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FAST TRACK
ECONOMICS

INDEX

Chapter 1

INTRODUCTION OF BUSINESS ECONOMICS

1. The origin of economics can be traced to Adam Smith book An Inquiry into the Nature and Causes of Wealth of Nations published in the year 1776. *Adam Smith is the father of Economics*. At its birth it was called 'Political Economy'.

2. Economics has been defined in four different ways:
   - *Wealth Definition: Adam Smith,* defined economics as a science of wealth-which means production and consumption of wealth.
   - *Welfare Definition: Marshall* defined the welfare aspect of economics as attainment and use of material things. He defined economics in its normative aspect.
   - *Scarcity Definition: Robbins* emphasizes that economics is a study of human behaviour, where there is a relationship between ends and scarce means and that the scarce means have alternative uses. *He said economics is neutral between ends. He defined economics in its positive aspect.*
   - *Growth Definition: Samuelson's* definition of economics is most comprehensive, relevant and accepted. The definition includes both the aspects of economics, i.e., distribution of limited resources and problem of economic development.

3. *Economics as a Science:* Economics is a science where various facts are systematically collected, classified and analyzed. Economics is a social science whose subject matter is man who cannot be controlled and predicted. Physics, Chemistry and Biology are pure sciences where experiments can be conducted in a laboratory under controlled conditions.

4. *Economics as an Art:* Economics is an art as it has several branches which give practical direction to some economic problems of the society.

5. *Economics is a science having both positive and normative sides.* The role of an economist is not only to explain and explore but also to admire and condemn.

This role of an economist is essential for healthy and rapid growth of an economy. Positive economics deals with what is, and normative economics deals with what ought to be. Positive economics deals with facts and normative economics deals with ethics.

6. *Microeconomics* deals with behavior of individual decision making units such as consumers, resource owners, etc. It is also called Price Theory. Macroeconomics deals with aggregates such as national income, aggregate consumption, etc. It is also called Theory of Income and Employment. Both micro and macro economics are complementary and should be fully utilized for proper understanding of an economy.

7. There are two methods of constructing an economic theory (a) Deductive method (b) Inductive method.
   (a) In the deductive method, the process of reasoning goes from general assumptions to particular predictions. It was adopted by classical economists and is simple. The method is more suitable when facts and data are not available. This method is called abstract or priori method.
   (b) In the inductive method, the process of reasoning goes from particular facts to general theory. It was popular among modern economists and is more precise, realistic and scientific. The method is more suitable when facts and data are available.

   Deductive and inductive methods are not alternative of each other. Both the methods are needed for constructing an economic theory.

8. *Business Economics* integrates economic theory with business practice and relies on economic analysis in the formulation of business policies.

9. *While Business Economics* is basically concerned with Micro Economics, Macro economics analysis has got an important role to play. Macroeconomics analysis the environment in which the business has to function.

10. *Business Economics* is a normative science which is interdisciplinary and pragmatic in approach.

11. *There are two categories of business issues* to which economic theories can be directly applied, namely: Microeconomics applied to operational or internal issues and Macroeconomics applied to environmental or external issues.

12. *Business Economics* makes use of microeconomic analysis such as, demand analysis and forecasting, production and cost Analysis inventory management, market structure and pricing policies, resource allocation, theory of capital and investment decisions, profit analysis and risk and uncertainty analysis.

13. *Business Economics* also considers Macroeconomics related to economic systems, business cycles, national income, employment, prices, saving and investment, Government's economic policies and working of financial sector and capital market.

14. The *central problem* is the problem of choice or the problem of economizing. The main causes of central problems are:
    ➢ *unlimited human wants*
    ➢ *limited economic resources*
    ➢ *alternative uses of resources*

    The central problems are:-
    1. What to produce and how much to produce.
    2. How to produce
   *3. For whom to produce*
    4. Economic growth

15. All point on *Production Possibility curve (PPC)* solves the first two problems and points on a higher PPC solves the problem of economic growth. PPC cannot solve the problem of 'For whom to produce.
    ➢ PPC shows various alternative combinations of goods and services that an economy can produce when the resources are fully and efficiently employed.

    The slope of PPC measures opportunity cost of the commodity in terms of alternative opportunity given up. *Since the opportunity cost is increasing therefore PPC is concave to the origin and scarcity of resources gives downward slope to PPC.* [Opportunity cost is cost of alternative opportunity given up.]

16. There are three forms of economic organization:

    (a)   Capitalistic economy or free economy

    (b)   Socialistitc economy or Controlled economy

    (c)   Mixed economy.

➢ Capitalism is the system that advocates price mechanism to solve the central economic problems. In a capitalistic economy, prices are determined by the market forces of demand and supply. The only aim is profit maximization and the consumers are free to consume whatever they like. It has faith in liesez fair policy i.e least interference by the government.

➢ Socialism is the system where government or public sector owns the factors of production (land, labor, capital and enterprise) and the central planning authority solves central economic problems. The aim is to maximize welfare of the society and the consumers can consume only those goods which are produced by the government.

➢ In a mixed economy, public and private sectors exist side by side. Both price mechanism and central planning authority solves central economic problems. India is a mixed economy.

Chapter 2
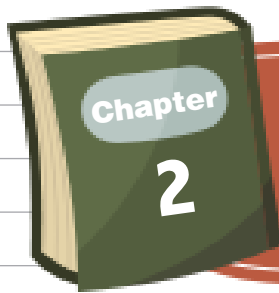
THEORY OF DEMAND AND SUPPLY

Theory of Demand

1. *Meaning of Demand*: Demand for a commodity refers to the quantity of a commodity which a consumer is willing and able to purchase at a certain price during any particular period of time.

2. In economics, *demand means* effective desire which means there should be desire to own the good, sufficient money to buy it and willingness to spend the money.

3. The *determinants of demand* are (i) price of the good (ii) price of related goods (iii) income of the consumers (iv) tastes and preferences of the consumers and (v) other factors such as size of population, composition of population, distribution of income etc.

4. The *law of demand states that* there is an inverse relationship between price of a commodity and its quantity demanded, ceteris paribus. The assumptions of the law of demand are that Pr, Y, T and D are constant.
    - The demand schedule is a tabular or numerical representation of law of demand. It is of two types-:
    - *Individual demand schedule* shows the quantity demanded on the part of a single consumer at various prices per unit of time.
    - *Market demand schedule* shows the aggregate of the quantity demanded by all the consumers at various prices per unit of time.
    - *Demand curve is* a graphical or geometric representation of law of demand. It is of two types-:
    - *Individual demand curve is* graphical representation of quantity demanded by a single consumer at different prices.
    - *Market demand curve* is constructed by horizontally or laterally summing all the individual demand curves at each and every price.

5. *The demand curve slopes downward* because of *(i)* **law of diminishing marginal utility** *(ii)* **income effect,** *(iii)* **substitution effect,** *(iv)* **new consumers creating demand and** *(v)* **several uses of a commodity.**

6. *Exception to the law of demand* are found in the following cases *(i)* **Giffen goods,** *(ii* **Conspicuous goods or goods of status,** *(iii)* **Expectation of a price rise in future,** *(iv)* **Demonstration effect,** *(v)* **conspicuous necessities,** *(vi)* **impulsive purchase and** *(vii)* **Ignorance effect and** *(viii)* **Emergency.**

7. *Movement along a demand curve* **(change in quantity demanded)** occurs due to change in the price of the good itself other factors remaining constant.

8. *Shift of the demand curve* **(change in demand)** occurs due to change in (i) price of other good (ii) income of the consumers (iii) tastes of the consumers etc. price of the commodity remains constant.
    ➢ Movement on demand curve can be *expansion or contraction* of demand whereas change in demand can be *increase or decrease* in demand.

9. *Price Elasticity of Demand (Ep)* measures percentage change in quantity demanded of a good due a percentage change in its price Therefore, Ep can be calculated as:

    $$Ep = \frac{\text{Percentage change in quatity demanded}}{\text{Percentage change in price}}$$

    $$\text{or, } = -\frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

10. The *major determinants of price elasticity* of demand are:
    (i)   Nature of the commodity
    (ii)   Availability of substitutes
    (iii) Several uses of the commodity
    (iv)   Share of a commodity in consumers budget
    (v)   Time – period
    (vi)   Habit of the consumer.
    (vii) Tied demand.
    (viii) Price range.

11. There are *five degrees of e_p*.

(i) <u>Perfectly inelastic demand</u> (e_p = 0) demand curve will be vertical line parallel to y-axis.

(ii) <u>Inelastic demand</u> (**0 < e_p < 1**) demand curve will be relatively stipper.

(iii) <u>Unitary elastic demand</u> (e_p = 1) demand curve will be like rectangular hyperbola.

(iv) <u>Elastic demand</u> (**1 < e_p < ∞**) demand curve will be relatively flatter.

(v) <u>Perfectly elastic demand</u> (**Ep = ∞**)$_s$. demand curve will be a horizontal line parallel to x-axis.

Check List	
➤ Inelastic demand	➤ Elastic Demand
➤ Elastic Demand	➤ Luxurious goods
➤ Substitute not available	➤ Substitute available
➤ Single or limited no.of use of commodity	➤ Multiple uses of the commodity
➤ Low share in consumer's budget	➤ High share in consumer's budget
➤ Short period	➤ Long period
➤ Habitual consumer	➤ Non–habitual consumer
➤ Tied demand	➤ Independent demand
➤ Low & high price range	➤ Medium price range

12. *Measurement of Price Elasticity of Demand*:-

i. Percentage or proportionate method

ii. Geometric (or point) method.

iii. Total outlay or expenditure method

iv. Arc or mid – value method.

(i) In the **percentage method**, E_p is calculated by the formula:

$$E_p = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

(ii) In the **geometric method**, e_p at a point on a linear (straight) demand curve is calculated as:

$$e_p = \frac{Lower\ segment\ of\ the\ demand\ curve}{Upper\ segment\ of\ demand\ curve}$$

(iii) In the **total outlay method**, the ep is measured on the basis of change in total expenditure (TE) or total revenue as a result of change in price of commodity. If –

(a) price rises and TE/TR also rises and vice-versa then e_p < 1

(b) price rises or falls TE/TR remains constant then e_p = 1

(c) price rises and TE/TR falls and vice-versa then e_p > 1

(iv) For ~~arc elasticity,~~ the formula is $E_p = \dfrac{Q_1 - Q_2}{Q_1 + Q_2} \times \dfrac{P_1 + P_2}{P_1 - P_2}$

13. *Income Elasticity of Demand* measures % ag changes in demand due to % ag change in income of the consumer.

Therefore, $e_y = \dfrac{\Delta Q}{\Delta Y} \times \dfrac{Y}{Q}$

(a) If value of e_y is between 0 to 1 then good is normal or essential.

(b) If $e_y > 1$ then good is luxury and

(c) If e_y is negative i.e. less than 0 then good is inferior.

14. *Cross-Elasticity of Demand(e_c)*: It measures% ag changes in the quantity demanded of good *x* due to % ag change in price of good y. The formula for calculating e_c is:

$$e_c = \dfrac{\Delta Qx}{\Delta Py} \times \dfrac{\Delta Py}{\Delta Qx}$$

➢ When $e_c = +\infty$, goods are perfect substitutes

➢ When $e_c = +ve$ goods are substitutes

➢ When $e_c = 0$, goods are totally unrelated

➢ When $e_c = -ve$, goods are complements.

15. *Advertisement elasticity of sales* or promotional elasticity of demand measures the responsiveness of a good's demand to changes in the firm's spending on advertising. Value of advertisement elasticity of demand is positive and various between 0 and 00.

16. *Demand Distinctions*
   ➢ *Producer's goods and Consumer's goods*
   ➢ *Durable goods and Non-durable goods*
   ➢ *Derived demand and Autonomous demand*
   ➢ *Industry demand and Company demand*
   ➢ *Short-run demand and Long-run demand*

17. *Forecasting of demand* is the art and science of predicting the probable demand for a product or a service at some future date on the basis of certain past behaviour patterns of some related events and the prevailing trends in the present.

18. *Methods of Demand Forecasting*
   ➢ Survey of Buyer's Intentions
   ➢ Collective Opinion Method
   ➢ Expert Opinion Method

➢   Barometric Method

➢   Statistical Methods such as:-

•   Trend Projection Method

•   Graphical Method

•   Least Square Method

•   Regression Analysis

•   Controlled Experiments Method

•   Laboratory Experiments Method

Theory of Consumer's Behaviour

1.   The logical basis of consumer behaviour has been explained by different theories. Some of the most important *theories of consumer behavior* are:

(i)   Marshall's Marginal Utility Theory

(ii)   Hicks and Allen's Indifference Curve Theory.

2.   *Marginal Utility Theory:*

➢   The law of diminishing marginal utility states that as the consumer consumes more and more units of a commodity, its marginal utility falls.

➢   Utility is expected satisfaction to a consumer when he is willing to spend money on a stock of commodity which has the capacity to satisfy his want.

➢   Marginal utility (MU) is addition made to total utility (TU) as a result of consumption of one more unit of the commodity.

➢   When MU is 0, TU is maximum. It is called saturation point.

➢   When MU is falling but positive TU is rising but with diminishing rate.

➢   When MU is negative, TU is falling.

❖   *Assumption of the theory*

(i)   Rationality

(ii)   Cardinality

(iii)   Measurement in terms of money.

(iv)   Constant marginal utility of money

(v)   Independent utility

❖   *Marshall's consumer surplus* :-

The amount consumer is willing to pay – The amount he actually pays. = Area between the MU curve and price of the commodity.

3. *Indifference Curve Theory*

❖ *Assumptions* of the theory are:

(i) Rationality

(ii) Ordinarily

(iii) Diminishing marginal rate of substitution

(iv) Consistency and transitivity of choice

(v) More is better

Indifference curve shows different combinations of two goods that gives the same level of satisfaction to the consumer.

A set of indifference curves is called an *indifference map.*

Features of indifference curve are:

(i) Downward sloping to the right

(ii) Convex to the origin

(iii) Two indifference curve can never intersect each – other.

(iv) Higher indifference curve represents higher level of satisfaction.

(v) Indifference curve can not touch either of the axis.

➢ *Budget line* shows all the possible combinations of the two goods that can be bought by a consumer with given income and prices of goods.

➢ *Slope of the budget line* is the price ratio, i.e., $\dfrac{Px}{Py}$

➢ Slope of an indifference curve is called Marginal Rate of Substitution (MRS$_{xy}$).

➢ *A consumer is in equilibrium* when he maximises his utility with his given income and prices of the commodities. Equilibrium is reached at the point of tangency between indifference curve and budget line.

Conditions for consumer equilibrium is:

$$\text{MRS}_{xy} = \frac{Px}{Py} \qquad\qquad \text{......... (1)}$$

$$\text{or} \qquad \frac{MUx}{MUy} = \frac{Px}{Py} \qquad\qquad \text{......... (2)}$$

And Diminishing MRS

Supply

1. *Definition of Supply*: Supply of a commodity at a given price is the quantity of the commodity which is actually offered for sale per unit of time

2. There is difference between supply and stock. Supply is that part of stock which is actually brought in the market for sale. In case of perishable goods there is no differences between supply and stock.

3. The *major factors affecting supply* of a good are:
   i. Price of the good (P_x)
   ii. Price of related goods (P_r)
   iii. Prices of the factors of production (P_f)
   iv. State of technology (T)
   v. Government policy (G) etc.

4. The *law of supply* states that there is a direct relationship between price and quantity supplied of a commodity, other things remaining constant.

5. The *supply schedule* shows the different quantities of a commodity supplied by a firm within a given period of time at different prices.

6. The data of supply schedule is plotted on price-quantity axes to derive the *supply curve.*

7. *Movement along a supply curve* occurs due to changes in the price of good (P_x) itself.

8. *Shift of the supply curve* occurs due to changes in factors affecting supply other than commodity's is own price.

9. Movement on supply curve can be *expansion or contraction* in supply whereas shift of supply curve can be *increase or decrease* in supply.

10. The concept of *Elasticity of supply (E_s)* was developed by Marshall. Elasticity of supply is defined as the responsiveness of quantity supplied of a commodity due to change in its own price. Symbolically,

$$E_s = \frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$$

11. There are *five degree of Es* :

    i.   **Perfectly inelastic supply** (E_S = 0)

    ii.   **Inelastic supply** ($0 < E_S < 1$)

    iii. **Unitary elastic supply** (E_S = 1)

    iv. **Elastic supply** ($1 < E_S < \infty$)

    v.   **Perfectly elastic supply** ($E_S = \infty$).

12. *Methods of measurement of elasticity of supply* −

    ➢ **Percentage method** − $e_s = \dfrac{\% \text{ Change in quantity supplied}}{\% \text{ change in prive}}$

    ➢ **Point elasticity method** − $e_s = \dfrac{dq}{dp} \times \dfrac{p}{q}$

    ➢ **Arc method** $E_s = \dfrac{q_1 - q_2}{q_1 + q_2} \times \dfrac{P_1 + P_2}{P_1 - P_2}$

13. *Diagrammatic Method* −

    The rule is that

    ➢ if the supply curve passes through the point of origin, e_s is equal to unity,

    ➢ if the supply curve intercepts the *x-axis*, e_s is less than unity and

    ➢ if supply curve intercepts the *y-axis*, e_s is greater than unity.

    ➢ if supply curve is a vertical line parallel to *y-axis* e_s is equal to zero.

    ➢ if supply curve is a horizontal line parallel to *y-axis* e_s is equal to infinite.

Chapter 3
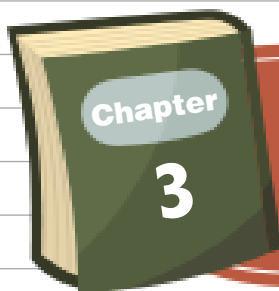
THEORY OF PRODUCTION AND COST

Theory of Productions

1. *Production means* creation or addition of utilities which can be form utility, time utility, place utility, knowledge utility and possession utility.

2. There are *four factors of production* namely, land, labour, capital and organisation.

3. *Land:-*
   - Land is a primary factor which includes besides physical territory, all natural resources such as water, soil, climate, wind, sea, etc.
   - Features of land are:
     (a) Its supply is perfectly inelastic.
     (b) It is imperishable (indestructible).
     (c) It is a passive factor.
     (d) It has perfectly inelastic supply(when taken as a whole).
     (e) It is a free gift of nature.
     (f) It is immobile.
     (g) It has heterogeneous use.

4. *Labour:-*
   Labour is any physical or mental exertion undertaken to create or produce goods or services. Features of labour are:

   (a) It is perishable.
   (b) It is inseparable from a labourer.
   (c) He sells his services and not himself.
   (d) Supply curve of labour is backward bending.
   (e) Labour is a live factor of production.
   (f) It is an active factor.
   (g) Labour is a man, not a machine.
   (h) All labourers are not equally efficient.
   (g) Labour is mobile.
   (j) Individual labour has weak bargaining power.

