

## **Economics for Engineers**

### **SYLLABUS (2019 onwards) Unit 3**

#### **Monetary economics**

What is Monetary economics is the branch of economics that studies the different competing theories of money: it provides a framework for analyzing money and considers its functions (such as medium of exchange, store of value and unit of account), and it considers how money, for example fiat currency, can gain acceptance purely because of its convenience as a public good. The discipline has historically prefigured, and remains integrally linked to macro economics. This branch also examines the effects of monetary systems, including regulation of money and associated financial institutions and international aspects.

#### **Monetary system**

A Monetary System is defined as a set of policies, frameworks, and institutions by which the government creates money in an economy. Such institutions include the mint, the central bank, treasury, and other financial institutions. There are three common types of monetary system's – commodity money, commodity-based money, and fiat money.

Currently, fiat money is the most common type of monetary system in the world. For example, the US Dollar is fiat money.

#### **Types of monetary system or the components of monetary system**

##### **1. Commodity Money**

This is made up of precious metals or other commodities that have intrinsic value. In order words, the monetary system uses the commodity physically in terms of currency. This form of money retains its value even if it's melted down. For example, gold and silver coins have been commonly used throughout history as a form of money.

## **2. Commodity-based Money**

This draws its value from a commodity but doesn't involve handling the commodity regularly. The notes don't have tangible value but can be exchanged for the commodity it is backed by. For example, the US Dollar used to draw its value on gold. This was known as the Gold Standard.

## **3. Fiat Money**

In this system the currency, which by government decree is legal tender, i.e., that the government guarantees the value of the currency.

Today, most monetary systems are fiat money because people use notes or bank balances to make purchases. Fiat money is made up of paper currency or a base metal coin. However, today, most of fiat money is in the form of bank balances and records of credit or debit card purchases.

## **Use of money**

### **1. Medium**

Money is used as a means of payment or a medium of exchange and therefore eliminates the coincidence of needs problem that is created by a barter system. The coincidence of needs requires that two parties want what the other person is willing to trade, and thus makes it difficult to trade.

### **2. Measurement**

It is also a standard unit of measurement that can be used to price things and to compare value. For example, a book costs \$150, a meal costs \$5, and a long distance call costs \$0.10/min. To compare their value, we can say one book = 30 meals = 1500 minutes on a long distance call.

### **3. Value**

Money can be used to store value, and thus it becomes an asset itself. However, money may not be a good store of value since it loses value over time due to inflation.

## **Financial System**

A '**Financial system**' is a **system** that allows the exchange of funds between lenders, investors, and borrowers. **Financial systems** operate at national and global levels.

### **Components of financial systems**

A **financial system** is a network of financial institutions, financial markets, financial instruments and financial services to facilitate the transfer of funds. The system consists of savers, intermediaries, instruments and the ultimate user of funds. The level of economic growth largely depends upon and is facilitated by the state of financial system prevailing in the economy. Efficient financial system and sustainable economic growth are corollary. The financial system mobilizes the savings and channelizes them into the productive activity and thus influences the pace of economic development. Economic growth is hampered for want of effective financial system. Broadly speaking, financial system deals with three inter-related and interdependent variables, i.e., money, credit and finance.

The financial system provides channels to transfer funds from individual and groups who have saved money to individuals and group who want to borrow money. Saver (refer to the lender) are suppliers of funds to borrowers in return with promises of repayment of even more funds in the future. Borrowers are demanders of funds for consumer durables, house, or business plant and equipment, promising to repay borrower funds based on their expectation of having higher incomes in the future. These promises are financial liabilities for the borrower-that is, both a source of funds and a claim against the borrower's future income.

### **Main Functions of Financial System**

The functions of financial system can be enumerated as follows:

- Financial system works as an effective conduit for optimum allocation of financial resources in an economy.
- It helps in establishing a link between the savers and the investors.
- Financial system allows 'asset-liability transformation'. Banks create claims (liabilities) against themselves when they accept deposits from customers but also create assets when they provide loans to clients.
- Economic resources (i.e., funds) are transferred from one party to another through financial system.
- The financial system ensures the efficient functioning of the payment mechanism in an economy. All transactions between the buyers and sellers of goods and services are effected smoothly because of financial system.

- Financial system helps in risk transformation by diversification, as in case of mutual funds.
- Financial system enhances liquidity of financial claims.
- Financial system helps price discovery of financial assets resulting from the interaction of buyers and sellers. For example, the prices of securities are determined by demand and supply forces in the capital market.
- Financial system helps reducing the cost of transactions.

