation.

(ii) They are source of finance and credit for trade and industry.

(iii) They promote balanced regional development by opening branches in backward areas.

(iv) Bank credit enables entrepreneurs to innovate and invest which accelerates the process of economic development.

(v) They help in promoting large-scale production and growth of priority sectors such as agriculture, small-scale industry, retail trade and export.

(vi) They create credit in the sense that they are able to give more loans and advances than the cash position of the depositor’s permits.

(vii)They help commerce and industry to expand their field of operation.

(viii) Thus, they make optimum utilisation of resources possible.

**Central Bank**

### What Is a Central Bank?

A central bank is a financial institution given privileged control over the production and distribution of money and credit for a nation or a group of nations. In modern economies, the central bank is usually responsible for the formulation of [monetary policy](https://www.investopedia.com/video/play/monetary-policy/) and the regulation of member banks.

Central banks are inherently non-market-based or even anticompetitive institutions. Although some are nationalized, many central banks are not government agencies, and so are often touted as being politically independent. However, even if a central bank is not legally owned by the government, its privileges are established and protected by law.

The critical feature of a central bank—distinguishing it from other banks—is its [legal monopoly](https://www.investopedia.com/terms/l/legalmonopoly.asp) status, which gives it the privilege to issue bank notes and cash. Private [commercial banks](https://www.investopedia.com/terms/c/commercialbank.asp) are only permitted to issue demand liabilities, such as [checking deposits](https://www.investopedia.com/terms/c/checkable-deposits.asp).

### How a Central Bank Works

Although their responsibilities range widely, depending on their country, central banks' duties (and the justification for their existence) usually fall into three areas.

First, central banks control and manipulate the national money supply: issuing currency and setting interest rates on loans and bonds. Typically, central banks raise interest rates to slow growth and avoid inflation; they lower them to spur growth, industrial activity, and consumer spending. In this way, they manage monetary policy to guide the country's economy and achieve economic goals, such as [full employment](https://www.investopedia.com/terms/f/fullemployment.asp).

Second, they regulate member banks through [capital](https://www.investopedia.com/terms/c/capital.asp) requirements, [reserve requirements](https://www.investopedia.com/terms/r/requiredreserves.asp) (which dictate how much banks can lend to customers, and how much cash they must keep on hand), and deposit guarantees, among other tools. They also provide loans and services for a nation’s banks and its government and manage [foreign exchange reserves](https://www.investopedia.com/terms/f/foreign-exchange-reserves.asp).

Finally, a central bank also acts as an emergency lender to distressed commercial banks and other institutions, and sometimes even a government. By purchasing government debt obligations, for example, the central bank provides a politically attractive alternative to taxation when a government needs to increase revenue.

**Functions of a Central Bank:**



**The different functions of a central bank (as discussed in Figure-4) are explained as follows:**

**(a) Traditional Functions:**

Refer to functions that are common to all central banks in the world.

**The traditional functions of the central bank include the following:**

**(i) Bank of issue:**

Possesses an exclusive right to issue notes (currency) in every country of the world. In the initial years of banking, every bank enjoyed the right of issuing notes. However, this led to a number of problems, such as notes were over-issued and the currency system became disorganized. Therefore, the governments of different countries authorized central banks to issue notes. The issue of notes by one bank has led to uniformity in note circulation and balance in money supply.

**(ii) Government’s banker, agent, and advisor:**

Implies that a central bank performs different functions for the government. As a banker, the central bank performs banking functions for the government as commercial banks performs for the public by accepting the government deposits and granting loans to the government. As an agent, the central bank manages the public debt, undertakes the payment of interest on this debt, and provides all other services related to the debt.

As an advisor, the central bank gives advice to the government regarding economic policy matters, money market, capital market, and government loans. Apart from this, the central bank formulates and implements fiscal and monetary policies to regulate the supply of money in the market and control inflation.

**(iii) Custodian of cash reserves of commercial banks:**

Implies that the central bank takes care of the cash reserves of commercial banks. Commercial banks are required to keep certain amount of public deposits as cash reserve, with the central bank, and other part is kept with commercial banks themselves.