5. *Capital* is defined as man made goods that are used for further production of wealth. **It is produced means of production.**

6. *Capital formation* or investment is defined as the surplus of production over consumption in an accounting year which is further used for production.

   ➢ *Significance of capital formation* lies in the following points:

   (a) It determines the growth rate of an economy.

   (b) It increases production.

   (c) It raises productive capacity.

   (d) It raises employment opportunities.

   ➢ There are three *stages of capital formation* which are inter-related. These are:

   Stage I : *Creation/Generation of Savings*

   Stage II: *Mobilisation of Savings*

   Stage III: *Investment of Savings.*

7. *Entrepreneur:-*

   ➢ Entrepreneur is the person who organises. manages and coordinates all factors of production.

   ➢ *Functions of an entrepreneur are:*

   (a) Initiating a business enterprise and resource coordination

   (b) To take advantage of changes in a dynamic economy

   (c) To bring about innovations

   (d) To bear uncertainties.

   ➢ *Objectives of Entrepreneur* –

   I. Organic objectives

   II. Economic objectives

   III. Social objectives

   IV. Human objectives

   V. National objectives

   ➢ *Problems of Enterprise* - An enterprise faces a number of problems from its inception, through its life time and till its closure. These may relate to objective, location size, physical facilities, finance, organization structure, marketing, legal formalities and industrial relations.

8. *Factors of production can be divided into two categories* – **Fixed factors** are those factors whose quantity remains unchanged with change in output within a capacity and **variable factors** are those the quantity of which change with a change in the level of output.

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9. *Production function* is the process of getting the maximum output from a given quantity of inputs in a particular time period. *It establishes physical input-output relationship.*

    ➢ There are two **types of production function:**

    (a) *Short-run production function:* where some factors are in fixed supply.

    (b) *Long-run production function:* where all factors are in variable supply.

10. *Law of variable proportions*

    ➢ The three *concepts of production* are total, average and marginal product.

    ➢ *Total product* is aggregate of the quantity of a good produced by a firm with the given inputs during a specified period of time, i.e TP = ∑MP

    ➢ *Average product* is the amount of output per unit of the variable factor employed, i.e. $AP = \dfrac{TP}{Q}$

    ➢ *Marginal* product is the change in total product resulting from the employment of one more unit of variable factor, i.e. $MP = \dfrac{\Delta TP}{\Delta Q}$

    ➢ *TP curve* starts from the origin. Initially rises with an increasing rate, then rises at a decreasing rate, reaches a maximum and then starts falling.

    Both *AP and MP curves* are graphically derived from the TP curve. Both AP and MP curves are inverted-U shaped. They have special relationship which is as follows:

    (a) *When AP is rising, then MP > AP.*

    (b) *When AP is at its maximum then MP = AP.*

    (c) *When AP is falling then MP < AP.*

    Law of variable proportions states that 'when total output of a commodity is increased by adding units of a variable factor, while the quantities of other inputs are held constant, the increase in total production i.e. marginal product becomes after some point smaller and smaller'. The three product curves are drawn to graphically illustrate the law of variable proportions. The three stages are partitioned into increasing, diminishing and negative returns. *A rational producer will always operate in Stage II.* In this stage both AP and MP are declining but positive. The reason for diminishing returns is optimal use of fixed factor and imperfect substitution between factors. The law is applicable in short run.

11. *Law of Returns to Scale*

    ➢ It is a long-run law.

➢ It states that 'when all factors of production are increased in the same proportion then output will increase. but the increase may be at an increasing rate or constant rate or decreasing rate'.

➢ The three stages of law of return to scale are increasing, constant and decreasing.

➢ *Reasons behind increasing returns to scale* are economies of scale which can be internal or external, division of labour and specialization of activities.

➢ *Reason behind decreasing returns to scale* is diseconomies of scale which can also be internal or external.

➢ *Constant returns to scale operates* when economies and diseconomies are counter balanced.

12. *Production Optimization*

➢ It refers to cost minization. It explains producer's equilibrium through isoquant and iso-cost lines.

➢ **Isoquants or product indifference curves** show all those combinations of two factors of production which give the same output to the producer.

➢ **Isocost lines** show various combinations of two factors which the firm can buy with given expenditure or outlay.

➢ By combining Isoquants and isocost lines, a producer can find out the combination of factors of production which is optimum i.e. the combination of factors of production which would minimize his cost of production.

➢ For producing a given output, the **tangency point** of the relevant isoquant with an isocost line represents the least cost combination of factors. i.e. producer's equilibrium.

Theory of Cost

1. Cost analysis refers to the study of behaviour of cost in relation to one or more production criteria. It is concerned with the financial aspects of production.

2. *Opportunity Cost vs. Outlay Cost*-: **Opportunity cost** is defined as the cost of alternative opportunity given up or forgone. It is also called alternative cost or transfer earnings. **Outlay cost** is actual expenditure of firms.

3. *Explicit Cost vs. Implicit Cost:*- **Explicit cost** is the actual money expenditure incurred by a firm in the production process. It is also called direct cost or money cost. **Implicit cost** is the cost of factors owned by the firm and used by the firm in its own production process. It is also called imputed cost.

4. *Direct Cost vs. Indirect Cost:*- **Direct cost** can be traced to a particular product. **Indirect cost** cannot be traced to a particular product.

5. *Accounting Cost vs. Economic Cost*:- **Accounting costs** are explicit cost or actual cash payments. **Economic cost** is accounting cost plus implicit cost.

6. *Incremental cost* refers to the additional cost incurred by a firm as a result of a business decision.

7. *Sunk costs* are already incurred once and for all, and cannot be recovered.

8. *Historical cost refers* to the cost incurred in the past on the acquisition of a productive asset.

9. *Replacement cost* is the money expenditure that has to be incurred for replacing an old asset.

10. *Private costs* are costs actually incurred or provided for by firms and are either explicit or implicit.

11. *Social cost* refers to the total cost borne by the society on account of a business activity and includes private cost and external cost.

12. *Short-Run Cost Curves*

    (a) **Short- run Total Costs -**
    - ➤ *Total Cost* is inverse-S shaped starting from the level of fixed cost.
    - ➤ *TFC* is horizontal line parallel to X axis
    - ➤ *TVC* is inverse S-shaped curve starting from origin
    - ➤ *Semi-variable cost* is the cost which have a fixed element and a variable element
    - ➤ *Stair-step cost* which remain fixed over a certain range of output and suddenly jump to a higher level when output goes beyond a given limit and become constant for next range of output.

    (b) **Short-run Average Costs -**
    - ➤ *AFC,* is fixed cost per unit of output produced. AFC curve has a rectangular hyperbole shape.
    - ➤ *AVC* is variable cost per unit of output produced. It is **U shaped** due to law of variable proportion.
    - ➤ *AC* is also called average total cost (*ATC*). It can be obtained in two ways:

      $ATC = \dfrac{TC}{Q}$ or ATC = AFC + AVC. ATC is U-shaped curve.

      The reason behind its shape is the law of variable proportions.

(c) **Marginal Cost -**

MC is addition made to TC (or TVC) when one more unit of output is Produced.

$$MC = \frac{\Delta TC}{\Delta Q} \text{ or } (MC_n = TC_n - TC_{n-1})$$

MC is the slope of the TC curve at each and every point. MC curve is U-shaped reflecting the law of variable proportions. $(MC_n = TC_n - TC_{n-1})$

MC is independent from TFC. It is function of variable cost and can also be calculated as

$$MC = \frac{\Delta TVC}{\Delta Q}$$

(d) **Relationship between AC and MC**
- When AC is falling, MC is below it. i.e. MC<AC
- When AC is rising, MC is above it. i.e. MC>AC
- When AC is minimum MC = AC.

13. *Long run average Cost (LAC) curve* is an **envelope curve.** It is also known as planning curve. It envelopes infinite short run AC curves. Each point on LAC gives the minimum cost per unit for corresponding level of output.

14. *LAC curve* is 'U' shaped curve because of operation of law of return to scale.

15. According to *modern approach* LAC curve is 'L' shaped curve because modern approach believes technological advancement is possible during production process over the period of time.

16. *Economies of scale* are of two kinds – **External Economies** of scale and **Internal Economies of Scale.**
- *External Economies* of scale accrue to a firm due to factors which are external a firm.
- *Internal Economies* of scale accrue to a firm when it engages in large scale production.
- Increase in scale, beyond the optimum level, results in **Diseconomies of scale.**

Chapter 4
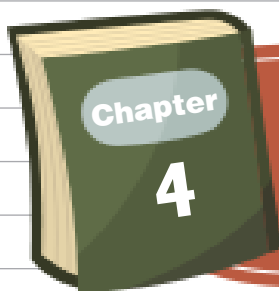
PRICE DETERMINATION IN DIFFERENT MARKETS

Meaning and Types of Markets

1. **Definition:-** A market is a complex set of activities by which potential buyers and sellers interact to determine the price and quantity of a good or service.

2. **Value and Price:** Price is the value of good in terms of money and value is economic worth of a good expressed in relation to another good. ®

3. **Market Structures:**

   On the basis of the area
   - Local Market
   - Regional Market
   - National Market
   - International Market

   On the basis of time
   - Very short period Market or Market Period Market
   - Short-period Market
   - Long Period Market
   - Very Long Period or secular Period Market

   On the basis of Nature of Transactions
   - Spot Market
   - Future Market

   On the basis of Regulation
   - Regulated Market
   - Unregulated Market

On the basis of volume of business
- ➢ Wholesale Market
- ➢ Retail Market

On this basis of competition
- ➢ Perfect Competition
- ➢ Monopoly
- ➢ Monopolistic Competition
- ➢ Oligopoly
- ➢ Duopoly

4. *Revenue* is the money payment received by a firm from the sale of a commodity.
   - ➢ TR is the total or aggregate of proceeds to the firm from the sale of all the units of a commodity. It is given as: TR = P × Q.
   - ➢ AR is revenue per unit of output sold and is always equal to price .i.e., AR = P

   $$\left[AR = \frac{TR}{Q} = \frac{P \times Q}{Q} = P \right]$$

   - ➢ MR is the addition made to TR when one more unit of output is sold. It is given as

   $$MR = \frac{\Delta TR}{\Delta Q}. \text{ or } MR_n = TR_n - TR_{n-1}.$$

   $$MR = AR\left(1 - \frac{1}{e}\right)$$

5. There are two basic *principle governing all market conditions*
   - (a) *Firms should produce Only if TR ≥ TVC or AR ≥ AVC*
   - (b) **To be equilibrium i.e. to maximaize profits of minimize losses a firm should produce at that level where MC = MR and MC must be rising.**

Determination of Price

1. *Equilibrium price* is that price at which demand and supply equals each other and quantity demanded and supplied at that price are regarded as equilibrium quantity.
2. *Shifts in demand and supply curves* takes place due to changes in factors other than price of the commodity.
3. *A change in demand,* supply remaining constant, leads to a change in the equilibrium price. If demand increases, both equilibrium price and quantity will rise. If demand decreases, both equilibrium price and quantity will fall.

4. *A change in supply,* demand remaining constant, leads to a change in the equilibrium price and quantity. If Supply increases, price will fall and quantity will rise and if supply decreases, price will rise and quantity will fall.

5. *If both demand and supply change* – There can be simultaneous changes in both demand and supply and the equilibrium price will change according to the proportionate change in demand and supply. Which may be –

   ➢ When **both demand and supply** increase, the equilibrium quantity increases but the change in equilibrium price in uncertain.

   ➢ When **both demand and supply decrease**, the equilibrium quantity decreases but the change in equilibrium price is uncertain.

   ➢ When **demand increases and supply decreases,** the equilibrium price rises but nothing certain can be said about the change in equilibrium quantity.

   ➢ When **demand decreases and supply increases**, the equilibrium price falls but nothing certain can be said about the change in equilibrium quantity.

Price – Output Determination under Different Forms of Market

Perfect Competition

1. Perfect competition is a market situation where large number of sellers are selling homogeneous product to large number of buyers at uniform price.

2. In perfect competition price is determined by the industry which individual firm has accept as given and constant. **Thus, firms under perfect competition is price taker.**

3. Short-run equilibrium of a firm –

   Conditions for equilibrium –

   (i) MC=MR and

   (ii) MC must be rising

4. In short run following three situations can take place –

   (a) Supernormal or abnormal profits when price (AR)>ATC

   (b) Normal profits when price(AR)=ATC and

   (c) Losses when price (AR) < ATC

5. *In the long – run, adjustment process takes place and all firms earn just normal profits at the minimum point on LAC curve where SAC = LAC = SMC = LMC = P = AR = MR.*

Monopoly:-

1. Monopoly is a market situation where single seller is selling the product having no substitute available in the market to large number of buyers at same or differentiated prices.

2. _Monopolist is a price maker and faces a downward sloping demand curve._

3. In short-run following three situations can take place –
   a) Supernormal or abnormal profits when price (AR)>ATC
   b) Normal profits when price(AR)=ATC and
   c) Losses when price (AR) < ATC

4. **In a long-run monopolist can continue to enjoy super-normal profits because entry-exit is restricted.**

Pricing under Discriminating Monopoly:-

1. _Discriminating monopoly_ is a situation where the monopolist charges different prices from different buyers for same product.

2. _Conditions necessary for price-discrimination:-_
   - Seller should have some monopoly power,
   - Seller must be in a position to divide his total market in two or more than two sub-markets,
   - There should be effective separation of the market and
   - Elasticity of demand should be different in different sub-markets.

3. _Objective of Price discrimination:-_
   - To earn maximum profit
   - To dispose of surplus stock
   - To enjoy the economies of scale
   - To capture foreign markets
   - To secure equity through pricing

4. *Degrees of price discrimination:-*
  ➢ First degree-entire consumer surplus will be withdrawn
  ➢ Second degree a part of consumer surplus will be withdrawn
  ➢ Third degree price varies according to location or by customer segment

Pricing under Monopolistic Competition:-

1. Monopolistic competition is a market situation where large number of sellers are selling slightly differentiated products to large number of buyers and price charged by different sellers for their product is different.

2. In short-run following three situations can take place –
  ➢ Supernormal or abnormal profits when price (AR)>ATC
  ➢ Normal profits when price(AR)=ATC and
  ➢ Losses when price (AR) < ATC

3. In the long-run due to free entry and exit adjustment will take place and only normal profits will be earned. **But, at equilibrium level firm will have excess capacity** i.e. *firm will be in equil. before optimum level of output.*

Pricing under Oligopoly

1. Oligopoly is a market situation where few sellers (2 to 10) are selling slightly differentiated or identical products to large number of buyers.

2. The demand curve is not defined as there are action-reaction patterns among firms. There is no general theory of pricing under oligopoly.

3. *Sweezy's Kinked demand curve model* **- It is based on the assumption that firms match price cuts but not price rises. It rationalises price rigidity in oligopolistic market.** It shows that even if cost changes, prices charged for the commodity does not change.

Distinguishing features of major types of markets

| Assumption	Market types			
	Pure competition	Monopolistic competition	Oligopoly	Monopoly
Number of sellers	Many	Many	A few(2 to 10)	One
Product differentiation	None	Slight	None to substantial	Extreme
Price elasticity of demand of a firm	Infinite	Large	Small	Small
Degree of control over price	None	Some	Some	Very considerable

Note:- Other Important Market Forms are –

i.   Duopoly – a subset of oligopoly, is a market situation in which there are only two firms in the market.

ii. **Monopsony –** is a market characterized by a single buyer of a product or service and is mostly applicable to factor markets in which a single firm is the only buyer of a factor.

iii. **Oligopsony –** is a market characterized by a small number of large buyers and is mostly relevant to factor markets.

iv. **Bilateral monopoly –** is a market structure in which there is only a single buyer and a single seller i.e. it is a combination of monopoly market and a monopsony market.

Chapter
5
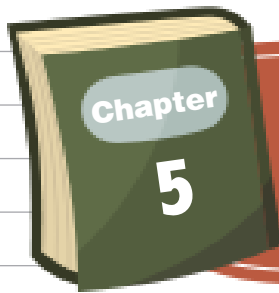
BUSINESS CYCLES

1. The rhythmic fluctuations in aggregate economic activity that an economy experience over a period of time are called **business cycles** or **trade cycles** and are manifested in fluctuations in measured of aggregate economic activity such as gross national product, employment and income.

2. *A typical business cycle has four distinct namely.*
   ➤ **Expansion** (also called boom or upswing) characterized by increase in national output and all other economic variables.
   ➤ **Peak** or boom or prosperity refers to the top or the highest point of the business cycle.
   ➤ **Contraction** (also called downs-wing or recession) when there is fall in the levels of investment, employment.
   ➤ **Trough or depression** occurs when the process of recession is complete and there is severe contraction in the economic activities.

3. Economists use changes in a variety of activities to measures the business cycle and to predict where the economy is headed towards. These are called indicators.

4. A **leading indicator** is a measurable economic factor that changes before the economy starts to follow a particular patter or trend. i.e. they change before the real output changes.

5. Variables that change after real output changes are called **'Lagging indicators"**.

6. *Coincident economic indicator,* also called concurrent indictors, coincide or occur simultaneously with the business-cycle movements.

7. According to Keynes, fluctuations in economic activities are due to fluctuations in aggregate effective demand.

8. According to some economists, fluctuations in investments are the prime cause of business cycles. Investment spending is considered to be the most volatile component of the aggregate demand.

9. Fluctuations government spending with its impact on aggregate economic activity result in business fluctuations.

10. Macroeconomic policies, (monetary and fiscal policies) also cause business cycle.

11. According to Hawtrey, trade cycle is purely monetary phenomenon. Unplanned changes in the supply of money may cause business fluctuation in an economy.

12. According to Pigou, modern business activities are based on the anticipations of business community and are affected by waves of optimism or pessimism.

13. According to Schumpeter, trade cycles occur as a result of innovations which take place in the system from time to time.

14. Understanding what phase of the business cycle an economy is in and what implications the current economic conditions have for their current and future business activity, helps businesses to better anticipate the market and to respond with greater alertness.

Chapter 6
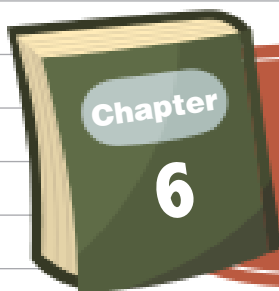
DETERMINATION OF NATIONAL INCOME

UNIT 1: NATIONAL INCOME ACCOUNTING

PRECAUTIONS WHILE CALCULATING NATIONAL INCOME:

(1) National Income is a money value of all final Goods and services produced in domestic territory during the FY plus net income from abroad.