### **Services Provided by the Financial System**

1. **Risk Sharing:** Financial system provides risk sharing by allowing savers to hold many assets. It also means financial system enables individuals to transfer risk. Financial markets can create instruments to transfer risk from savers to borrowers who do not like uncertainty in returns or payments to savers or investors who are willing to bear risk. The ability of the financial system to provide risk sharing makes savers more willing to buy borrowers' IOUs. This willingness, in turn, increases borrowers' ability to raise funds in the financial system.
2. **Liquidity:** The second service that financial system provides for savers and borrowers is liquidity, which is the ease with which an asset can be exchanged for money to purchase other assets or exchanged for goods and services. Most of the savers view the liquidity as a benefit. If an individual needs their assets for their own consumption and investment, they can just exchange it. Liquid assets allow an individual or firm to respond quickly to new opportunities or unexpected events. Bonds, stocks, or checking accounts are created by financial assets, which have more liquidity than cars, machinery and real estate.
3. **Information:** The third service of financial system is collection and communication of information or we can say that it is the facts about borrowers and expectations about returns on financial assets. The first informational role the financial system plays is to gather information. That includes finding out about prospective borrowers and what they will do with borrowed funds. Another problem that exists in most transactions is asymmetric information. This means that borrowers possess information about their opportunities or activities that they don't disclose to lenders or creditors and can take advantage of this information. The second informational role that financial system plays is communication of information. Financial markets do that job by incorporating information into the prices of stocks, bonds, and other financial assets. Savers and borrowers receive the benefits of information from the financial system by looking at asset returns. As long as financial market participants are informed, the information works its way into asset returns and prices.

## **What Are Capital Markets**

Capital markets are venues where savings and investments are channeled between the suppliers who have capital and those who are in need of capital. The entities who have capital include retail and institutional investors while those who seek capital are businesses, governments, and people. Capital markets are composed of primary and secondary markets. The most common capital markets are the stock market and the bond market. Capital markets seek to improve transactional efficiencies. These markets bring those who hold capital and those seeking capital together and provide a place where entities can exchange securities.

## **Types of capital market**

### **Primary Versus Secondary Capital Markets**

Capital markets are composed of primary and secondary markets. The majority of modern primary and secondary markets are computer-based electronic platforms.

Primary markets are open to specific investors who buy securities directly from the issuing company. These securities are considered primary offerings or initial public offerings (IPOs). When a company goes public, it sells its stocks and bonds to large-scale and institutional investors such as hedge funds and mutual funds.

The secondary market, on the other hand, includes venues overseen by a regulatory body like the Securities and Exchange Commission (SEC) where existing or already-issued securities are traded between investors. Issuing companies do not have a part in the secondary market. The New York Stock Exchange (NYSE) and Nasdaq are examples of the secondary market.

## **Debt market**

The **bond market** (also **debt market** or **credit market**) is a financial market where participants can issue new debt, known as the primary market, or buy and sell debt securities, known as the secondary market. This is usually in the form of bonds, but it may include notes, bills, and so on.

Its primary goal is to provide long-term funding for public and private expenditures. The bond market has largely been dominated by the country.

## Types of debt market

The Securities Industry and Financial Markets Association (SIFMA) classifies the broader bond market into five specific bond markets.

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1. **Corporate**
  2. **Government and agency**
  3. **Municipal**
  4. **Mortgage-backed, asset-backed, and collateralized debt obligations**
  5. **Funding**
  6. **Central bank**
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## Central Bank

The **Reserve Bank of India (RBI)** is India's central banking institution, which controls the issuance and supply of the Indian rupee. Until the Monetary Policy Committee was established in 2016,<sup>[6]</sup> it also controlled monetary policy in India.<sup>[7]</sup> It commenced its operations on 1 April 1935 in accordance with the *Reserve Bank of India Act, 1934*.<sup>[8]</sup> The original share capital was divided into shares of 100 each fully paid, which were initially owned entirely by private shareholders.<sup>[9]</sup> Following India's independence on 15 August 1947, the RBI was nationalised on 1 January 1949.

## Functions of RBI

1. Financial supervision
2. Regulator and supervisor of the financial system
3. Regulator and supervisor of the payment and settlement systems
4. Banker and debt manager to government
5. Managing foreign exchange
6. Issue Of Currency
7. Banker's bank

8. Regulator of the Banking System
9. Detection of fake currency
10. Developmental role
11. Related functions
12. Custodian to foreign exchange

### **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 (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 paid by the bank on money they borrow is less than the rate charged on money they lend.