The percentage of cash reserves is deeded by the central bank! A certain part of these reserves is kept with the central bank for the purpose of granting loans to commercial banks Therefore, the central bank is also called banker’s bank.

**(iv) Custodian of international currency:**

Implies that the central bank maintains a minimum reserve of international currency. The main aim of this reserve is to meet emergency requirements of foreign exchange and overcome adverse requirements of deficit in balance of payments.

 **(v) Bank of rediscount:**

Serve the cash requirements of individuals and businesses by rediscounting the bills of exchange through commercial banks. This is an indirect way of lending money to commercial banks by the central bank. Discounting a bill of exchange implies acquiring the bill by purchasing it for the sum less than its face value.

Rediscounting implies discounting a bill of exchange that was previously discounted. When owners of bill of exchange are in need of cash they approach the commercial bank to discount these bills. If commercial banks are themselves in need of cash they approach the central bank to rediscount the bills.

**(vi) Lender of last resort:**

Refer to the most crucial function of the central bank. The central bank also lends money to commercial banks. Instead of rediscounting of bills, the central bank provides loans against treasury bills, government securities, and bills of exchange.

**(vii) Bank of central clearance, settlement, and transfer:**

Implies that the central bank helps in settling mutual indebtness between commercial banks. Depositors of banks give checks and demand drafts drawn on other banks. In such a case, it is not possible for banks to approach each other for clearance, settlement, or transfer of deposits.

The central bank makes this process easy by setting a clearing house under it. The clearing house acts as an institution where mutual indebtness between banks is settled. The representatives of different banks meet in the clearing house to settle inter-bank payments. This helps the central bank to know the liquidity state of the commercial banks.

**(viii) Controller of Credit:**

Implies that the central bank has power to regulate the credit creation by commercial banks. The credit creation depends upon the amount of deposits, cash reserves, and rate of interest given by commercial banks. All these are directly or indirectly controlled by the central bank. For instance, the central bank can influence the deposits of commercial banks by performing open market operations and making changes in CRR to control various economic conditions.

**(b) Developmental Functions:**

Refer to the functions that are related to the promotion of banking system and economic development of the country. These are not compulsory functions of the central bank.

**These are discussed as follows:**

**(i) Developing specialized financial institutions:**

Refer to the primary functions of the central bank for the economic development of a country. The central bank establishes institutions that serve credit requirements of the agriculture sector and other rural businesses.

Some of these financial institutions include Industrial Development Bank of India (IDBI) and National Bank for Agriculture and Rural Development (NABARD). These are called specialized institutions as they serve the specific sectors of the economy.



**(ii) Influencing money market and capital market:**

Implies that central bank helps in controlling the financial markets Money market deals in short term credit and capital market deals in long term credit. The central bank maintains the country’s economic growth by controlling the activities of these markets.

**(iii) Collecting statistical data:**

Gathers and analyzes data related to banking, currency, and foreign exchange position of a country. The data is quite helpful for researchers, policymakers, and economists. For instance, the Reserve Bank of India publishes a magazine called Reserve Bank of India Bulletin, whose data is useful for formulating different policies and making macro-level decisions.

**INFLATION**

### What is Inflation?

Inflation is a quantitative measure of the rate at which the average price level of a basket of selected goods and services in an economy increases over a period of time. It is the constant rise in the general level of prices where a unit of currency buys less than it did in prior periods. Often expressed as a percentage, inflation indicates a decrease in the [purchasing power](https://www.investopedia.com/terms/p/purchasingpower.asp) of a nation’s currency.

## Causes of Inflation

So what exactly causes inflation in an economy? There is not a single, agreed-upon answer, but there are a variety of theories, all of which play some role in inflation:

### 1. The Money Supply

Inflation is primarily caused by an increase in the money supply that outpaces economic growth.

Ever since industrialized nations moved away from the gold standard during the past century, the value of money is determined by the amount of currency that is in circulation and the public’s perception of the value of that money. When the Federal Reserve decides to put more money into circulation at a rate higher than the economy’s growth rate, the value of money can fall because of the changing public perception of the value of the underlying currency. As a result, this devaluation will force prices to rise due to the fact that each unit of currency is now worth less.