(2) All earned income will be part of National Income and all unearned Income like gift, grants, charity, donation, pension to be excluded from National Income.

(3) Anything produced for self-consumption will be added in National Income.

(4) Any kind of financial Investment where Investment is done in shares, bonds, FD, debentures etc not to be included.

(5) Value of only Final product should be taken. Raw material, intermediate goods, semi-finished goods, which should be excluded from National Income.

(6) Any kind of second hand product or transaction where goods are produced in the previous year should be excluded from the National Income. However, commission or brokerage earned over it should be included in NI calculation.

(7) Income earned by foreign companies in India value of goods produced will be added, profit earned will be excluded.

(8) Any windfall Gain or Losses should be excluded from the calculation of National Income.

(9) Any kind of Illegal income where money is earned through Smuggling, Hawala money will be excluded from National Income.

(10) Rent, wages, Interest, Profit, Dividend, Mixed Income to be added in National Income.

(11) All export and receipts are added and all the imports and payment are deducted.

(12) Depreciation to be deducted and Indirect tax to be deducted. , Subsidies Added

DEFINE NATIONAL INCOME AND EXPLAIN THE USEFULNESS OF NATIONAL ESTIMATE:

National Income is defined as the net value of all economic goods and services produced within the domestic territory of a country in an accounting year plus the net factor income from abroad. According to the Central Statistical Organisation (CSO) ' National income

is the sum total of factor incomes generated by the normal residents of a country in the form of wages, rent, interest and profit in an accounting year'.

Following are the Usefulness of estimating National Income:

➤ National income estimates provide a comprehensive, conceptual and accounting framework for analyzing and evaluating the short-run performance of an economy.

➤ The distribution pattern of national income determines the pattern of demand for goods and services and enables businesses to forecast the future demand for their products.

➤ Economic welfare depends to a considerable degree on the magnitude and distribution of national income, size of per capita income and the growth of these over time.

➤ It shows the composition and structure of national income in terms of different sectors of the economy, the periodical variation in them and the broad sectoral shift in an economy over time. Using these information, the governments can fix various sector- specific development target for different sectors of the economy and formulate suitable development plans and policies to increase growth rates.

➤ National income statistics also helps in assessing and selecting economic policies and for objective statement as well as evaluation of governments' economic policies.

➤ The national income data are also useful to determine the share of nation's contributions to various international bodies.(which helps to determine Income, Standard of living and eligibility for loans)

➤ Combined with financial and monetary data, national income data provide a guide to make policies for growth and inflation.

➤ National Income estimates helps in economic forecasting and to make projections about the future development trends of the economy.

DESCRIBE THE GENERALLY USED CONCEPT OF NATIONAL INCOME:

The basic concept and definitions of the terms used in national accounts largely follow those given in the UN System of National Account (SNA) developed by United Nations to provide a comprehensive conceptual and accounting framework for compiling and reporting macroeconomic statistic for analyzing and evaluating the performance of an economy. Each of these concepts has a specific meaning, use and method of measurement.

Following are the generally used concepts of National Income:

Gross Domestic Product (GDP mp): Gross domestic product (GDP) is a measure of the market value of all final economic goods and services, gross of depreciation, produced within the domestic territory of a country during a given time period. It is the sum total of

'value added' by all producing units in the domestic territory and includes value added by current production by foreign residents or foreign-owned firms. The term 'gross' implies that GDP is measured 'gross' of depreciation. 'Domestic' means domestic territory or resident production units.

Gross Domestic Product at Factor Cost (GDP fc): GDP at factor cost is called so because it represents the total cost of factors viz. labour, capital and entrepreneurship.

Gross National Product (GNP): It is a measure of the market value of all final economic goods and services, gross of depreciation, produced within the domestic territory of a country by normal residents during an accounting year including net factor incomes from abroad.

Net Domestic Product at market prices (NDP mp): It is a measure of the market value of all final economic goods and services, produced within the domestic territory of a country by its normal resident and non-residents during an accounting year less depreciation.

Net National Product at Market Prices (NNP mp): is a measure of the market value of all final economic goods and services, produced by normal residents within the domestic territory of a country including Net Factor Income from Abroad during an accounting year excluding depreciation.

GDP mp = Value of Output in the Domestic Territory – Value of Intermediate Consumption
GDP mp = Σ Value Added

GNP mp = GDP mp + Net Factor Income from Abroad

GDP mp = GNP mp – Net Factor Income from Abroad

National = Domestic + Net Factor Income from Abroad

NDP mp = GDP mp – Depreciation
NDP mp = NNP mp – Net Factor Income from Abroad

Gross = Net + Depreciation or Net = Gross – Depreciation

NNP mp = GNP mp − Depreciation

NNP mp = NDP mp + Net Factor Income from Abroad

NNP mp = GDP mp + Net Factor Income from Aboard − Depreciation

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Market Price = Factor Cost + Net Indirect Taxes

= Factor Cost + Indirect Taxes − Subsidies

Factor Cost   = Market Price − Net Indirect taxes

= Market Price − Indirect Taxes + Subsidies

Gross Domestic Product at Factor Cost (GDP fc)

= GDP mp − Indirect Taxes + Subsidies

= Compensation of employees

+ Operating Surplus (rent + interest + profit)

+ Mixed Income of Self −   employed

+ Depreciation

NDP fc   = NDP mp − Net Indirect Taxes

= Compensation of employees

= Operating Surplus (rent + interest = profit)

= Mixed Income of Self −   employed

EXPLAIN THE TERM GROSS DOMESTIC PRODUCT (GDP). HOW IS IT ESTIMATED?

Gross domestic product (GDP) is a measure of the market value of all final economic goods and services, gross of depreciation, produced within the domestic territory of a country during a given time period. It is the sum total of 'value added' by all producing units in the domestic territory and includes value added by current production by foreign residents or foreign-owned firms. The term 'gross' means implies that GDP is measured 'gross' of depreciation. 'Domestic' means domestic territory or resident production units. However, GDP excludes transfer payment, financial transaction and non – reported output generated through illegal transaction such as narcotics and gambling (these are known as 'bads' as opposed to goods which GDP accounts for).

Gross Domestic Product (GDP) is in fact Gross Domestic Product at market prices (GDP mp) because the value of goods and services is determined by the common measuring unit of money or it is evaluated at market prices. Money enables us to measure and find the aggregate of different types of products expressed in different units of measurement by converting them in terms of Rupees.

GDP can be estimated either at market price (MP) or at Factor Cost (FC). At Market Price GDP includes all the indirect taxes while it excludes the subsidies given by the government. While on the other hand GDP at Factor Cost includes all the cost incurred in the production of goods. In other words GDP at factor cost does not include indirect taxes.

When the GDP is estimated at current price. It exhibits Nominal GDP, whereas Real GDP is when the estimation is made at constant prices. Both Nominal and real GDP are considered as a financial metric for evaluating country's economic growth and development.

Nominal GDP is GDP evaluated at current market prices. Therefore, nominal GDP will include all of the changes in market prices that have occurred during the current year due to inflation or deflation.

Real GDP is GDP evaluated at the market prices of some base year. For example, if 1990 were chosen as the base year, then real GDP for 1995 is calculated by taking the quantities of all goods and services purchased in 1995 and multiplying them by their 1990 prices. Currently Base year is 2011-12

DISTINGUISH BETWEEN GDP CURRENT AND CONSTANT PRICES. WHAT PURPOSE DOES REAL GDP SERVE?

Gross domestic product (GDP) at current prices is GDP at prices of the current reporting period. It is the market value of goods and services produced in a country during a year. It is known as nominal GDP. GDP at current prices includes the effect of inflation. On the other hand GDP at constant prices also known as Real gross domestic product (GDP) is measure that reflect the value of all goods and services produced by an economy in a given year, expressed in base-year prices.

GDP, which is essentially a quantity measure, is sensitive to changes in the average price level. The same physical output will correspond to a different GDP level if the average level of market prices changes. That is, if prices rise. GDP measured at market prices will also rise without any real increase in physical output. This is misleading because it does

not reflect the changes in the actual volume of output. To correct this i.e. to eliminate the effect of prices, in addition to computing GDP in terms of current market prices, termed 'nominal GDP' or 'GDP at current price', the national income accountants also calculate 'real GDP' or 'GDP at constant prices' which is the value of domestic product in terms of constant prices of a chosen base year.

WHAT IS THE DIFFERENCE BETWEEN THE CONCEPTS 'MARKET PRICE' AND 'FACTOR COST IN NATIONAL INCOME ACCOUNTING?

Factor cost is called so because it represents the total cost of factor viz. labor, capital and entrepreneurship.

In addition to factor cost, the market value of the goods and services will include indirect taxes which are:

➢ **Product taxes** like excise duties, customs, sales tax, service tax etc; levied by the government on goods and services, and

➢ **Taxes on production,** such as factory license fee taxes to be paid to the local authorities, pollution tax etc. which are unrelated to the quantum of production.

Government gives subsidy to many goods and services. The market price will be lower by the amount of subsidies on products and production which the government pays to the producer. Hence, the market value of final expenditure would exceed the total obtained at factor cost by the amount of product and production taxes reduced by the similar kinds of subsidies.

For example if the factor cost of a unit of goods X is Rs. 50/, indirect taxes amount to Rs.15/per unit and the government gives a subsidy of Rs. 10/per unit, then market price will be Rs.55/- Thus, we find that the basic of distinction between market price and factor cost is net indirect taxes (i.e. Indirect taxes – Subsidies).'

Market Price	= Factor Cost + Net Indirect Taxes
	= Factor Cost + Indirect Taxes – Subsidies
Factor Cost	= Market Price – Net Indirect Taxes
	= Market Prices – Indirect Taxes + Subsidies

EXPLAIN VALUE ADDED METHOD AS APPLIED IN NATIONAL INCOME ACCOUNTING?

(1) **Product method/ Output method/Inventory method/ Industry origin method/Value added method/ Final goods method.**

This method of measuring national income is also known as Industry origin method.

This method approaches NI from output side.

According to this method, economy is divided into different sectors, such as Agriculture, Mining, Manufacturing, Transport.

The output or product method is calculated either by valuing all final goods and services produced during the year or by adding all the values at each stage of production till it becomes the Final product.

Final goods are those goods which are ready for final consumption According to Approach value of all 'Final goods and services produced in primary, secondary and territory are Included and values of all Intermediate transactions are Ignored.

In order to Avoid Double Counting, Value Added method is used.

The difference between Value of material output & input at each stage of production is called as "**Value Added.**

GVA mp = Value of output – Intermediate Consumption

GVA mp = Sales + change in stock (closing – opening) - Intermediate Consumption

Gross Value Added

= GVA

+ Primary sector

+ Secondary sector

+ Territory Sector

   GDP mp

(+) NFIA

 GNP mp

 (–) Dep

 NNP mp

(–) IT+S

NNP FC = National Income

Example: Bread.

Stage	Value of Output	Value of Input	Value Added
Farmer	7.00	0.00	7.00
Flour mill	10.00	7.00	3.00
Bakery	13.00	10.00	3.00
Retailer	14.00	13.00	1.00
			14.00

Per capita Income

The GDP per capita is a measure of a country's economic output per person. It is obtained by dividing the country's gross domestic product, adjusted by inflation, by the total population. It serves as an indicator of the standard of living of a country.

$$\text{PCI} = \frac{\text{National income}}{\text{Total Population}}$$

Explain Personal Income

While national income is income earned by factors of production, Personal Income is the income received by the household sector including Non-Profit Institutions Serving Households. Thus, national income is a measure of income earned and personal income is a measure of actual current income receipt of persons from all sources which may not be earned from productive activities during a given period of time. In other words, it is the income 'actually paid out' to the household sector, but not necessarily earned. Examples of this include transfer payment such as social security benefits, unemployment compensation, welfare payment etc. Individuals also contribute income which they do not actually receive; for example, undistributed corporate profits and the contribution of employers to social security. Personal income forms the basis for consumption expenditures and is derived from national income as follows:

PI = NI + income received but not earned – income earned but not received

An important point to remember is that national income is not the sum of personal incomes because personal income includes transfer payments (e.g. Pension) which are excluded from national income. Also not all national income accrues to individuals as their personal income.

- Personal Income
- National Income

NFIA + Rent + Interest + Wages + Profit + Dividend	Less: 1. Undistributed Corporate Profit 2. Corporate Tax 3. Social Security Contribution Add: Transfer Payment

Explain Disposable Personal Income (PDI)

Disposable personal income is a amount of the money in the hands of the individual that is available for their consumption or savings. Disposable personal income is derived from personal income by subtracting the direct taxes paid by individual and other compulsory payment made to the government.

$$DI = PI - Personal\ Incomes\ Taxes$$

HOW IS NATIONAL INCOME CALCULATED UNDER 'INCOME METHOD'?

Production is carried out by the combined effort of all factors of production. The factors are paid factor incomes for the services rendered. In other words, whatever is produced by a producing unit is distributed among the factors of production for their services.

Under Factor Income Method, also called Payment Method or Distributed Share Method, national income is calculated by summation of factor incomes paid out by all production units within the domestic territory of a country as wages and salaries, rent, interest, and profit by definition, it includes factor payment to both residents and non-residents.

Thus,

NDP FC = Sum of factor incomes paid out by all production units within the domestic territory of a country

NNP FC or National Income = Compensation of employees + Operating Surplus (rent + interest + profit) + Mixed Income of self-employed + Net Factor income from Abroad

Only incomes earned by owners of primary factors of production are included in national incomes. Transfer incomes are excluded from national income. Thus, while wages of labourers will be included, pensions of retried workers will be excluded from national income. Labour income includes, apart from wages and salaries, bonus, commission, employers' contribution to provident fund and compensations in kind. Non-labour income includes dividends, undistributed profits of corporations before taxes, interest, rent, royalties and profit of unincorporated enterprises and of government enterprises.

EXPLAIN 'EXPENDITURE METHOD' FOR CALCULATION OF NATIONAL INCOME?

In the expenditure approach, also called Income Disposal Approach, national income is the aggregate final expenditure in an economy during an accounting year. In the expenditure approach to measuring GDP, we add up the value of the goods and services purchased by each type of final user mentioned below:

1. **Final Consumption Expenditure:**

    (a) **Private Final Consumption Expenditure (PFCE)**

    To measure this, the volume of final sales and services to consumer households and nonprofit institutions serving households acquired for consumption (not for use in production) are multiplied by market prices and then summation is done. It also includes the value of primary product which are produced for own consumption by the households, payment for domestic services which one household renders to another, the net expenditure on financial assets or foreign investment. Land and residential buildings purchased or constructed by household are not part of PFCE. They are included in gross capital formation. Thus, only expenditure on final goods and services produced in the period for which national income is to be measured and net foreign investment are include in the expenditure method of calculating national income.

    (b) **Government Final Consumption Expenditure**

    Since the collective services provided by the governments such as defence, education, healthcare etc. are not sold in the market, the only way they can be valued in money terms is by adding up the money spent by the government in the production of these services. This total expenditure is treated as consumption expenditure of the government. Government expenditure on pensions, scholarships, unemployment allowance etc. should be excluded because these are transfer payments.

2. **Gross Domestic Capital formation**

    Gross domestic fixed capital formation includes final expenditure on machinery and equipment and own account production of machinery and equipments, expenditure on construction, expenditure on changes in inventories, and expenditure on the acquisition of valuables such as, jewelry and works of arts.

3. **Net Exports**

    Net exports are the difference between exports and imports of a country during the accounting year. It can be positive or negative.

    To arrive at national income or NNP FC using expenditure method we first find the sum of final consumption expenditure, gross domestic capital formation and net exports. The resulting figure is gross domestic product at market price (GDP MP). To this, we add the net factor income from abroad and obtain Gross National Product

at market price (GDP MP). Subtracting indirect taxes from GNP MP, we get Gross National Product at Factor cost (GNP FC). National income or NNP FC is obtained by subtracting depreciation from Gross national product at factor cost (GNP FC).

EXPLAIN GDP AND WELFARE:

(a) Income distributions and, therefore, GDP per capita is a completely inadequate measure of welfare. Countries may have significantly different income distributions and, consequently, different levels of overall well-being for the same level of per capita income.

(b) Quality improvement in systems and processes due to technological as well as managerial innovations which reflect true growth in output from year to year.

(c) Productions hidden from government authorities, either because those engaged in it are evading taxes or because it is illegal (drugs, gambling etc.).

(d) Non-market production (with a few exception) and Non-economic contributors to well-being for example: health of a country's citizens, education levels, political participation, or other social and political factors that may significantly affect well-being levels.

(e) The dis-utility of loss of leisure time. We known that, other things remaining the same a country's GDP rises if the total hours of work increase.

(f) Economic 'bads' for example: crime, pollution, traffic congestion etc. which makes us worse off.

(g) The volunteer work and services rendered without remuneration undertaken in the economy, even though such work can contribute to social well-being as much as paid work.

(h) Many things that contribute to our economic welfare such as, leisure time, fairness, gender equality, security of community feeling etc..,

(i) The distinction between production that makes us better off and production that only prevents us from becoming worse off, e.g. defense expenditure such as on police protection. Increased expenditure on police due to increase in crimes may increase GDP but these expenses only prevent us from becoming worse off.

EXPLAIN LIMITATION OF NATIONAL INCOME:

There are innumerable limitations and challenges in the computation of national income. The task is more complex in underdeveloped and developing countries. Following are the general dilemmas in measurement of national income. GDP measures ignore the following:

Conceptual difficulties:

(a)   Lack of an agreed definition of national income,

(b)   Accurate distinction between final goods and intermediate goods,

(c)   Issue of transfer payments,

(d)   Services of durable goods,

(e)   Valuation of government service

(f)   Valuation of a new product at constant price

Other challenges relate to:

(a)   Inadequacy of data and lack of reliability of available data,

(b)   Presence of non-monetized sector,

(c)   Absence of recording of income due to illiteracy and ignorance,

(d)   Lack of proper occupational classification, and

(e)   Accurate estimation of consumption of fixed capital.

(f)   Production for self consumption

CONSTANT PRICES VS. CURRENT PRICES

	At Constant Prices	At Current Prices
1.	Measurement of Value of Output at the Price level of a selected "**Base Year**"	Measurement of Value of Output at the Price level of the "**Current Year**"
2.	National Income is affect only by changes in **Output levels.**	National Income is affected by changes in **Price** levels and **Output** levels.
3.	National Income changes only when production/physical output changes.	National Income changes even if price change, without any change in production/physical output.
4.	This is also called **Real Value** of National Income, e.g. GDP at Constant Price = Real GDP.	This also called **Nominal Value** of National Income, e.g. GDP at Current Prices = Nominal GDP.