### **Factions of Commercial bank**

#### **1. Accepting deposits:**

The most significant and traditional function of commercial bank is accepting deposits from the public. The deposits may be of three types: Saving deposits, Current deposits and fixed deposits. In case of current account, people can withdraw deposits in part or in full at any time he likes without notice.

Usually no interest is paid on them, because the bank cannot utilise these short-term deposits. Savings deposits are payable on demand and money can be withdrawn by cheques. But there are certain restrictions imposed on the depositors of this account. Deposits in this account earn interest at nominal rates. Fixed deposits are made for a fixed period of time. A higher rate of interests is paid on the fixed deposits.

## **2. Providing loans:**

The second important function of the commercial bank is to provide loans against suitable mortgages to the public to fulfill their needs of money. Loans can be granted in the form of cash credit, demand loans, short-term loan, overdraft, discounting of bills etc. Under cash credit system, borrower is sanctioned a credit limit up to which he can borrow from the bank. The interest payable by the borrower is calculated on the amount of credit limit actually drawn. Demand loans granted by a bank are those loans which can be recalled on demand by the bank any time.

Here, the interest is payable on the entire sum of demand loans granted. Short-term loans (like car loans, housing loans etc.) are given as personal loans against some security. The interest is payable on the entire sum of loan granted. In case of overdraft facility, an account holder is allowed to withdraw a sum of money in excess of the amount deposited with the bank.

Here, the borrower who has received this facility, has to pay interest on the amount overdrawn. Another important form of bank lending is through discounting or purchasing the bills of exchange. A bill of exchange is drawn by a creditor on the debtor specifying the amount of debt and also the date when it becomes payable. Such bills of exchange are normally issued for a period of 90 months.

## **3. Credit Creation:**

This is a unique function performed by the commercial banks. A bank has sometimes been called a factory for the manufacture of credit. In the process of acceptance of deposits and granting of loans, commercial banks are able to create credit.

## **4. Transfer of funds:**

Commercial banks are able to transfer funds of a customer to other customer's account through the cheques, draft, mail transfers, telegraphic transfers etc.

## **5. Agency functions:**

In modern time, commercial banks also act as an agent of the customer. However, banks charge fee or commission for these functions.

### **Agency functions include:**

- (a) Collection of cheques, bills and drafts,
- (b) Collection of interest, dividend etc.
- (c) Payment of interest, installments of loans, insurance premium etc.



(d) Purchase and sale of securities

(e) Transfer of funds through demand drafts, mail transfer etc.

#### **6. Other functions:**

**Apart from the above important and most popular functions, commercial banks also perform the following other functions:**

(a) Payment of credit letters and travellers cheques, gift cheques, bank draft etc.

(b) Dealing in foreign exchange.

(c) Locker services.

(d) Provision of tax assistance and investment advice etc.

From the above analysis, it is clear that in a modern economy the commercial banks play an important role in various economic activities of the country.

### **Price Indices**

#### **What are Price Indices?**

A price index (PI) is a measure of how prices change over a period of time, or in other words it is a way to measure inflation. There are multiple methods on how to calculate the inflation (or deflation), in this guide we will take a look at a couple of methods on how to do so. Inflation is one of the core metrics monitored by the FED in order to set interest rates. Changes in the levels of prices are measured using a scale called a price index. This is the most useful device for measuring change in the price level.

In most countries price indexes are used to measure inflation, each focusing on the prices of a collection of goods and services important to a particular segment of the economy.

#### **What is a Wholesale Price Index? WPI**

A wholesale price index (WPI) is an index that measures and tracks the changes in the price of goods in the stages before the retail level – that is, goods that are sold in bulk and traded between entities or businesses instead of consumers. Usually expressed as a ratio or percentage, the WPI shows the included goods' average price change and is often seen as one indicator of a country's level of inflation.

Although many countries and organizations use WPIs in this way, many other countries, including the United States, use the producer price index (PPI) instead – a similar but more accurately named index.

### **What Is the Consumer Price Index – CPI?**

The Consumer Price Index (CPI) is a measure that examines the weighted average of prices of a basket of consumer goods and services, such as transportation, food, and medical care. It is calculated by taking price changes for each item in the predetermined basket of goods and averaging them. Changes in the CPI are used to assess price changes associated with the cost of living; the CPI is one of the most frequently used statistics for identifying periods of inflation or deflation.