One way of looking at the money supply effect on inflation is the same way collectors value items. The rarer a specific item is, the more valuable it must be. The same logic works for currency; the less currency there is in the money supply, the more valuable that currency will be. When a government decides to print new currency, they essentially water down the value of the money already in circulation. A more macroeconomic way of looking at the negative effects of an increased money supply is that there will be more dollars chasing the same amount of goods in an economy, which will inevitably lead to increased demand and therefore higher prices.

### 2. The National Debt

We all know that [high national debt in the U.S.](https://www.moneycrashers.com/how-fix-united-states-debt-problems/) is a bad thing, but did you know that it can actually drive inflation to higher levels over time? The reason for this is that as a country’s debt increases, the government has two options: they can either raise taxes or print more money to pay off the debt.

A rise in taxes will cause businesses to react by raising their prices to offset the increased corporate tax rate. Alternatively, should the government choose the latter option, printing more money will lead directly to an increase in the money supply, which will in turn lead to the devaluation of the currency and increased prices (as discussed above).

### 3. Demand-Pull Effect

The demand-pull effect states that as wages increase within an economic system (often the case in a growing economy with low unemployment), people will have more money to spend on consumer goods. This increase in liquidity and demand for consumer goods results in an increase in demand for products. As a result of the increased demand, companies will raise prices to the level the consumer will bear in order to balance supply and demand.

An example would be a huge increase in consumer demand for a product or service that the public determines to be cheap. For instance, when hourly wages increase, many people may determine to undertake [home improvement projects](https://www.moneycrashers.com/7-home-improvements-to-increase-its-value/). This increased demand for home improvement goods and services will result in price increases by house-painters, electricians, and other general contractors in order to offset the increased demand. This will in turn drive up prices across the board.

### 4. Cost-Push Effect

Another factor in driving up prices of consumer goods and services is explained by an economic theory known as the cost-push effect. Essentially, this theory states that when companies are faced with increased input costs like raw goods and materials or wages, they will preserve their profitability by passing this increased cost of production onto the consumer in the form of higher prices.

A simple example would be an increase in milk prices, which would undoubtedly drive up the price of a cappuccino at your local Starbucks since each cup of coffee is now more expensive for Starbucks to make.

### 5. Exchange Rates

Inflation can be made worse by our increasing exposure to foreign marketplaces. In America, we function on a basis of the value of the dollar. On a day-to-day basis, we as consumers may not care what the exchange rates between our foreign trade partners are, but in an increasingly global economy, exchange rates are one of the most important factors in determining our rate of inflation.

When the exchange rate suffers such that the U.S. currency has become less valuable relative to foreign currency, this makes foreign commodities and goods more expensive to American consumers while simultaneously making U.S. goods, services, and exports cheaper to consumers overseas.

This exchange rate differential between our economy and that of our trade partners can stimulate the sales and profitability of American corporations by increasing their profitability and competitiveness in overseas markets. But it also has the simultaneous effect of making imported goods (which make up the majority of consumer products in America), more expensive to consumers in the United StatesThe Good Aspects of Inflation

In a fact that is surprising to most people, economists generally argue that some inflation is a good thing. A healthy rate of inflation is considered to be approximately 2-3% per year. The goal is for inflation (which is measured by the Consumer Price Index, or CPI) to outpace the growth of the underlying economy (measured by Gross Domestic Product, or GDP) by a small amount per year.

A healthy rate of inflation is considered a positive because it results in increasing wages and corporate profitability and keeps capital flowing in a presumably growing economy. As long as things are moving in relative unison, inflation will not be detrimental.

Another way of looking at small amounts of inflation is that it encourages consumption. For example, if you wanted to buy a specific item, and knew that the price of it would rise by 2-3% in a year, you would be encouraged to buy it now. Thus, inflation can encourage consumption which can in turn further [stimulate the economy and create more jobs](https://www.moneycrashers.com/best-ways-to-stimulate-the-united-states-economy-and-create-jobs/).