Private Income

Private income is a measure of the income (both factor income & transfer income) which accrues to private sector from all sources within & outside the country.

Private Income

=

Factor Income from Net domestic product

+

Net factor income from abroad

+

National debt interest

+

Current transfer from Govt.

+

Other Net transfer from the Rest of the world.

GDP deflator

- It is a measure of general price inflation.
- It taken into consideration both Nominal GDP as well as Real GDP.
- The word deflator indicates to 'deflate' or take inflation out of GDP.
- It is a Price index used to convert Nominal GDP into real GDP.
- The deflator measures the changes in Price that has occurred between base year and Current year

$$\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

Example 2.

Real GDP   ₹ 4700

Nominal GDP   ₹ 3000

Calculate GDP deflator

$$\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

$$= \frac{3000}{4700} \times 100 = 63.83$$

(Price has fallen)

Example 3.

	2010	2018
Nominal GDP	₹ 600	1200
Price index	100	110

$$\text{GDP deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100$$

$$110 = \frac{1200}{\text{Real GDP}} \times 100$$

$$\text{Real GDP} = \frac{1200 \times 100}{110} \times 100 = 1090.90$$

Year	GDP deflator
2018	100
2019	113.63
2020	130.25

Example 4.

$$\text{Inflation rate in current year 2019} = \frac{\text{GDP deflator 2019} - \text{GDP deflator 2018}}{\text{GDP deflator 2018}} \times 100$$

$$\frac{113.63 - 100}{100} \times 100 = 13.637$$

Example 5.

$$\text{Inflation rate 2020} = \frac{\text{GDP deflator 2020} - \text{GDP deflator 2019}}{\text{GDP deflator 2019}} \times 100$$

$$\frac{130.25 - 113.63}{113.65} \times 100$$

$$= 14.62\%$$

COMPARISON:

	Market Prices	Factor Cost
(a)	**Market Prices** refer to the Final Money Value of goods & service, i.e. Net Value Added in the course of production of goods & services.	Net Value Added by each Entry gets distributed as Income to the Owners of Factors of Production, i.e. as rent, Wages, Interest and Profits for the Owner of Land, Labour, Capital and Entrepreneurship respectively. This total is called Factor Cost.
(b)	Measurement at Market Prices constitute **external** sale price angle.	Measurement at Factor Cost constitute **internal** value addition angle.
(c)	Value at Market Prices = Value at Factor Cost **Add:** Indirect Taxes **Less:** Subsidies	Value at Factor Cost = Value at Market Prices **Less:** Indirect Taxes **Add:** Subsidies

NET DOMESTIC PRODUCT (NDP) & NET NATIONAL PRODUCT (NNP) AT MKT PRICES.

Based on the concept of "Domestic" and "National" measurements, as well as the concept of "Gross" and "Net" measurements given above, the following concepts of measurement arise −

	GDP at Factor Cost	GNP at Factor Cost
1. Meaning	GDPfc is the Total of Income of Factor of Production, i.e. Land, Labour, Capital and Entrepreneurship.	GNPfc is the Total of Income of Factors of Production, i.e. Land, Labour, Capital and entrepreneurship, **adjusted for** Net Factor Income from abroad.
2. Formula (a) Mp vs FC Route	GDPfc = GDPmp (−) Net Indirect Taxes	GNPfc = GNP (−) Net Indirect Taxes
(b) Total Factor Cost Route	**Compensation of Employees** + Operating Surplus + Mixed Income of Self− Employed + Depreciation	**Compensation of Employees** + Operating Surplus + Mixed Income of Self − Employed + Depreciation + Net Factor Incomes from Abroad

Note:

Net Indirect Taxes = Indirect Taxes (−) Subsidies.

Operating Surplus = Rent + Interest + Profits.

NET DOMESTIC PRODUCT (NDP) & NET NATIONAL PRODUCT (NNP) AT FACTOR COST:

Based on the concept of "Domestic" and "National" measurements as well as the concept of "Market Prices" and "Factor Cost" given above, the following concepts of measurement arise −

	NDP at Factor Cost	NNP at Factor Cost
1. Meaning	NDPfc is the Total of Incomes of Factor of Production, i.e. Land, Labour, Capital and Entrepreneurship, net of Depreciation.	NNPfc is Total of Incomes of Factor of Production, i.e. Land, Capital and Entrepreneurship, net of Depreciation, adjusted for Net Factor Incomes of Abroad.
2. Concept	NDPfc is the Total Domestic Factor Income, net of Depreciation.	NNPfc is the Total Factor Incomes accruing to normal resident of a country during a period.
3. Formula (a) Gross vs Net Route	NDPfc = GDPfc (−) Depreciation	NNPfc = GNPfc (−) Depreciation

(b)	MP vs FC Net Route	NDPfc = NDPmp (-) Net Income Taxes	NNP fc = NNPmp (-) Net Indirect Taxes
(c)	Total Factor Cost Route	Compensation of Employees + Operating Surplus + Mixed Income of Self- Employed	Compensation of Employees + Operating Surplus +Mixed Income of Self – Employed – Depreciation + Net Factor Incomes from Abroad

COMPARISON:

	National Income	Personal Income
(a)	**Income "earned by Factor of Production**	Current Income "received" by Persons from all sources.
(b)	It is measure of Income earned from productive activities.	It is measured of actual current Income receipts, from both productive and non-productive activities.
(c)	It forms the basis of Overall Income in the economy.	It forms the basis for Consumption Expenditure.

Note:

Personal Income is generally less than the National Income, unless Transfer Payment are very high.

Intermediate goods and final goods:

➢ Those goods which have crossed boundary line of production and ready for use by end user is known as final goods. Final goods are o1 two types.

    1. Consumer final goods (all the goods purchase by households)

    2. Producers final goods (capital goods): Agoods purchased by firm is capital goods if fulfilled all the following conditions –

        (i) Durable.

        (ii) Not for resale,

        (iii) Not use as raw material,

        (v) Comparatively costly.

    (If any of the above condition not fulfil then it will know as intermediate goods, which is described Below)

➢ Those goods which are within the boundary line of production and which are not ready for use by final user are known as intermediate goods,

Student mu st note that only final goods are included in national income not intermediate otherwise it leads to problem of double counting (which will be discuss later in this chapter)

So it is impo rtant to identify which good is intermediate and which good is final,

List showing some examples of intermediate and final goods:

ITEMS	GOODS	REASON
Machine purchased by dealer of machine	Intermediate	Dealer purchased machines for the purpose of resale
A car purchased by household	Final consumer	Household is the final user of the car,
Furniture purchased by a school	Final consumer	School will finally use furniture as capital assets.
Chalks, duster etc. Purchased by school	Intermediate	These goods will be consumed for the creation of educational service during a year.
Computers installed in a school	Final producer	School will finally use computers as capital assets.
Mobile sets purchased by mobile dealer	Intermediate	Dealer purchased mobile sets (or the purpose of resale.
Maintenance of office building	Intermediate	Items purchased for maintenance will be used up during the period of one year.
Improvement of a machine in factory	Final producer	It will increase the value of assets or it will leads to creation of assets.
Electricity consumed by firms	Intermediate	It will be used for production of goods and services in short period of time.

Purchase of rice by grocery shop	Intermediate	Grocery shop is purchasing rice to resale.
Cloth used for making a sofa-set by the carpenter	Intermediate	As it used as raw material in manufacturing of sofa set.
GST book purchased by tax consultant	Final producer	GST book is an asset for tax consultant.
Book purchased by a student	Final Consumer	Student is a household.

Factor income and trust transfer income

Basis	Factor income	Transfer
Meaning	It refer to income received by factors of production for Rendenng factor service or selling a product	It is the income received without rendering any service or selling any product.
Inclusion	It is Included in the calculation of national income as well as disposable income.	It is included in calculation of only disposable income
Example	Rent, wages, interest and profit	Old age pension, scholarship, charity, grants, retirement

FACTOR COST VS BASIC PRICE VS MARKET PRICE:

At this stage, we need to clearly understand the difference between the concepts: 'market price' and 'factor cost and Basic Price

GDP at Basic Price excludes any taxes on products the producer receives from the purchaser and passes on to the government (Eg: GST or Sales Tax or Services Tax) but includes any subsidies the producer receives from the government and uses to lower the prices charged to purchasers. In simple terms, the basic price is the subsidised price without tax.

Basic price = factor cost + Production taxes − Production subsidy

Relationship between Factor Cost and Basic Price:

Factor cost + production tax − production subsidies = Basic prices.

Relationship between Basic Price and Market Price:

Basic Price + Product tax − Product Subsidy = Market Price.

Note: Thus, market price includes both product tax as well as production tax while excluding both product and production subsidies.

DATA REQUIREMENTS AND OUTCOMES OF DIFFERENT METHODS OF NATIONAL INCOME CALCULATION:

Method	Data required	What is measured
Phase of Output: Value added method (Product Method)	The sum of net values added by all the producing enterprises of the country	Contribution of production units
Phase of income: Income Method	Total factor incomes generated in the production of goods and services	Relative contribution of factor owners
Phase of disposition: Expenditure method	Sum of expenditures of the three spending units in the economy, namely, government, consumer households, and producing enterprises	Flow of consumption and investment expenditures

Some Dos and Don'ts

Do not include the following items in the estimation of national income:

1. **Gifts from Abroad:** These are transfer payments and, therefore, not included in national income.

2. **Unemployment Allowance:** This is available to those persons who are not employed. This is, therefore, only a transfer payment not included in national income.

3. **Financial Help to Tsunami Victims:** It is not included in national income since it is a transfer payment.

4. **Purchase of Vegetables by a Restaurant:** It is not included in national income since it is an intermediate consumption.

5. **Expenses on Electricity by a Factory:** It is not included in national income since it is a part or intermediate consumption.

6. **Leisure-time Activities like Growing Vegetables by Household his Kitchen Garden:** By convention, value added through such activities is not accounted for in the estimation of national income/product.

7. **Services rendered by the Housewives:** These are included in national income because it is difficult to find their market value, and these are not rendered for the purpose of earning income.

8. **Money received by Individual from his son Working Abroad:** It is not included in national income of India because it is a kind of transfer income.

9. **Interest Received from a Friend on Loans offered to him for the Purchase of a Motorbike:** It is not included in national income because loans are used not for production purpose

10. **Corporate Profit Tax:** it is not included in the estimation of national income as it flows out of profits as transfer payment to the government.

    [Note: If profit is not known (in any numerical question) we can find its value by adding up: (a) dividends, (b) undistributed profits, and (c) corporate profit tax. However, if the question is: how do we treat corporate tax in the estimation of national income then the answer is as in point (x) above.]

Do include the following items in the estimation of national income:

1. **Defense and Security Services:** For maintaining law& order and defense of the country, the government has to employ defense personnel, policemen, judges and others. The services of these persons may be taken as intermediary or final. These are final services so far as they provide security and peaceful existence to the households.

2. **Free Services by the Government:** Free services by the government like free education, Tree medical facilities or street lighting involve expenditure by the government which is a part of government final consumption expenditure.
   Hence, expenditure on these services is taken as a part of expenditure on final goods and services. These are included in national income while using expenditure method.

3. **Employer's Contribution to Provident Fund:** It is included in national income, since it is paid by the employers on behalf of the employees.

4. **Rent Received by Indian Residents on Building Rented out to Foreign Embassies in India:** It is income from the rest of the world and forms a part of net factor income from abroad. Tit is included in national income.

5. **Profits Earned by a Branch of an Indian Bank in London:** It is included in national Income since Indian employees of Pakistan Embassy are normal residents of India.

6. **Salary to Foreign Technical Specialists:** As a payment of factor income to the 'non-resident'. It reduces national income.

7. **Dividend Received by an Indian Resident from his Investment in a Foreign Financial Firm:** It is included in national income of India because it is a part of net factor income from abroad.

NUMERICAL SUMS

Question 1

From the following data, calculate NNP$_{FC}$, NNP$_{MP}$, GNP$_{MP}$ and GDP$_{MP}$.

Items	₹ in Crores
Operating surplus	2000
Mixed income of self-employed	1100
Rent	550
Profit	800
Net indirect tax	450
Consumption of fixed capital	400
Net factor income from abroad	-50
Compensation of employees	1000

Answer

GDP$_{MP}$ = Compensation of employees + mixed income of self-employed + operating surplus + depreciation + net indirect taxes

(Note: operating surplus = rent + profit + interest)

$\quad\quad\quad\quad$ = $\quad$ 1000 + 1100 + 2000 + 400 + 450 = 4950

GNP$_{MP}$ = GDP$_{MP}$ + NFIA = 4950 + (-50) = 4900

NNP$_{MP}$ = GNP$_{MP}$ + P consumption of fixed capital = 4900 − 400 = 4500

NNP$_{FC}$ or NI = NNP$_{MP}$ − NIT = 4500 − 450 = = 4050 Crores

Question 2

From the following data, estimate National Income and Personal Income.

Items	₹ in Crores
Net national product at market price	1,891
Income from property and entrepreneurship accruing to government administrative departments	45
Indirect taxes	175
Subsidies	30
Saving of non-departmental enterprises	10
Interest on National debt	15

Current transfers from government	35
Current transfers from rest of the world	20
Saving of private corporate sector	25
Corporate profit tax	25

Answer:

National Income = Net national product at market price − Indirect taxes + Subsidies

= 1,891 − 175 + 30 = 1746 crores

Personal Income = National income − Income from property and entrepreneurship accruing to government administrative departments − Saving of non-departmental enterprises + National debt interest + Current transfers from government + Current transfers from rest of the world − Saving of private corporate sector − Corporate profit tax

= 1746 − 45 −10 + 15 + 35 + 20 − 25 − 25

= 1711 Crores

Question 3

Calculate the aggregate value of depreciation when the GDP at market price of a country in a particular year was ₹ 1,100 Crores. Net Factor Income from Abroad was ₹ 100 Crores. The value of Indirect taxes − Subsidies was ₹ 150 Crores and National Income was ₹ 850 Crores.

Answer

Given

GDP_{MP} = 1100 Crores, NFIA = 100 Crores, NIT =150 Crores, NNP_{FC} = 850 Crores

∴ GDP_{FC} = GDP_{MP} − NIT = 1100 − 150 = 950

GNP_{FC} = GDP_{FC} + NFIA = 950 + 100 = 1050

NNP_{FC} = GNP_{FC} − Depreciation

850 = 1050 − Depreciation

Depreciation = 1050 − 850 = 200 Crores.

Question 4

On basis of following information, calculate NNP at market price and Disposable personal income

Items	₹ in Crores
NDP at factor cost	14900
Income from domestic product accruing to government	150
Interest on National debt	170

Transfer payment by government	60
Net private donation from abroad	30
Net factor income from abroad	80
Indirect taxes	335
Direct taxes	100
Subsidies	262
Taxes on corporate profits	222
Undistributed profits of corporations	105

Answer

NNP at Market price = NNP at factor cost + indirect tax - subsidies

Where NNP at factor cost = NDP_{FC} + NFIA

= 14900 + 80 = 14980

Therefore, NNP_{MP} = Therefore, NNP $_{MP}$ = 14980 + 335 − 262 = 15053

Disposable personal income (DI) = PI- Personal income tax

PI = NI + income received but not earned − income earned but not received

= 14980 + 170 + 60 + 30 −150 −222− 105 = 14763

Therefore, DI = 14763- 100 = 14663 Crores

Question 5

Calculate National Income by Value Added Method with the help of following data-

Particulars	₹ (in Crores)
Sales	700
Opening stock	500
Intermediate Consumption	350
Closing Stock	400
Net Factor Income from Abroad	30
Depreciation	150
Excise Tax	110
Subsidies	50

Answer

$NVA_{(FC)}$ = $GDP_{(MP)}$ −Depreciation +NFIA- Net Indirect Tax

Where $GVA_{(MP)}$ = Value of output- intermediate consumption

Value of Output = Sales + change in stock

= 700 + (400-500) = 600

$GVA_{(MP)}$ = 600 − 350 = 250

Therefore NI   =   250 – 150 + 30 – (110 – 50)

               =   70 Crores

Question 6

Calculate the Operating Surplus with the help of following data–

Particulars	₹ in Crores
Sales	4000
Compensation of employees	800
Intermediate consumption	600
Rent	400
Interest	300
Net indirect tax	500
Consumption of Fixed Capital	200
Mixed Income	400

Answer

GVA_{MP} =   Gross Value Output$_{MP}$ – Intermediate consumption

          =   (Sales + change in stock) – Intermediate consumption

          =   4000 – 600 = 3400

GDP_{MP} = GVA_{MP} = 3400 Crores

NDP_{MP} = GDP_{MP} – consumption of fixed capital

          =   3400 – 200

          =   3200 Crores

NDP_{FC} = NDP_{MP} – NIT

          =   3200 – 500 = 2700 Crores

NDP_{FC} =   Compensation of employees + Operating surplus + Mixed income

2700   =   800 + Operating Surplus + 400

Operating surplus = 1500 Crores

Question 7

Calculate national income by value added method.

Particulars	(₹ in crores)
Value of output in primary sector	2000
Intermediate consumption of primary sector	200
Value of output of secondary sector	2800
Intermediate consumption of secondary sector	800

Value of output of tertiary sector	1600
Intermediate consumption of tertiary sector	600
Net factor income from abroad	-30
Net indirect taxes	300
Depreciation	470

Answer

GDP$_{MP}$ = (Value of output in primary sector – intermediate consumption of primary sector) + (value of output in secondary sector – intermediate consumption of secondary sector) + (value of output in tertiary sector – intermediate consumption of tertiary sector)

Value of output in primary sector	=	2000
– Intermediate consumption of primary sector	=	200
+ Value of output in secondary sector	=	2800
– Intermediate consumption in secondary sector	=	800
+ Value of output in tertiary sector	=	1600
– Intermediate consumption of tertiary sector	=	600

GDP$_{MP}$ = ₹ **4800 Crores**

NNP$_{FC}$ = GDP$_{MP}$ + NFIA –NIT–Depreciation

NNP$_{FC}$ = National income= 4800+(-30) – 300 – 470 = **4000 Crores**

Question 8

Calculate Net Value Added by Factor Cost from the following data.