### **Calculating CPI**

The BLS records about 80,000 items each month by calling or visiting retail stores, service establishments (such as cable providers, airlines, car and truck rental agencies), rental units and doctors' offices across the country in order to get the best outlook for the CPI.

The formula used to calculate the Consumer Price Index for a single item is as follows:

### **Computing the Index:**

Next, to actually calculate the Consumer Price Index we need to define a base year. The base year serves as the benchmark against which all other years are compared. It can be designated freely, although for the sake of comparability it is common practice to keep the same base year for a few years before moving on to a new one.

The index is then calculated by dividing the price of the basket of goods and services in a given year (t) by the price of the same basket in the base year (b). This ratio is then multiplied by 100, which results in the Consumer Price Index.

In the base year, CPI always adds up to 100. This becomes obvious if we look at our example. To calculate CPI in 2016, we have to divide USD 14 by USD 14 and multiply the result by 100 (*i.e.*  $[14/14] \times 100$ ). Of course, the result is 100. Using the same formula, the CPI in 2017 is 114,3, *i.e.*  $(16/14) \times 100 = 114,3$ . Thus we can say that the Consumer Price Index has increased from 100 in 2016 to 114,3 in 2017.

### **What is Direct Tax?**

It is a tax levied directly on a taxpayer who pays it to the Government and cannot pass it on to someone else.

### **2. What are the direct taxes imposed in India?**

Some of the important direct taxes imposed in India are mentioned below:

- **Income Tax-** It is imposed on an individual who falls under the different tax brackets based on their earning or revenue and they have to file an income tax return every year after which they will either need to pay the tax or be eligible for a tax refund.
- **Estate Tax-** Also known as Inheritance tax, it is raised on an estate or the total value of money and property that an individual has left behind after their death.
- **Wealth Tax-** Wealth tax is imposed on the value of the property that a person possesses.

However, both Estate and Wealth taxes are now abolished.

### **3. What are the advantages of direct taxes?**

Direct taxes do have a certain advantage for a country's social and economic growth. To name a few,

- **It curbs inflation:** The Government often increases the tax rate when there is a monetary inflation which in turn reduces the demand for goods and services and as a result of descending demand, the inflation is bound to condense.
- **Social and economic balance:** Based on every individual's earnings and overall economic situation, the Government has well-defined tax slabs and exemptions in place so that the income inequalities can be balanced out.

#### 4. What is the most common disadvantage of direct taxes?

Direct taxes come with a handful of disadvantages. But, the very time-consuming procedures of filing tax returns is a taxing task itself.

#### 5. What is Indirect Tax?

It is a tax levied by the Government on goods and services and not on the income, profit or revenue of an individual and it can be shifted from one taxpayer to another.

Earlier, an indirect tax meant paying more than the actual price of a product bought or a service acquired. And there was a myriad of indirect taxes imposed on taxpayers.

Let's discuss a few indirect taxes that were earlier imposed in India:

- **Customs Duty**- It is an Import duty levied on goods coming from outside the country, ultimately paid for by consumers and retailers in India.
- **Central Excise Duty**- This tax was payable by the manufacturers who would then shift the tax burden to retailers and wholesalers.
- **Service Tax**- It was imposed on the gross or aggregate amount charged by the service provider on the recipient.
- **Sales Tax**- This tax was paid by the retailer, who would then shifts the tax burden to customers by charging sales tax on goods and service.
- **Value Added Tax (VAT)**- It was collected on the value of goods or services that were added at each stage of their manufacture or distribution and then finally passed on to the customer.

#### 6. GST as Indirect Tax

With the implementation of GST, we have already witnessed a number of positive changes in the fiscal domain of India. The various taxes that were mandatory earlier are now obsolete, thanks to this new reformed indirect tax. Not just that, GST is making sure the slogan "One Nation, One Tax, One Market" becomes the reality of our country and not just a dream.

That said, with the dawning of the 'Goods & Services Tax (GST)', the biggest relief so far is clearly the elimination of the 'cascading effect of tax' or the 'tax on tax' quandary.

Cascading effect of tax is a situation wherein the end-consumer of any goods or service has to bear the burden of the tax to be paid on the previously calculated tax and as a result would suffer an increased or inflated price.

Under the GST regime, however, the customer is exempted from the tax they would otherwise pay as a result of the cascading effect.