Items	₹ in Crores
Purchase of materials	85
Sales	450
Depreciation	30
Opening stock	40
Closing stock	30
Excise tax	45
Intermediate consumption	200
Subsidies	15

Answer

GVA$_{MP}$ = Sales + change in stock – Intermediate consumption

= 450 + (30 – 40) –200

= 240 Crores

NVA$_{MP}$	=	GVA$_{MP}$ − Depreciation
NVA$_{MP}$	=	240 − 30 = 210 Crores
NVA$_{FC}$	=	NVA$_{MP}$ − (indirect tax − subsidies)
	=	210 − (45 −15) = 180 Crores

Question 9

Calculate NI with the help of Expenditure method and income method with the help of following data:

Items	₹ in Crores
Compensation of employees	1,200
Net factor income from Abroad	20
Net indirect taxes	120
Profit	800
Private final consumption expenditure	2,000
Net domestic capital formation	770
Consumption of fixed capital	130
Rent	400
Interest	620
Mixed income of self-employed	700
Net export	30
Govt. final consumption expenditure	1100
Operating surplus	1820
Employer's contribution to social security scheme	300

Answer

By Expenditure method

GDP$_{MP}$ = Private final consumption expenditure + Government final consumption expenditure + Gross domestic capital formation (Net domestic capital formation+ depreciation) + Net export

= 2000 + 1100 + (770+ 130) + 30= 4030Crores

NNP$_{FC}$ or NI = GDP$_{MP}$− depreciation + NFIA − NIT

= 4030 − 130 + 20 − 120= 3800 Crores

By Income method

NNP_{FC} or NI = compensation of employees + operating surplus + Mixed income of selfemployed + NFIA

= 1200 + 1820 + 700 + 20 = 3740Crores

Question 10

From the following data calculate (a) Gross Domestic Product at Factor Cost, and (b) Gross Domestic Product at Market price

Items	₹ in Crores
Gross national product at factor cost	61,500
Net exports	(−) 50
Compensation of employees	3000
Rent	800
Interest	900
Profit	1,300
Net indirect taxes	300
Net domestic capital formation	800
Gross domestic capital formation	900
Factor income to abroad	80

Answer

(a) **GDP at factor cost = NDP at factor cost + Depreciation**

= Compensation of employees+ Rent+ Interest + Profit + Mixed income + (Gross domestic capital formation – Net domestic capital formation)

= ₹ 3,000 + ₹ 800 + ₹ 900 + ₹ 1,300 + (₹ 900 – ₹ 800)

= ₹ 6100 Crores

(b) **Gross Domestic Product at Market Price**

= GDP at factor cost + Net Indirect taxes = ₹ 6100 + ₹ 300

= 6400 Crores

Question 11

Calculate NNP$_{FC}$. By expenditure method with the help of following information-

Items	₹ in Crores
Private final consumption expenditure	10
Net Import	20
Public final consumption expenditure	05
Gross domestic fixed capital formation	350
Depreciation	30
Subsidy	100
Income paid to abroad	20
Change in stock	30
Net acquisition of valuables	10

Answer

Calculation of national income by expenditure method:

GDP$_{MP}$ = Government final consumption expenditure (Public final consumption expenditure) + Private final consumption expenditure + Gross domestic capital formation (Gross domestic fixed capital formation + change stock + Net acquisition of valuables) + Net export (Note: As net import is 20, hence, net export is -20)

= 5 + 10 + [350 + 30 +10]+(− 20) = 5 + 10 + 390 – 20 = 385 Crores

NNP$_{FC}$ = GDP$_{MP}$ − Depreciation + Net factor income from abroad (Income from abroad − Income paid to abroad) − Net Indirect tax (Indirect tax − subsidies)

= 385 − 30 + [0 − 20] − [0-100] = 385 − 30 − 20 + 100 = 435 Crores.

MODULE MULTIPLE CHOICE QUESTIONS

1. The concept of 'resident unit' involved in the definition of GDP denotes
    (a) A business enterprise which belongs to a citizen of India with production units solely situated in India
    (b) The unit having predominant economic interest in the economic territory of the country for one year or more irrespective of the nationality or legal status
    (c) A citizen household which had been living in India during the accounting year and one whose economic interests are solely in India
    (d) Households and business enterprises composed of citizens of India alone living in India during the accounting year

2. Read the following statements and answer the following question.
    I.   Intermediate consumption consists of the value of the goods and services consumed as inputs by a process of production,
    II. Intermediate consumption excludes fixed assets whose consumption is recorded as consumption of fixed capital.
    (a) Only I is true   (b) Both I and II are true
    (c) Only II is true   (d) Neither I nor II is true

3. Gross Domestic Product (GDP) of any nation
    (a) excludes capital consumption and intermediate consumption
    (b) is inclusive of capital consumption or depreciation
    (c) is inclusive of indirect taxes but excludes subsidies
    (d) None of the above

4. Read the following statements
    I.   'Value added' refers to the difference between value of output and purchase of intermediate goods.
    II. 'Value added' represents the contribution of labour and capital to the production process.
    (a) Statements I and II are incorrect
    (b) Statements I and II are correct
    (c) Statement I is correct and II is incorrect
    (d) Statement II is correct and I is incorrect

5. Non-economic activities are
   (a) those activities whose value is excluded from national income calculation as it will involve double counting
   (b) those which produce goods and services, but since these are not exchanged in a market transaction they do not command any market value
   (c) those which do not involve production of goods and services as they are meant to provide hobbies and leisure time activities
   (d) those which result in production for self consumption and therefore not included in national income calculation

6. Which of the following does not enter into the calculation of national income?
   (a) Exchange of previously produced goods
   (b) Exchange of second hand goods
   (c) Exchange of stocks and bonds
   (d) All the above

7. Which of the following enters into the calculation of national income?
   (a) The value of the services that accompany the sale
   (b) Additions to inventory stocks of final goods and materials
   (c) Stocks and bonds sold during eth current year
   (d) (a) and (b) above

8. Gross National Product at market prices GNP MP is
   (a) GDP MP + Net Factor Income from Abroad
   (b) GDP MP – Net Factor Income from Abroad
   (c) GDP MP – Depreciation
   (d) GDP MP + Net Indirect Taxes

9. Choose the correct statement
   (a) GNP includes earnings of Indian corporations overseas and Indian residents working overseas; but GDP does not include these
   (b) NNPFC = National Income = FID (factor income earned in domestic territory) – NFIA.
   (c) Capital goods and inventory investment are excluded from computation of GDP
   (d) NDPMP = GDPMP + Depreciation

10. The basis of distinction between market price and factor cost is
    (a) net factor income from abroad
    (b) net indirect taxes (i.e., Indirect taxes - Subsidies)
    (c) net indirect taxes (i.e., Indirect taxes + Subsidies)
    (d) depreciation (consumption of fixed capital)

11. If net factor income from abroad is positive, then
    (a) national income will be greater than domestic factor incomes.
    (b) national income will be less than domestic factor incomes.
    (c) net exports will be negative
    (d) domestic factor incomes will be greater than national income

12. The GDP per capita is
    (a) a measure of a country's economic output per person
    (b) actual current income receipts of persons
    (c) national income divided by population
    (d) (a)and (c) above

13. Which of the following is an example of transfer payment?
    (a) Old age pensions and family pensions
    (b) Scholarships given to deserving diligent students.
    (c) Compensation given for loss of property due to floods
    (d) All the above

14. Mixed income of the self -employed means
    (a) net profits received by self -employed people
    (b) outside wages received by self- employed people
    (c) combined factor payments which are not distinguishable,
    (d) wages due to non- economic activities

15. Which of the following is added to national income while calculating personal income?
    (a) Transfer payments to individuals
    (b) Undistributed profits of corporate
    (c) Transfer payments made to foreigners
    (d) Mixed income of self employed

ANSWERS:

1	(b)	2	(b)	3	(b)	4	(b)	5	(b)
6	(d)	7	(d)	8	(a)	9	(a)	10	(b)
11	(a)	12	(d)	13	(d)	14	(c)	15	(a)

➢ National income accounts are extremely useful for analyzing and evaluating the performance of an economy, knowing the composition and structure of the national income, income distribution, economic forecasting and for choosing economic policies and evaluating them.

➢ Gross domestic product (GDP_{MP}) is a measure of the market value of all final economic goods and services, gross of depreciation, produced within the domestic territory of a country during a given time period gross of depreciation.

➢ Capital goods (business plant and equipment purchases) and inventory investment—the net change in inventories of final goods awaiting sale or of materials used in the production are counted in GDP

➢ To eliminate the effect of prices, in addition to computing GDP in terms of current market prices, termed 'nominal GDP' or GDP at current prices,the national income accountants also calculate 'real GDP' or GDP at constant prices which is the value of domestic product in terms of constant prices of a chosen base year.

➢ GNP_{MP} = GDP_{MP} + Net Factor Income from Abroad

➢ NDP_{MP} = GDP_{MP} - Depreciation

➢ NDP_{MP} =NNP_{MP} - Net Factor Income from Abroad

➢ NNP_{MP} = GNP_{MP} - Depreciation

➢ Market Price = Factor Cost + Net Indirect Taxes= Factor Cost + Indirect Taxes – Subsidies

➢ Gross Domestic Product at Factor Cost (GDP_{FC}) = GDP_{MP} – Indirect Taxes + Subsidies

➢ Net Domestic Product at Factor Cost (NDP_{FC})is defined asthe total factor incomes earned by the factors of production.

➢ Net National Product at Factor Cost (NNP_{FC})or National Income

NNP_{FC} = National Income = FID (factor income earned in domestic territory) + NFIA.

➢ Personal income is a measure of the actual current income receipt of persons from all sources. Disposable Personal Income (DI) that is available for their consumption or savings DI = PI - Personal Income Taxes

➢ Circular flow of income refers to the continuous interlinked phases in circulation of production, income generation and expenditure involving different sectors of the economy.

➤ Product Method or Value Added Method is also called Industrial Origin Method or Net Output Method and entails the consolidation of the production of each industry less intermediate purchases from all other industries.

➤ Under income method, national income is calculated by summation of factor incomes paid out by all production units within the domestic territory of a country as wages and salaries, rent, interest, and profit. Transfer incomes are excluded.

➤ Under the expenditure approach, also called Income Disposal Approach, national income is the aggregate final expenditure in an economy during an accounting year composed of final consumption expenditure (private& government), gross domestic capital formation and net exports.

UNIT 2: THE KEYNESIAN THEORY OF DETERMINATION OF NATIONAL INCOME

1. Circular Flow of National Income Two Sector Model

Factor Services

Goods & Services

1. Households are the owners of factor of production and consumers of goods and services.
2. Business sector produces goods & services and sells them to household sector.
3. Household sector is the owner of Land, Labour and Capital.
4. Household sector receives Income by selling those services to business sector.
5. Business sector consist of producer who produces goods and services and sells them to household sector. Thus, one man's Income is another man's expenditure.

The above diagram Indicates money flows from household towards banking system which leads to borrowing by business which finally leads to Investment in the economy. Suppose planned saving exceeds planned Investment Income, Output and employment will fall and flow of money will decline. Now if planned Investment exceeds planned savings income, output & employment will Increase so saving are considered as leakage and Investment are considered as Injection.

The outer circle at the diagram shows Real flow (i.e.) the flow at factor service from household to business and flow of goods from business, to household.

The inner circle shows money flow, (i.e.) flow of factor payments from business to household & consumption expenditure from household to business.

Conclusion:

In the circular flow of income production generates factor income which is converted in to expenditure, this flow of income is a continuous activity due to never ending human wants.

Equilibrium level of national income two sector model

Explanation of diagram

1. Income is measured on the X – axis while aggregate demand is measured on the Y – Axis.

2. The C + I line is obtained through addition of consumption function (C) and investment function (I) at each level of income.

3. The C + I curve shows that aggregate demand rises with the rise in level of income.

4. Only at point E*, aggregate demand = output. Hence, point E* shows equilibrium level of income at OYo.

    1. At OYo, planned spending of households exactly equal to actual production of business sector ie AD=AS.

    2. At any income level below OYo, aggregate demand > Aggregate supply (C + I line is above 450 line). Alternatively, at income levels above OYo, AS > AD ie C+S >C + I

    3. In both the above cases, market mechanism will drive the income back to OYo through changes in the level of investment, employment and output.

    4. Panel B of dig shows saving and investment function. Saving schedule (S) slopes upward to indicate that savings rise with increase in income

    5. At point E*, investment also equals savings as shown by intersection of saving and investment schedule.

    6. At any income level above OYo savings > planned investment while at income levels below OY0, planned investment > savings.

    7. Hence, **only OYo indicates the equilibrium level where S = I** (Leakages are equal to injections)

2. **Short note on Consumption Function**

Agg. Income	Agg. Consumption	Savings
Y	C	S = Y – C
0	500	– 500 Dis Saving
1000	1200	– 200 Dis Saving
2000	2000	000
3000	2600	+ 400 Savings
4000	3300	+ 700 Savings
15000	4000	+ 1000 Savings

Lord J.M.Keynes explains the relationship between consumption and income in terms of psychological law of consumption in his book General theory of employment income (i.e.) money 1936.

According to this law, as aggregate income increases total consumption in the economy also increases but in lesser proportion than increase in income. This is because as income increases individual wants are satisfied to larger and larger extent. So when income increases further people do not consume entire income, they will save a part of it. Here, there is balance to be gap between income and consumption.

According Keynes with increase in income both consumption and saving increase. However

1. Consumption Increases at diminishing rate.
2. Saving Increases at increasing rate.

In the above Horizontal axis represents **Aggregate Income** and vertical axis represent consumption expenditure.

OA on vertical axis shows **Autonomous consumption** at zero level of income. Thus consumption curve starts at moves to B and further C. (i.e.) **C = a + by**.

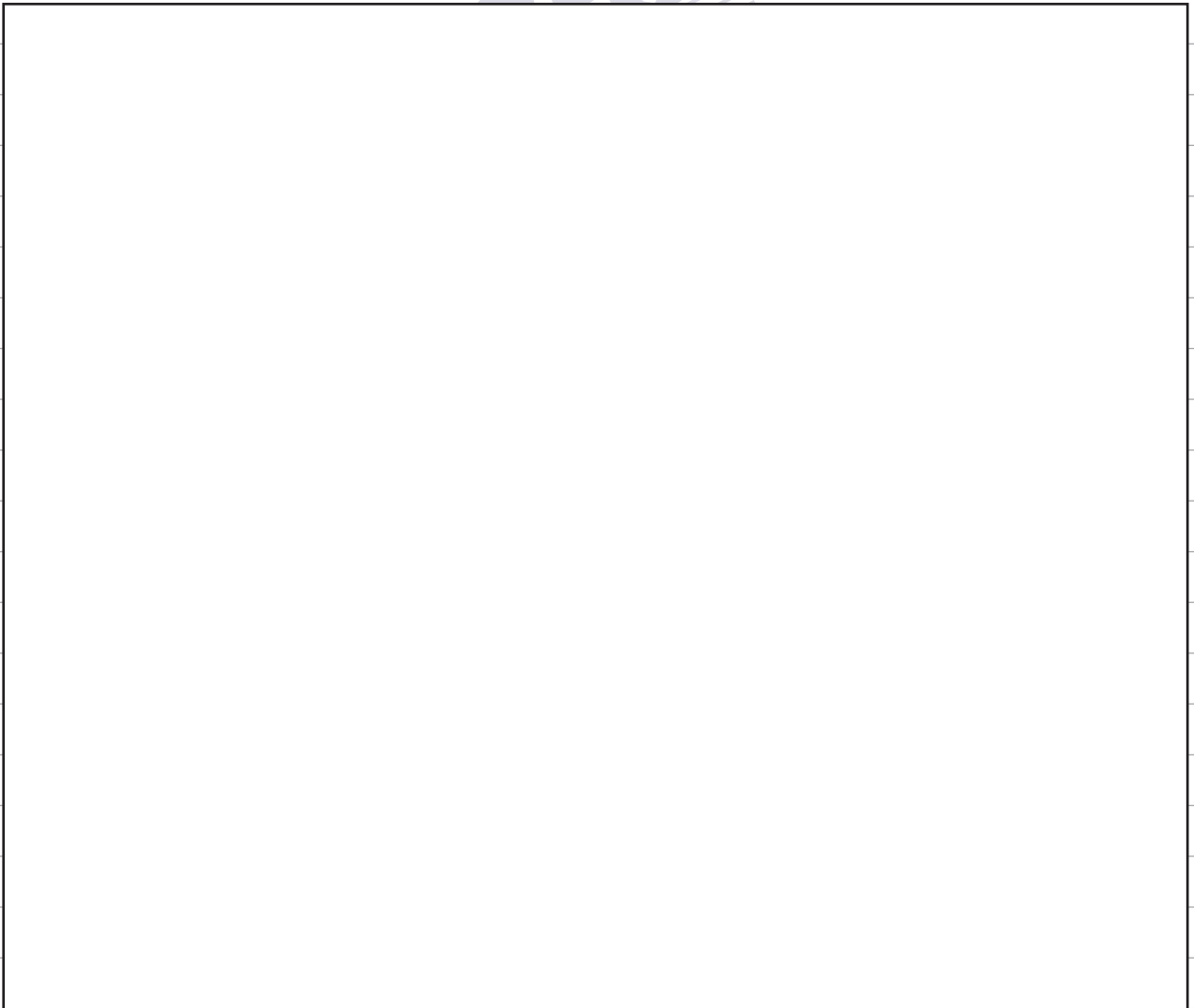Point B denotes break-even point at this point c = y

The ∆OAB Indicates **Dis savings**, however after point B. saving are positive and saving increase with **Increasing Income**.

3. Saving Function.

S = Y – C / S = F(Y)

Table same as consumptions function

Savings is the income left after consumption. Savings function is the counter part of consumption function, i.e. s = y − c

In the above diagram the gap between income and consumption measures the saving. This gap after point B goes on increasing with rising income. This indicates that savings rises with rising income 'S' curve represents saving function. The savings function derives from consumption function. If we draw from breakeven point, B to C. and after joining the point If we further extend the line we derive 'S' curve that is nothing but saving curve.

4. APC, MPC, APS, MPS

Average propensity to consume, Marginal propensity to consume, Avg propensity to save, marginal propensity to Savings.

(1) APC = Consumption		C
Total Income		Y
(2) MPC = Change in consumption		ΔC
Change in Income		ΔY
(3) APS = Savings		S
Total Income		Y
(4) MPS = Change in savings		ΔS
Change in income		ΔY

MPS   = I − MPC   (1 = income)

Or

=   I − b   (Induced consumption)

Income	Consumption	Apc	Mpc	Mps
0	500	-	-	-
1000	1250	1.25	0.75	0.25
2000	2000	1	0.75	0.25
3000	2150	092	0.75	0.25
6000	5000	0.83	0.75	0.25
10,000	8000	0.8	0.75	0.25

APC + APS = 1

C + S = Y

Dividing both sides by Y.