### **Meaning and Need for Budget:**

A budget is a blueprint of plan of action to be followed during a specified period of time for the purpose of attaining a given objective.

According to CIMA Terminology, budget is **“a plan quantified in monetary terms prepared and approved prior to a defined period of time, usually showing planned income to be generated and/or expenditure to be incurred during that period and the capital to be employed to attain a given objective”**.

#### **Features:**

**An analysis of the above definition reveals the following essential features of a budget:**

- (i) It is prepared beforehand based on a future plan of actions;
- (ii) It is related to a definite future period and is based on the objectives to be attained;
- (iii) It is expressed in financial terms;
- (iv) It shows planned income to be generated;
- (v) It shows probable expenditure to be incurred;
- (vi) It indicates the capital to be employed during the period;

Thus, a budget sets the firm's goals in clear formal terms to avoid confusion and provides a detailed plan of action for achieving the goals. It is a means of communication by which the top management uses the budget as a vehicle to communicate their ideas to the subordinates who are to give them the practical shape.

It coordinates the various activities (such as sales, production, purchases etc.) of the organisation in such a way that the use of resources is maximised. It also provides a means of measuring and controlling the performance of the organisation, and supplies

information to the management, on basis of which necessary corrective actions may be taken.

### **Types:**

#### **I. Functional Budgets:**

A functional budget is a budget which relates to the individual functions of the organisation like sales, production, purchase, capital expenditure etc. For each function there is usually a separate budget which is controlled by the functional manager.

**Normally, the various functional budgets which are drawn up in an organisation are:**

##### **1. Sales Budget:**

This budget is a forecast of quantities and values of sales to be achieved in a budget period. Generally, sales budget is the starting point for the preparation of the functional budgets. This budget can be prepared on the basis of products, sales areas or territories, salesmen or agent wise, types of customers etc.

**A sales budget may be prepared with the help of any one or more of the following methods:**

##### **(i) Analysis of Past Sales:**

The past sales are analysed to find out as to what changes are likely to happen in future. However, in addition to past sales, the sales manager must consider other factors affecting future sales e.g., seasonal fluctuations, growth of market, trade cycle etc. Statistical method may be used for projecting sales.

##### **(ii) Market Analysis:**

The purpose of market analysis is to ascertain the potential market demand for a product, product design required by customers, fashion, trends, purchasing power of people, activities of competitors and the prices that consumers are likely to pay.

##### **(iii) Reports of Salesmen:**

Salesmen—who are men in close touch with the market—may be asked to submit a report to the sales manager as to expected sales, customers' tastes and preferences, possible competition etc.

##### **(iv) General Trade Prospects:**

The probability of the sales going up or down depends on the general trade prospects. A change in political or economic conditions is bound to influence the volume of sales. In this connection valuable information may be known from financial papers and

magazines, national and international economic statistics, international relations, political influences, government policies etc.

**(v) Business Conditions:**

Changes in the policies and methods of business should also be considered. For example, introduction of new product or new design, additional spending on advertising, improved deliveries, after-sales services etc. have some market effect on a sales forecast which should be considered with reasonable degree of accuracy.

**(vi) Special Conditions:**

Sometimes, certain special conditions outside the business may influence its sales. For example, development of particular area may lead to demand for cars, scooters, cycles or electrification of a village may have an effect on sale of radio, television etc.

**2. Selling and Distribution Cost Budget:**

This budget is a forecast of the expenses connected with the selling and distributing the product of a concern during the budget period. This budget is closely connected with the sales budget. While preparing this budget, a classification is made according to the variability of cost. This budget is prepared by the sales managers.

**3. Production Budget:**

After preparing the sales budget, the production budget is prepared. This budget is prepared in physical units. It shows the number of units of each product that must be produced to satisfy the sales forecasts and to achieve the desired level of inventory.

**Thus, production budget is the sales budget adjusted for inventory changes as:**

Units to be produced = Budgeted Sales + Desired closing inventory - Opening inventory.

While preparing a production budget, the factors like sales forecast, budgeted stock requirements, plant capacity, policy of management regarding purchase of components etc. are taken into account. It is very necessary to coordinate production with sales budget to avoid imbalance in production.

**4. Production Cost Budget:**

Production cost budget shows in detail the estimated cost of carrying out the production plan and programmes set out in the production budget. This budget summarizes material cost, labour cost and factory overhead for production. Factory overheads are usually further subdivided into fixed, variable and semi-variable. Cost are analysed by departments and/or products.