C + S + Y

Y + Y + Y

↓   ↓   ↓

APC + APS = 1

Prove:

MPC + MPC = 1

ΔC + ΔS = ΔY

Dividing both sides by ΔY

ΔC + ΔS + ΔY

ΔY ΔY ΔY

↓   ↓   ↓

MPC + MPS + 1

Marginal Propensity to Consume (MPC)

The consumption function is based on the assumption that there is a constant relationship between consumption and income, as denoted by constant b which is marginal propensity to consume. The concept of MPC describes the relationship between change in consumption (ΔC) and the change in income (ΔY). The value of the increment to consumer expenditure per unit of increment to income is termed the Marginal Propensity to Consume (MPC).

Although the MPC is not necessarily constant for all changes in income (in fact, the

$$APC = \frac{Total\ Consumption}{Total\ Income} = \frac{cc}{YY}$$

The Marginal Propensity to Save (MPS)

The slope of the saving function is the marginal propensity to save. If a one-unit increase in disposable income leads to an increase of b units in consumption, the remainder (1 – b) is the increase in saving. This increment to saving per unit increase in disposable income (1 – b) is called the marginal propensity to save (MPS). In other words, the marginal propensity to save is the increase in saving per unit increase in disposable income.

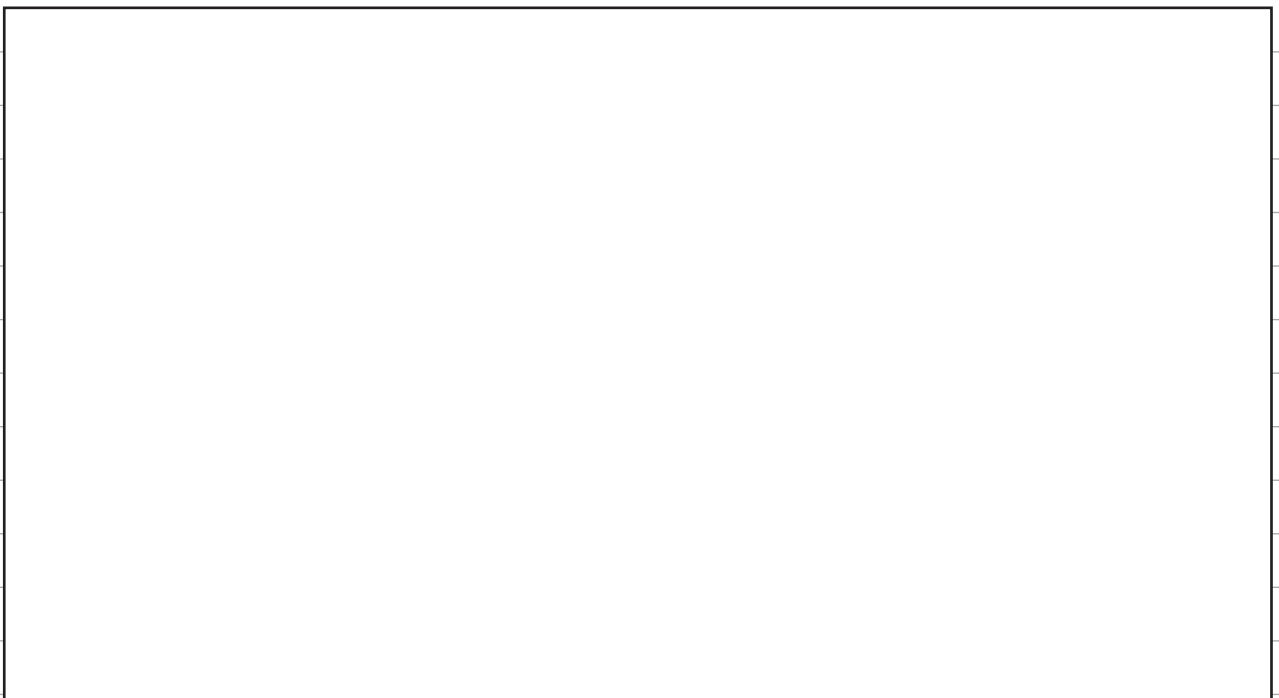$$MPS\ \frac{\Delta S}{\Delta Y} = 1 - b$$

Average Propensity to Save (APS)

The ratio of total saving to total income is called average propensity to save (APS). Alternatively, it is that part of total income which is saved.

$$APS = \frac{\text{Total Saving}}{\text{Total Income}} = \frac{S}{Y}$$

5. **Explain Circular Flow of National Income [3 sector]**

From the above circular chart we can find that government sector Adds following things,

1. Taxes on household & business sector to find government purchase.
2. Transfer payment to household sector & subsidy payment to business sector.
3. Government purchases goods & services from business sector & factor of production from household sector.
4. Government borrowings in banking system to finance the deficit, when tax is fall short of government purchase.

EQUILILIBIRIUM LEVEL OF INCOME: [THREE SECTORS]

Explanation of diagram:

1. The X – axis represents income while the Y – axis represents Aggregate Exp
2. Investment and government expenditures are exogenously determined. Thus, in

Panel B, I and G are shown as horizontal lines. Their level does not depend on income

3. Since I and G are determined outside the model, C + I + G schedule lies above C by constant amount at all level of income.

4. S + T curve denoted the total leakages from household sector. It is positive sice savings vary positively with income. Level of Taxes are decided by Govt

5. Equilibrium is determined at point E1 where C + I + G schedule intersects 450 line. This gives equilibrium level of income at OY1 where Aggregate demand = Income.

6. At E1, S + T = I + G which can be seen in Panel B.

7. At any level of income below OY1, aggregate demand > income and

    I +G > S + T. Conversely, at any level of income above OY1, S+T > I +G

8. In both the above cases, demand and Supply will drive the income back to OY1, through changes in the level of investment, employment and output.

Circular Flow of National Income. [4 Sector]

Introduction:

The circular flow model in four sector economy provides the Realistic picture of circular flow of national income. Four sector model studies the circular flow in open economy which consist of household, business sector, government sector & Foreign sector.

Foreign sector has Important role in the economy when domestic business firm exports goods & services to the foreign market Injection are made to circular flow. On the other ha¬¬nd, domestic household, firms or government Import something from foreign market Leakages occurs in circular model. From the view point of circular flow of Income, each sector has dual role to play in the economy while a sector receives certain payment from other sectors it pays back to those sector as well, circular flow income in different sectors is explained as follows (2 sector explanation to be taken from previous question except conclusion). ®

Government Sectors.

Receipts:

The major source of income for government sector includes taxes paid by household and business sector besides these it also receives Interest and dividend for the investment made.

Payments:

Government sector makes payment to different sectors in the form of transfer payments, subsidies and grants etc. It pays to business sector in return for goods purchased, makes transfer payment like pension fund, scholarship to the household etc.

Government receipts > government expenditure the surplus go to financial market / banking sector. In case of deficit government borrows from capital market / banking to maintain balance in the economy.

Foreign Market:

Receipts:

Foreign sector receives income from business sector in return for goods & services imported by business sector. Income could also be earned through unilateral receipts. E.g. Gifts, grants, donation, charity.

Payments:

Foreign sector needs to make payment to business sector from where Imports have been made. If export > import the economy has surplus balance of payment. Incase import > export the economy faces deficit balance between exports and imports.

Explanation of diagram: 4 sector model

1. The X – axis represents income while the Y – axis represent C + I + G + (X – M).

2. The investment, government expenditure and the net exports are exogenously determined. Hence, in Panel B, I + G + X is shown as horizontal line.

3. Equilibrium level of income is determined at point E* where C + I + G + (X – M) curve intersects the 45^0 line. At this level of national income leakages from the circular flow (S + T +M) are equal to injection (I + G + X).

4. As exports are income and imports are leakages, increase in the level of exports increases the level of national income, while increase in the level of imports, and reduces the national income.

6. Explain in Detail   Investment Multiplier or Income Multiplier

The relationship between increase in investment and increase in income explained in terms of multiplier. The multiplier is important concept of Macroeconomics developed by J.M. Keynes in General theory 1936.

"Multiplier" introduction by R.F. Kahn in 1931. According to him, it was Employment Multiplier.

Keynes redesigned and redefined it in terms of income. Hence the multiplier shows the effect increase in investment on income. So Keynes multiplier is known as Income or Investment Multiplier.

Definition:

"Investment multiplier is the ratio of final changes in income to initial change in Investment".

Arithmetically it is defined as

$$K = \frac{\Delta Y}{\Delta I}$$

$$K = \frac{I}{I - MPC}$$

Thus, if investment increases by 100cr, Income rises by 400cr. Then the multiplier is 4 (i.e.) K = 4times. Hence the multiplier is the number by which change in Investment must be multiplied in order to determine resulting change in total income. The multiplier is determined by tape, higher the MPC, higher the MPC, higher will be the multiplier and vice versa.

Assumptions:

1.   MPC should be constant.

2.   Economy should be closed Economy.

3.   One man's expenditure another man's Income.

Working of Multiplies:

Suppose Government Invested 100cr. In Expansion of Factory.

↓

Income of the Employees 100cr.

↓

MPC taken as constant 75%

$100 \times \dfrac{75}{100} = 75cr. \rightarrow$ [spend on Goods & Services]

↓

Income of producer 75cr.

↓

[MPC constant] $= 75 \times \dfrac{75}{100} = 56.25cr............$

Stages	ΔI	ΔY	ΔC (75% MPC)	ΔS (25% MPS)
1	100	100	75	25
2		75	56.25	18.75
3		56.25	42.18	14.06
4		42.18	31.64	10.55
Total	100	400	300	100
		$\Delta Y = \Delta C + \Delta S$		

$$K = \frac{1}{MPC} = \frac{1}{25\%} = 4 \text{ times}$$

$$K = \frac{\Delta Y}{\Delta I} \cdot 4 = \frac{\Delta Y}{100} \quad \boxed{\Delta Y = 400}$$

YY1, > AE.
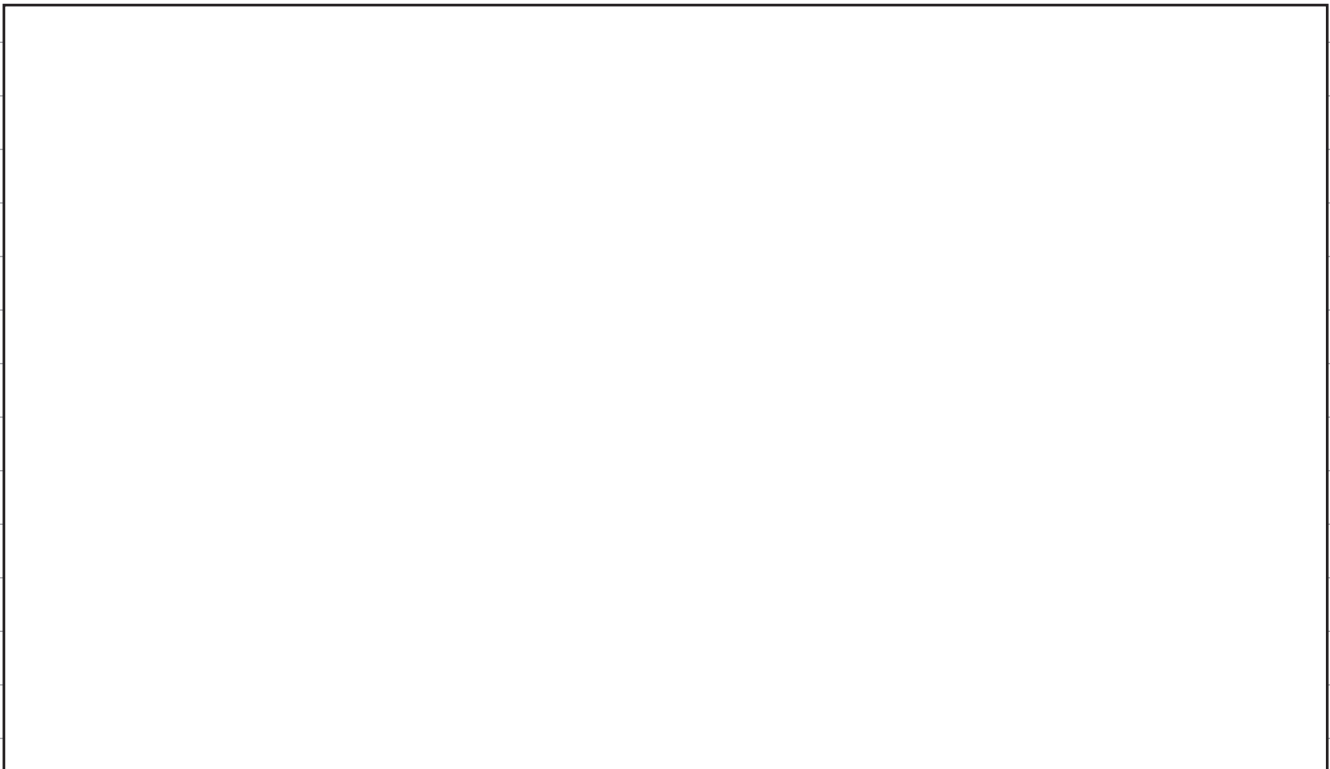
The 'C' curve is consumption curve, it is drawn on Assumption that Mpc is constant at all level of Income. When we super Impose a Fixed Amount of Investment on the consumption curve C, we get total expenditure curve C + I , which Interested 45 line at point E. and original equilibrium level at Income is Y.

When Investment rises total expenditure curve shifts upwards to C + I + I,.

The Increase in Investment ΔI is equal to vertical distance between two expenditure curve i.e. AE.

The new expenditure curve C + I + I, intersects 45º line at E, which gives new equilibrium level of Income Y1, which is Larger than original income Y.

So, from the above diagram we conclude, Increase in Income ΔY is multiple of Increase IN Investment ΔI (i.e.) YY1, > AE.

Leakages in the working of multiplier:

1. Paying off debts.

2. Holding of Idle cash balance.

3. Imports

4. Taxation

5. Increase in price level. (Inflation) $\rightarrow$ Higher the price lower the demand.

6. Purchase of old shares & securities.

7. Explain four sector equilibrium Level of National Income

When Import >Exports.

Effects on Income When Imports are Greater than Exports

When the foreign sector is included in the model (assuming M > X), the aggregate demand schedule C+I+G shifts downward with equilibrium point shifting from F to E. The inclusion of foreign sector (with M > X) causes a reduction in national income from Y0 to Y1. Nevertheless, when X > M, the aggregate demand schedule C+I+G shifts upward causing an increase in national income. Learners may infer diagrammatic expressions for possible changes in equilibrium income for X>M and X =M

A change in autonomous expenditures— for example, a change in investment spending,— will have a direct effect on income and an induced effect on consumption with a further effect on income. The higher the value of v, larger the proportion of this induced effect on demand for foreign, not domestic, consumer goods. Consequently, the induced effect on demand for domestic goods and, hence on domestic income will be smaller. The increase

in imports per unit of income constitutes an additional leakage from the circular flow of (domestic) income at each round of the multiplier process and reduces the value of the autonomous expenditure multiplier.

An increase in demand for exports of a country is an increase in aggregate demand for domestically produced output and will increase equilibrium income just as an increase in government spending or an autonomous increase in investment. In summary, an increase in the demand for a country's exports has an expansionary effect on equilibrium income, whereas an autonomous increase in imports has a contractionary effect on equilibrium income. However, this should not be interpreted to mean that exports are good and imports harmful in their economic effects.

INFLATIONARY GAP

- ❖ If the aggregate demand for an output is greater than full employment level of output, then it leads to excess demand.
- ❖ Excess demand gives rise to inflationary situation or inflationary gap.
- ❖ This situation of occurs during expansion phase of business cycle which leads to demand pull inflation.
- ❖ Inflationary gap which is the amount by which aggregate demand exceeds the level of aggregate demand required to establish full employment equilibrium.

Excess Demand – Inflationary Gap
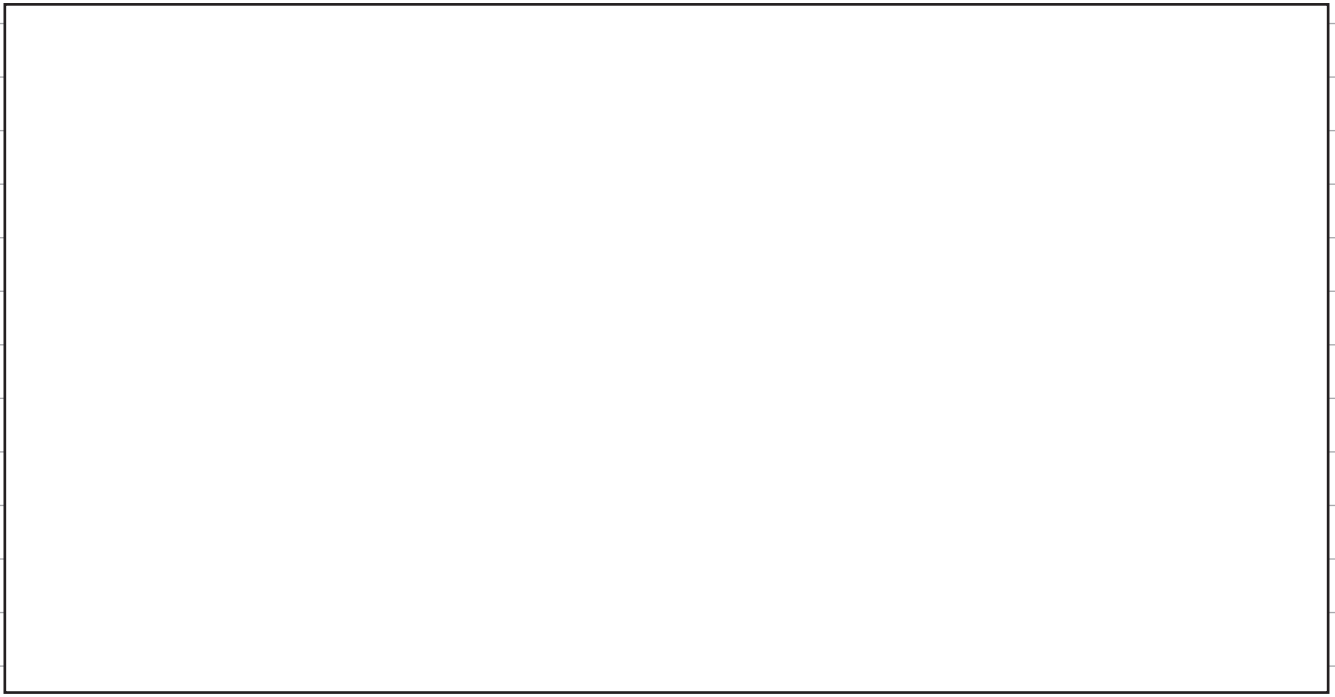
DEFLATIONARY GAP

❖ If the aggregate demand for an output is less than the full employment level of output then it is called deficient demand.