### **5. Material Budget:**

A Material Budget shows the estimated quantity as well as the cost of each type of direct material and component required for producing goods as per production budget. There are two stages of preparing material budget. At the first stage, the quantities of different types of direct material are estimated.

Afterwards the price of each kind of direct material and component is used to obtain the cost of different types of materials and components consumed. It is necessary to know unit material utilisation rate for preparing material budget. The unit material utilisation rate is multiplied by the number of units to be produced in order to determine the total units of material required for estimated production.

### **6. Purchase Budget:**

Purchase Budget gives the details of the purchases which must be made during the budget period. It includes all items of purchase, such as, raw materials, indirect material and other equipment.

### **7. Labour Budget:**

This budget contains the estimates relating to number of employees and types of employees required for the budgeted output. Once the classification of labour into its different grades has been carried out, the labour requirements for each type of product can be estimated.

The standard labour hours required for each type of product are then set with the help of time and motion study. From the total man-hours required for production, labour requirements are determined and, from the estimated rate per hour, labour cost per unit is determined.

### **8. Factory Overhead Budget:**

Factory overhead budget gives an estimate of all fixed, variable and semi-variable items of factory overhead to be incurred during the budget period to achieve the production budget.

### **9. Plant Utilisation Budget:**

This budget indicates plant and machinery facility required to meet the budgeted production during the budget period. Plant capacities/facilities will be expressed in the budget in terms of convenient units such as working hours or weight or the number of products etc. While preparing this budget allowance must be made for the time lost in repairs and maintenance, setting-up time etc.



**10. Administration Cost Budget:**

This budget represents the estimated cost of formulating policy, directing the organization and controlling the business operations. Since most of the administration cost is fixed in nature, the preparation of these budgets does not present much difficulty. The main budget is divided into separate budget covering separate administrative activities such as legal, finance, accounting, management information services, internal audit and taxation.

**11. Research and Development Cost Budget:**

This budget provides estimates of the expenditure to be incurred on research and development during the budget period. The expenditure of research depends on the nature of the concern's product, economic condition, extent of competition, technological development in related industry, and the policy of the management. Generally, a total allowed expenditure provides a base for preparation of this budget.

**12. Capital Expenditure Budget:**

This budget gives an estimate of the amount of capital that may be needed for acquiring fixed assets required for achieving the production targets as laid down in the production budget. This budget is based on the requisitions for capital expenditure from various departments and after considering their profitability, capital expenditure is sanctioned and incorporated in the budget.

**13. Cash Budget:**

A cash budget is a statement of estimated sources and uses of-cash. It compares the estimated cash receipts and cash disbursements of the concern during the budget period and shows the resultant periodical cash position as the budget period develops. This budget is prepared after all the functional budgets are prepared.

Under this method, all cash receipts and payments which are expected during the

***II. Master Budget:***

Master budget is a summary of all the functional budgets and shows the overall budget plan.

**According to CIMA terminology:**

"A master budget is the summary budget incorporating its component as functional budgets and which is finally approved, adopted and employed." This budget commonly summarizes functional budgets to produce a budgeted Profit and Loss Account and a budgeted Balance Sheet at the end of the budget period.

### ***III. Fixed Budget (Static Budget):***

A fixed budget is defined as a budget which is designed to remain unchanged irrespective of the volume of output or turnover attained. The budget remains fixed over a given period and does not change with the change in the volume of production or level of activity attained.

Thus, it does not provide for any change in expenditure arising out of changes in the level of activity or capacity. A fixed budget will, therefore, be useful only when the actual level of activity corresponds to the budgeted level of activity. But if the level of output actually achieved differs considerably from that budgeted, large variances will arise and the budgetary control becomes ineffective and meaningless.

### ***IV. Flexible Budget:***

A flexible budget is a budget which is designed to change in accordance with the level of activity actually attained. "Flexible budget is a budget which, by recognising the difference in behavior between fixed and variable costs in relation to fluctuations in output, turnover, or other variable factors such as number of employees, is designed to change appropriately with such fluctuations."

Thus, a flexible budget distinguishes between fixed and variable costs and adopts itself to any level of activity. This budget also involves the construction of a series of fixed budgets for different levels of activity. The budget allowance given under this system serves as a standard of what costs should be at each level of activity.

Hence budgeted cost at actual activity is compared with actual cost at actual activity i.e., two things to a like base. It helps both in profit planning and controlling cost.