❖ Deficient demand gives rise to deflationary gap or recessionary gap.

❖ It happens when equilibrium level of aggregate production is less than full employment.

❖ Deflationary gap is thus a measure of extent of deficiency of aggregate demand and it leads to decline in income output & employment thus pushing economy into unemployment

Deficient Demand – Deflationary Gap

The leakages are caused due to:

1. progressive rates of taxation which result in no appreciable increase in consumption despite increase in income

2. high liquidity preference and idle saving or holding of cash balances and an equivalent fall in marginal propensity to consume

3. increased demand for consumer goods being met out of the existing stocks or through imports

4. additional income spent on purchasing existing wealth or purchase of government securities and shares from shareholders or bondholders

5. undistributed profits of corporations

6. part of increment in income used for payment of debts

7. case of full employment additional investment will only lead to inflation, and

8. scarcity of goods and services despite having high MPC

NUMERICAL SUMS

Question 1

Calculate marginal propensity to consume and marginal propensity to save from the following data about an economy which is in equilibrium:

National income = 2500, Autonomous consumption expenditure = 300, Investment expenditure = 100

Answer

Y   = C + I

By putting the value we get,

2500 = C + 100

C   = 2500 −100 = 2400

C   = $\overline{C}$ + bY

2400 = 300 + 2500 b

2400−300 =   2500b

b = 0.84; MPS = 1− MPC = 1− 0.84 = 0.16

Question 2

An economy is in equilibrium. Calculate national income from the following-

Autonomous consumption = 100; Marginal propensity to save= 0.2; Investment expenditure = 200

Answer

Y   = C + I

Y   = $\overline{C}$ + MPC (Y) + I   where MPC = 1− MPS

Y   = 100 + 0.8Y + 200 = 300 + 0.8Y

Y − 0.8Y = 300

0.2Y   = 300,

Y   = 1500

Question 3

Suppose the consumption of an economy is given by C = 20 + 0.6 Y and investment I = 10 + 0.2Y. What will be the equilibrium level of National Income?

Answer

Y   = C + I = 20 + 0.6 Y + 10 + 0.2 Y

Y   = 30 + 0.8 Y

Y − 0.8 Y = 30

Y   = 150

Question 4

Suppose the consumption function C= 7+ 0.5Y, Investment is ₹ 100, Find out equilibrium level of Income, consumption and saving?

Answer

Equilibrium Condition–

Y = C + I, Given C = 7 + 0.5Y and I = 100

Therefore Y = 7 + 0.5Y + 100

Y – 0.5Y = 107

Y = $\dfrac{107}{0.5}$ = 214

Y = C + I

214 = C + 100

C = 114

S = Y − C = 100

Question 5

If the consumption function is C= 250 + 0.80 Y and I = 300. Find out equilibrium level of Y, C and S?

Answer

Y = $\dfrac{1}{1-b}(a + \bar{I})$ or Y = C + I

Y = $\dfrac{1}{1-.80}(250 + 300) = 2750$

C = $a + \dfrac{b}{1-b}(a + \bar{I})$ or C = 250 + 0.80 Y

C = 250 + 0.8(2750) C = 2450

S = Y – C where C = a + bY

S = Y – (a + bY)

S = –a + (1 – b) Y

 = – 250 + (1 − 0.80)2750 = 300

Or directly,

S = Y – C

S = 2750 − 2450 = 300.

Question 6

If saving function S = –10 + 0.2Y and autonomous investment I = 50 Crores. Find out the equilibrium level of income, consumption and if investment increases permanently by ₹5 Crores, what will be the new level of income and consumption?

Answer

S = I

–10 + 0.2Y = 50

0.2Y   = 50+ 10

Y   = 300 Crores

C   = Y– S

Where   S = –10 + 0.2 (300) = 50

          C = 300–50 = 250 Crores

With the increase in investment by ₹ 5 Crores, the new investment will become equal to ₹ 55 Crores.

S = I

–10 + 0.2Y = 55

Y   = 325 Crores

C   = 270 Crores

Question 7

Given the empirical consumption function C = 100 +0.75Y and I = 1000, calculate equilibrium level of national income. What would be the consumption expenditure at equilibrium level national income?

Answer

C = 100 + 0.75Y and I = 1000,

Y = C + I in equilibrium

$Y = 100 + 0.75 Y + 1000 \Rightarrow Y = \dfrac{I}{1 - 0.75} (100 + 1000)$

$Y = \dfrac{I}{1 - 0.75} (1100) = 1/0.25 (1100) = 4400.$

Y = C + I;

C = 4400 – 1000

   = 3400

Question 8

In an economy investment expenditure is increased by ₹ 400 Crores and marginal propensity to consume is 0.8. Calculate the total increase in income and saving.

Answer

MPC = 0.8; ΔI = 400 Crores

Multiplier (K) = 1 /1– MPC = 1 /1– 0.8 =1/ 0.2= 5

MPS = 1 – MPC = 1 − 0.8 = 0.2

Increase in income (ΔY) = K ×ΔI = 5 × 400 = 2,000 Crores

Increase in saving = ΔY × MPS = 2,000 × 0.2 = 400 Crores

Question 9

An increase in investment by 400 Crores leads to increase in national income by 1,600 Crores. Calculate marginal propensity to consume.

Answer

Increase in investment (ΔI) = 400 Crores

Increase in national income (ΔY) = 1,600 Crores

Multiplier (K) =ΔY/ΔI = K = 1,600/400 = 4

We know,

K = 1 /1 −MPC

4 = 1 /1 -MPC

$\Rightarrow$ MPC = 0.75

Question 10

In an economy, investment is increased by Rs 600 Crores. If the marginal propensity to consume is 0.6, calculate the total increase in income and consumption expenditure.

Answer

MPC = 0.6; ΔI = ₹ 600 Crores

Multiplier (K)

= 1/ 1– MPC = 1/ 1 − 0.6 = 1/ 0.4 =25.

Increase in income (ΔY)

= K × ΔI = 2.5 × Rs 600 Crores = ₹ 1,500 Crores

Increase in consumption (ΔC)

= ΔY × MPC = Rs 1, 500Crores × 0.6 = ₹ 900 Crores.

Question 11

Suppose in a country investment increases by ₹ 100 Crores and consumption is given by C = 10 + 0.6Y (where C = consumption and Y = income). How much increases will there take place in income?

Answer

Multiplier

$$k = \frac{I}{1 - MPC},$$

$$k = \frac{I}{1 - 0.6} = 2.5$$

Substituting the value of k and ΔI value in $\Delta Y = k \, \Delta I$

$\Delta Y = 2.5 \times 100 = ₹ 250$ Crores

Thus, increase in investment by Rs 100 Crores will cause equilibrium income to rise by ₹ 250 Crores.

Question 12

Suppose we have the following data about a simple economy:

C = 10 + 0.75Y_d, I = 50, G = T = 20 where C is consumption, I is investment, Y_d is disposable income, G is government expenditure and T is tax.

(a)   Find out the equilibrium level of national income.

(b)   What is the size of the multiplier?

Answer

(a)   Since G = T, budget of the government is balanced

Substituting the values of C, I and G in Y we have

Y   = C + I + G

Y   = a + bY_d + I + G

Y   = 10 + 0.75 (Y − 20) + 50 + 20

Y   = 10 + 0.75 Y − 15 + 50 + 20

or,   Y − 0.75 Y = 65

or,   Y (1 − 0.75) = 65

or,   0.25 Y = 65

or,   Y = 65 /.25 = 260

The equilibrium value of Y = 260

(b)   The value of the multiplier is = $1/(1 - MPC) = 1/(1 - b) = 1/(1 - 0.75) = 1/0.25 = 4$

(ii)   Income Determination with Lump Sum Tax and Transfer payments

The consumption function is defined as –

$C = a + b Y_d$

Where $Y_d = Y - T + TR$ where T is a lump sum tax and TR is autonomous transfer payments

$C = a + b (Y - T + TR)$

$Y = C + I + G$

$Y = a + b (Y - T + TR) + I + G$

$Y = a + bY - bT + bTR + I + G$

$Y - bY = a - bT + bTR + I + G$

$Y(1-b) = a - bT + bTR + I + G$

$Y = \dfrac{1}{1 - b} (a - bT + bTR + I + G)$

Question 13

Suppose $C = 100 + 0.80 (Y - T + TR)$; $I = 200$; $T = 25 + 0.1Y$; $TR = 50$; $G = 100$

Find out equilibrium level of Income?

Answer

$Y = C + I + G$

$Y = 100 + 0.80 (Y - T + TR) + I + G$

$Y = 100 + 0.80(Y - 25 - 0.1Y + 50) + 200 + 100$

$Y - 0.80 Y + 0.08 Y = 420$

$Y(1 - 0.8 + 0.08) = 420$

$Y = 1500$

Question 14

An economy is characterised by the following equation-

Consumption	$C = 60 + 0.9Y_d$
Investment	$I = 10$
Government expenditure	$G = 10$
Tax	$T = 0$
Exports	$X = 20$
Imports	$M = 10 + 0.05 Y$

What is the equilibrium income?

Calculate trade balance and foreign trade multiplier.

Answer

Y   = C + I + G + (X − M)

      = 60 + 0.9(Y − 0) + 10 + 10 + (20− 10 −0.05Y)

      = 60 + 0.9 Y + 30 −0.05 Y

Y   = 600

Trade Balance = X − M = 20 − 10 − 0.05(600) = −20

Thus, trade balance in deficit.

Foreign trade multiplier = $\dfrac{1}{1 - b + m}$ = $\dfrac{1}{1- 0.9 + 0.05}$ = 6.66

MODULE MULTIPLE CHOICE QUESTIONS

1. In the Keynesian model, equilibrium aggregate output is determined by
   - (a) aggregate demand
   - (b) consumption function
   - (c) the national demand for labor
   - (d) the price level

2. Keynes believed that an economy may attain equilibrium level of output
   - (a) only at the full-employment level of output
   - (b) below the full-employment level of output
   - (c) only if prices were inflexible
   - (d) (a) and (c) above

3. According to Keynes, consumption expenditure is determined by
   - (a) the level of interest rates
   - (b) extent of government taxes and subsidies
   - (c) disposable income
   - (d) autonomous investment expenditure

4. The marginal propensity to consume (MPC) can be defined as
   - (a) a change in spending due to a change in income
   - (b) a change in income that is saved after consumption
   - (c) part of income that is spent on consumption.
   - (d) part of income that is not saved.

5. If the consumption function is expressed as C = a + bY then b represents
   - (a) autonomous consumer expenditure when income is zero
   - (b) the marginal propensity to consume.
   - (c) the expenditure multiplier when consumption is increased
   - (d) part of disposable income

6. If the consumption function is expressed as C = a + bY then a represents
   - (a) autonomous consumer expenditure.
   - (b) the marginal propensity to consume.
   - (c) the consumption income relationship
   - (d) Non- linear consumption function

7. If the consumption function is C = 20 + 0.5Yd, then an increase in disposable income by ₹ 100 will result in an increase in consumer expenditure by ₹_____.
    (a) 25   (b) 70
    (c) 50   (d) 100

8. If the autonomous consumption equals ₹ 2,000 and the marginal propensity to consume equals 0.8. If disposable income equals ₹ 10,000, then total consumption will be ₹ _____
    (a) 8,000   (b) 6,000
    (c) 10,000   (d) None of the above

9. In the Keynesian cross diagram, the point at which the aggregate demand function crosses the 45-degree line indicates the
    (a) level of full employment income.
    (b) less than full employment level of income.
    (c) equilibrium level of income which may or may not be full employment level of income
    (d) autonomous level of income which may not be full employment level of income

10. In a closed economy, aggregate demand is the sum of
    (a) consumer expenditure, demand for exports and government spending.
    (b) consumer expenditure, planned investment spending and government spending.
    (c) consumer expenditure, actual investment spending, government spending and net exports.
    (d) consumer expenditure, planned investment spending, government spending, and net exports.

11. Under equation C= a+by, b=0.8, what is the value of 2 sector expenditure multiplier?
    (a) 4   (b) 2   (c) 5   (d) 1

12. _____ means the actual income, which can be spent on consumption by individuals and families.
    (a) Personal Disposable Income   (b) Net National Income
    (c) Gross National Income   (d) Per Capita Income

13. The formula to derive NNP at Factor costs:
    (a) NNP at Market Prices+ Subsidies
    (b) NNP at Market Prices – Indirect taxes •Subsidies
    (c) NNP at Market Prices + Indirect taxes+ Subsidies
    (d) NNP at Market Prices – Indirect taxes + Subsidies

14. _____ is a index of price changes or goods and services Included In GOP.
    (a) GOP Inflator   (b) GOP deflator
    (c) GDP accelerator   (d) GOP decelerator

15. The term National Income represents
    (a) Gross National Product (GNP) at market price minus depreciation
    (b) Gross National Product (GNP) at market price minus depreciation plus net factor income abroad
    (c) Gross national Product (GNP) market price minus depreciation and indirect taxes plus subsidies
    (d) Gross National Product (GNP) at market prices minus net factor income from abroad

16. Which of the following is not included in the estimates of National Income?
    (a) Sale of collector's item
    (b) Addition to inventory, but not sale of the company's products
    (c) Market rent of self-owned house
    (d) Cost of government services

17. Which one of the following the most appropriate method to measure the economic growth of a country?
    (a) National Income
    (b) Net National Product
    (c) Gross Capital formation
    (d) Gross Domestic Product

18. National income is often estimated
    (a) NDPFC   (b) NNPMP
    (c) NDPMP   (d) NNPFC

19. Which of the following is not correct?

    (a) NNP at market Price = GN at market price + Depreciation at

    (b) NDP at Market Price = NNP at market price – Net factor from abroad income

    (c) NDP at Factor Cost = NOP at market price – indirect taxes+ Subsidies

    (d) GOP a t Facto r Cost= NOP at actor cost + Depreciation

20. Which one leads to factor cost?

    (a) Market price – Indirect taxes

    (b) Market price – Net Indirect taxes

    (c) Market price + Indirect taxes

    (d) Market price + Net Indirect taxes

21. Which one includes deprecation.

    (a) GNP at market price   (b) NNP at market price

    (c) NNP at factor cost   (d) None of these

22. The difference between national and domestic income is that of:

    (a) Net indirect taxes   (b) Net factor income from abroad

    (c) Consumption of fixed capital (d) Both (a) and (b)

23. National income (NNPFC) is equal to:

    (a) GNPFC + Depreciation   (b) GNP FC – Depreciation

    (c) NNPMP – Net indirect taxes   (d) Both (b) and (c)

24. Remittances from a relative working abroad are:

    (a) Included in national income

    (b) Not included in national income

    (c) Transfer payments

    (d) Both (b) and (c)

25. Value added refers to:

    (a) Production of durable goods

    (b) Output – intermediate consumption

    (c) Production of non – durable goods

    (d) Expenditure on intermediate goods

26. Which of the following is not a transfer payment?
    (a) Interest on national debt
    (b) Retirement pensions
    (c) Old-age pensions
    (d) Donations

27. Difference between closing stock and opening stock during an accounting year is known as:
    (a) Increase in stock
    (b) Change in stock
    (c) Decrease in stock
    (d) None of these

28. Compensation of employees Include:
    (a) Wages and salaries in cash
    (b) Wages and salaries in kind
    (c) Pension on retirement
    (d) All of these

29. Which or the following is not a part of final expenditure?
    (a) Consumer goods purchased by the government
    (b) Consumer goods exported too rest to of the world

19. National Income term can be interchangeably used with:
    (a) National Dividend
    (b) National output
    (c) National Expenditure
    (d) All of the above

30. National income includes factor incomes only.
    (a) True
    (b) False
    (c) Partially true
    (d) Can't say

31. Factor income is also called as:
    (a) Earned income
    (b) Unearned income
    (c) Gift income
    (d) Substitute income

32. Transfer income is also called as:
    (a) Earned income
    (b) Unearned income
    (c) Gift income
    (d) Substitute income

33. The only difference between GDP and NDP is:
    (a) Interest
    (b) Wages
    (c) Depreciation
    (d) Profit

34. Two sector economy does not consists of:
    (a) Producer sector   (b) Household sector
    (c) Government Sector   (d) Both a & b

35. GDPFC stands for:
    (a) gross domestic product at market price
    (b) gross domestic product at factor cost
    (c) net domestic product at market price
    (d) net national product at market price

36. NDPFC stands for:
    (a) gross domestic product at market price (b) gross domestic product at factor cost
    (c) net domestic product at market price   (d) net national product at market price

37. Nominal GOP is the GDP at:
    (a) Current Prices   (b) Constant Prices
    (c) Base Year Prices   (d) (d)' Both b & c

38. Real GOP is the GDP at:
    (a) Current Prices   (b) Constant Prices
    (c) Base Year Prices   (d) Both b & c

39. Higher Nominal GDP implies improvement in quality of life
    (a) True   (b) False
    (c) Partially true   (d) Cant say

40. Nominal GDP can be converted into real GDP using:
    (a) Price index   (b) Trade index
    (c) Forex index   (d) Either a or b

41. GDP Deflator is:
    (a) ratio between GDP at current prices and GDP at constant prices
    (b) GDP at current prices + GDP at constant prices x 100
    (c) change in GDP due to change in price level
    (d) all of the above

42. Product method of calculation of GDP is also called as:
    (a) Value added method
    (b) Industrial origin method
    (c) Net output method
    (d) All of the above

43. Value of the sale and purchase of second – hand goods is accounted for the purpose of calculating national income under – Valued added method:
    (a) True   (b) False
    (c) Partially true   (d) Cant say

44. When producers buy final goods, there is consumption expenditure
    (a) True   (b) False
    (c) Partially   (d) Can't say

45. Income method is also called as:
    (a) Final output method   (b) Distributed share method
    (c) Factor payment method   (d) Both b & c

46. Compensation to the employees can be classified as:
    (a) Salary in cash   (b) Perquisites
    (c) Employer's contribution to social security
    (d) All of the above

47. Operating surplus includes:
    (a) Compensation to employees   (b) Rent
    (c) Interest   (d) Both b & c

48. Profit can be classified as:
    (a) Dividend   (b) Direct tax
    (c) Rent   (d) Both a & b

49. Retirement pensions are to be included in national income.
    (a) True   (b) False
    (c) Partially true   (d) Cant say

50. Estimation or expenditure on the final goods produced during the year within the domestic territory of a country, is equal to:

    (a) GDPMP
    (b) GDPFC
    (c) NDPMP
    (d) NDPFC

51. Which of the following is the fixed investment?

    (a) Plant purchased for production
    (b) Expenditure for construction or residential home
    (c) Expenditure on rework of road by government
    (d) All of the above

52. While calculating national income, expenditure on shares and bonds is to be included in total expenditure.

    (a) True
    (b) False
    (c) Partially
    (d) Cant say

53. Expenses on Electricity by a Factory is not included in national income since

    (a) It does nor form part of the cost of the product
    (b) II is indirect expense
    (c) II is intermediate expense
    (d) All of the above

54. While arriving at private income from NNP at Factor Cost, which of the following items are added?

    (a) Transfer Payments
    (b) Interest on Public Debt
    (c) Social Security payments
    (d) Both a & b

55. The formula for per capita income is:

    (a) $\dfrac{\text{National Income}}{\text{Population}}$
    (b) $\dfrac{\text{Real National Income}}{\text{Population}}$
    (c) $\dfrac{\text{Personal Income}}{\text{Population}}$
    (d) $\dfrac{\text{Private Income}}{\text{Population}}$

ANSWERS:

1	(a)	2	(b)	3	(c)	4	(a)	5	(b)	6	(a)
7	(c)	8	(c)	9	(c)	10	(b)	11	(c)	12	
13		14		15		16		17		18	
19		20		21		22		23		24	
25		26		27		28		29		30	
31		32		33		34		35		36	
37		38		39		40		41		42	
43		44		45		46		47		48	
49		50		51		52		53		54	
55											

SUMMARY

- John Maynard Keynes in his masterpiece 'The General Theory of Employment Interest and Money' published in 1936 put forth a comprehensive theory to explain the determination of equilibrium aggregate income and output in an economy.

- The equilibrium analysis is best understood with a hypothetical simple two-sector economy which has only households and firms with all prices (including factor prices), supply of capital and technology constant; the total income produced Y, accrues to the households and equals their disposable personal income.

- The equilibrium output occurs when the desired amount of output demanded by all the agents in the economy exactly equals the amount produced in a given time period.

- In the two-sector economy aggregate demand (AD) or aggregate expenditure consists of only two components: aggregate demand for consumer goods and aggregate demand for investment goods, I being determined exogenously and constant in the short run.

- Consumption function expresses the functional relationship between aggregate consumption expenditure and aggregate disposable income, expressed as $C = f(Y)$. The specific form consumption function, proposed by Keynes $C = a + bY$

- The value of the increment to consumer expenditure per unit of increment to income (b) is termed the Marginal Propensity to Consume (MPC).

- The Keynesian assumption is that consumption increases with an increase in disposable income (b > 0), but that the increase in consumption will be less than the increase in disposable income (b < 1).

- The propensity to consume refers to the proportion of the total and the marginal incomes which people spend on consumer goods and services.

➢ The proportion or fraction of the total income consumed is called 'average propensity to consume' (APC)= Total Consumption /Total Income

➢ Since Y = C + S, consumption and saving functions are counterparts of each other. The condition for national income equilibrium can thus be expressed as C + I = C + S

➢ Changes in income are primarily from changes in the autonomous components of aggregate demand, especially from changes in the unstable investment component.

➢ The investment multiplier k is defined as the ratio of change in national income (ΔY) due to change in investment (ΔI)

➢ The marginal propensity to consume (MPC) is the determinant of the value of the multiplier. The higher the marginal propensity to consume (MPC) the greater is the value of the multiplier.

➢ The more powerful the leakages are, the smaller will be the value of multiplier.

➢ Aggregate demand in the three sector model of closed economy (neglecting foreign trade) consists of three components namely, household consumption(C), desired business investment demand(I) and the government sector's demand for goods and services(G).

➢ The government sector imposes taxes on households and business sector,effects transfer payments to household sector and subsidy payments to the business sector, purchases goods and services and borrow from financial markets.

➢ In equilibrium, it is also true that the (S + T) schedule intersects the (I + G) horizontal schedule.

➢ Taxes act as leakage from the economic system. Thus, tax multiplier when,
T = $\bar{T}$ -tY, is

$$\frac{1}{1-b(1-t)} < \frac{1}{1-b}$$

➢ The four sector model includes all four macroeconomic sectors, the household sector, the business sector, the government sector, and the foreign sector and in equilibrium, we have Y = C + I + G + (X–M)

➢ The domestic economy trades goods with the foreign sector through exports and imports.

➢ Imports are subtracted from exports to derive net exports, which is the foreign sector's contribution to aggregate expenditures. If net exports are positive (X > M), there is net injection and national income increases. Conversely, if X < M, there is net withdrawal and national income decreases.

➢ The autonomous expenditure multiplier in a four sector model includes the effects of foreign transactions and is stated as $\dfrac{1}{(1-b+m)}$ against $\dfrac{1}{(1-b)}$ in a closed economy.

➢ The greater the value of m, the lower will be the autonomous expenditure multiplier.

➢ An increase in the demand for exports of a country is an increase in aggregate demand for domestically produced output and will increase equilibrium income just as would an increase in government spending or an autonomous increase in investment.

NUMERICAL SUMS

Q.1 Computation of national Income:

Consumption	= 750.00
Investment	= 250.00
Gov. Purchase	= 100.00
Export	= 100.00
Import	= 200.00

Q.2 Calculate GDPMP & National Income.

Personal consumption Expenditure	6,500.00
Indirect taxes – subsidies	150.00
State Gov. Consumption & investment exp.	2,000.00
Central Gov. Consumption & investment exp.	500.00
Change in inventory	100.00
Gross private domestic fixed investment	1,200.00
Exports	900.00
Net factor payment to abroad	(–) 100.00
Imports	1,200.00
Depreciation	200.00

Q3. Calculate GDPMP & National Income

Inventory Investment	100.00
Indirect taxes	100.00
Export	200.00
Net factor Income from abroad	– (50).00
Personal consumption expenditure	3,500.00
Gross residential construction investment	300.00
Depreciation	50.00
Imports	100.00
Stock Gov. purchased goods & services	1,000.00
Gross public investment	200.00
Gross business fixed investment	300.00

Q.4   Calculation national Income & personal Disposable Income.

GDP$_{MP}$	6,000.00
Receipts of factor income from abroad	150.00
Depreciation	800.00
Indirect taxes	700.00
Payment of factory income from abroad	225.00
Corporates profits	1,200.00
Dividend	600.00
Transfer payment	1,300.00
Personal Income Tax	1,500.00

Q.5   Calculate GNP$_{MP}$ by using value method.

Value of output in primary sector	500.00
NFIA	(–) 20.00
Value of output in Tertiary	700.00
Value of output in secondary sector .	900.00
Govt. transfer payments	600.00
Intermediate consumption in tertiary	300.00
Intermediate consumption in primary sector	250.00
Intermediate consumption in secondary sector	300.00

Q.6. Illustration: Relationship between National Income Measures.

From the following data, calculate Personal Income and Disposable Income. Rs. Crores

(a) Net Domestic Product at Factor Cost	(e) Interest Received by Households
8,000	1,500
(b)Net Factor Income from Abroad	(f) Interest Paid by Households
200	1,500
(c) Undisbursed Profit	(g) Transfer Income
1,000	300
(d) Corporate Tax 500	(h) Personal Tax
	500

Q.7 Illustration: Consumption Function

Assume that an Economy's Consumption Function is specified by the equation C = 6,000 + 0.75Y. Answer the following −

(a) What will be the Consumption when Disposable Income (Y) is Rs. 20,000, Rs. 25,000 and Rs. 30,000?

(b) Find the saving when disposable Income is Rs. 20,000, Rs. 25,000 and Rs. 30,000.

(c) What amount of Consumption for Consumption Function C is autonomous?

(d) What amount is induced when Disposable Income is Rs. 20,000, Rs. 25,000 and Rs. 30,000?

Q8. Illustration: Consumption Function

Consider the following information and frame the Consumption Function. Also compute Income (Y), when the amount of consumption is Rs. 36,000.

➢ Autonomous Consumption even at Zero Level of Disposable Income = Rs. 9,000

➢ Marginal Propensity to save = 0.40

Q9. On the basis of the following data about an economy which consists of only two Firms, find out:

(a) Value Added by firm A and B and

(b) Gross Value Added or Gross Domestic Product at Factor Cost.

	Items	(₹ in Lakh)
(i)	Sales by firm A	100
(i)	Purchases from firm B by firm A	40
(ii)	Purchases from firm A by firm B	60
(iii)	Purchases from firm A by firm B	60
(Iv)	Sales by firm B	200
(v)	Closing stock from A	20
(vi)	Closing stock from B	35
(vii)	Opening stock of firm A	25
(viii)	Opening stock of firm B	45
(ix)	Indirect taxes paid by both firms	30

Q.10 Calculate:

    (a)   Gross Value Added at Market Price, and

    (b)   National Income from the following data.

Items	(₹in lakhs)
(i) Value of output:	
(a) Primary sector	800
(b) Secondary sector	200
(c) Tertiary sector	300
(ii) Value of intermediate inputs purchased by:	
(a) Primary sector	400
(b) Secondary sector	100
(c) Tertiary sector	50
(iii) Indirect taxes paid by all sectors	50
(iv) Consumption of fixed capital of all sectors	80
(v) Factor income received by the residents from rest of the world	10
(vi) Factor income paid to non-residents	20
(vii) Subsidies received by all sectors	20

Q.11.Given the following data and using income method calculate:

(a)   Net Domestic Income,   (b)   Gross Domestic Income,

(c)   Net National Income, and   (d)   Net National Product at market Price.

Items	(₹ in crore)
(i) Indirect taxes	9,000
(ii) Subsidies	1,800
(iii) Depreciation	1,700
(iv) Mixed income of self – employed	28,000
(v) Operating Surplus	10,000
(vi) Net factor income from abroad	(–) 300
(vii) Compensation of employees	24,000

Q.12. From the following data, calculate the GDP at both (a) market price, and (b) Factor cost.

Items	(₹ in crore)
(i) Gross Investment	90
(ii) Net exports	10
(iii) Net indirect taxes	5
(iv) Depreciation	15
(v) Net factor income from abroad	(–) 5
(vi) Private consumption expenditure	350
(vii) Government purchases of goods and services	100

Q.13. Calculate GDP$_{MP}$, GDP$_{FC}$ & National Income

Private final consumption expenditure	290.00
Gov. Final consumption expenditure	50.00
Subsidies	20.00
Gross Domestic fixed capital formation	105.00
Indirect Tax	70.00
Consumption of fixed capital	45.00
NFIA	(–) 5.00
Net addition to stock	15.00
Net exports	–5.00

Q14. Calculate NDPMP & National Income

Subsidies	10.00
Sales	1,000.00
Closing stock	100.00
Indirect tax	50.00
Intermediate consumption	300.00
Opening Stock	200.00
Consumption of fixed capital	150.00
NFIA	10.00

Q.15. Illustration – Estimation of National Income by Value Addition

Suppose only the following transactions take place in an economy:

➢ Industry A imports goods worth Rs. 100. It sells goods worth Rs. 400 to Industry B, goods worth Rs. 200 to Industry C, and goods worth Rs. 1,000 for Private Consumption.

➢ Industry B sells goods worth Rs. 500 to Industry C and goods worth Rs. 800 for Private Consumption.

➢ Industry C sell goods worth Rs. 600 to Private Consumption and Export goods valued at Rs. 500.

➢ Depreciation Coast during the year is Rs. 100,

➢ Government realizes Indirect taxes of the valued of Rs. 100. Subsidies paid by Government is Rs. 50.

Calculate the following with the help of Net Value Added Method: (a) GNP (MP) (b) GNP (FC) (c) NNP (MP) and (d) NNP (FC)

Q16. Illustration: Relationship between National Income Measures

GDP at Market Prices of a country in a particular year was Rs. 1,100 Crores. Net Factor Income from Abroad was Rs. 100 Crores. The value of Indirect Taxes – Subsidies was Rs. 150 Crores. NNPfc ₹850 Cr. Calculate the aggregate value of Depreciation.

Q17. An economy has only two firms A and B. on the basis of following information about these firms, find out:

(a) Value Added by firms A and B, and

(b) Gross Domestic Product at Market Price.

	Items	(₹ in Lakh)
(i)	Exports by firm A	20
(i)	Imports by firm A	50
(ii)	Sales to households by firm A	90
(iii)	Sales to firm B by firm A	40
(Iv)	Sales to firm A by firm B	30
(v)	Sales to households by firm B	60

Q.18. Calculate Net Domestic Product at Factor Cost from the following data using product method.

Items	Primary Sector	Secondary Sector	Tertiary Sector
(i) Sales	100	150	130
(ii) Closing stock	15	20	25
(iii) Intermediate Consumption	15	25	15
(iv) Opening stock	10	10	15
(v) Indirect tax	12	13	17
(vi) Subsidies	7	8	7
(vii) Consumption of fixed capital	10	12	15
(viii) Expenses of electricity and fuel	3	4	3

Q.19. The Following information is available for an economy. On the basis of this Information using income method, calculate: (a) Domestic Income, and (b) National income

Items	(₹ in crore)
(i) Wages	10,000
(ii) Rent	5,000
(iii) Interest	400
(iv) Dividend	3,000
(v) Mixed Income	400
(vi) Undistributed profit	200
(vii) Social security contribution	400
(viii) Corporate Profit Tax	400
(ix) Net Factor Income from abroad	1,000

Q20. Find NDPFC from the following

Items	(₹ in crore)
(i) Gross domestic fixed investment	10,000

(ii)	Inventory investment	5,000
(iii)	Depreciation	2,000
(iv)	Indirect taxes	1000
(v)	Subsidies	2000
(vi)	Consumption expenditure	20,000

NUMERICAL SUMS

Q.1

Solution:

Consumption	=	750.00
+ Investment	=	250.00
+ Gov. Purchase	=	100.00
+(X – M) 100 – 200	=	(100.00)
NNP_{fc}		**1,000.00**

Q.2

Solution:

Personal consumption Expenditure	6,500.00
State Gov. Consumption & invest. Exp.	2,000.00
Central Gov. Consumption & invest. Exp.	500.00
Change in inventory	100.00
Gross private domestic fixed investment	1,200.00
(Import– Export (1,200.00 – 900.00)	300.00
GDP_{MP}	10,000.00

National Income.

Personal consumption Exp.	6,500.00
Indirect taxes – subsidies	(150).00
State Gov. Consumption & investment	2,000.00
Central Gov. Consumption & investment	500.00
Change in inventory	100.00
Gross private domestic fixed invest.	1,200.00
(Import – Export) (1,200.00 – 900.00)	(300).00
Net factor payment to abroad	100.00
Dep.	(200).00
	9,750.00

Q.3

Solution:

Inventory Investment	100.00
Import – Export (100 – 200)	100.00
Personal consumption exp	3,500.00
Gross residential contru. Invest	300.00
Gov. purchased good & services	1,000.00
Gross public investment	200.00
Gross business fixed invest.	300.00
GDP_{MP}	**5,500.00**
Inventory Investment	100.00
Import – Export (100 – 200)	100.00
Indirect Taxes	(100).00
Net factor Income from abroad	(50).00
Personal consumption exp.	3,500.00
Gross residential constr. Invest	300.00
Dep.	(50).00
Gov. Purchase goods & serv.	1,000.00
Gross public investment	200.00
Gross business fixed inv.	300.00
	5,300.00

Q.4

Solution:

National Income	
GDP_{MP}	6,000.00
Recepits of factor income from abroad	150.00
Dep.	(800).00
Indirect taxes	(700).00
Payments of factor income from abroad	(225).00
National Income	**4,425.00**
National Income	4,225.00
Retained earnings (1,200.00 – 600.00)	(600).00
+ Transfer payment	1,300.00
(–) Personal Income Tax	(1,500).00
	3,625.00

Q.5

Solution:

Value of output in primary sector	500.00
Value of output in secondary sector	700.00
Value of output in tertiary sector	900.00
(A)	**2,100.00**
Value of intermediate in primary	250.00
Value of intermediate in secondary	300.00
Value of intermediate in tertiary	300.00
(B)	**850.00**
(A – B)	1,250.00
– NFIA	®20.00
	1,230.00

Q.6

Solution:

Relationship between NDP at FC, NNP, at FC, Personal Income and Personal Disposable Income is given in the following Table. Since Interest Received and Paid by Household is the same, its Net Effect is ignored.   Rs. Crores

Net Domestic Product at Factor Cost	8,000
Add: Net Factor Income from Abroad	200
National Income = Net National Product at Factor Cost	8,200
Add: Incomes Received but not "earned", i.e. Transfer Payments	300
Less: Incomes Earned, but not received, e.g. Contribution to Social Insurance, Corporate Income Taxes, Retained Corporate Earning, etc.	1,000 + 500 = (1,500)
Personal Income	7,000
Less: Personal Income Taxes	(500)
Personal Disposable Income	**6,500**

Q.7

Solution:

If Disposable Income (Y) is		Rs. 20,000	Rs. 25,000	Rs. 30,000
(a)	Consumption (C) = 6,000+0.75Y	6,000 + (0.75 x 20,000) = Rs. 21,000	6,000 + (0.75 x 25,000) = Rs. 24,750	6,000 + (0.75 x 30,000) = Rs. 28,500
(b)	Saving (S) = Y- C [Note 1]	20,00-21,000= Dissaving (Rs. 1,000)	25,000 – 24,750 = Rs. 250	30,000 – 28,500 = Rs. 1,500
(c)	Autonomous Consumption	[Note 2] Rs. 6,000	Rs. 6,000	Rs. 6,000
(d)	Induced Consumption = C-a	Rs. 15,000	Rs. 18,750	Rs. 22,500

Note:

1. Saving is the difference between Disposable Income and Consumption. It is the difference between the Consumption line and the 45 Degree line at each level of Disposable Income.

2. For the consumption Function C = a + by, where "a" = a constant which represents the positive value of Consumption at Zero Level of Disposable Income. Hence, in this case, a = Rs. 6,000. This is also the point at which the consumption Line intersects the vertical axis (Y – Axis). This is called Autonomous Consumption, i.e. unconnected with Income.

3. Induced Consumption is determined by the level of Income, i.e. it is Income-induced Consumption and is computed as Total Consumption (-) Autonomous Consumption.

Q.18

Solution:

1. Consumption Function (C) = a + by. In case, a = 9,000 (given), b = MPC = 1 – MPS =1 – 0.4 = 0.6 Hence, Consumption Function (C) = 9,000 + 0.6Y

2. If the Consumption is 36,000, then (C) 36,000 = 9,000 + 0.6Y. Solving, we have, **Income (Y) = Rs. 45,000**

Q.9

Solution:

(a) Value Added by firm A

= Sales by firm A − Purchases from firm B + Change in stock (Closing stock − Opening stock)

= ₹100 lakh − ₹40 lakh + (₹ 20 lakh − ₹ 25 lakh)

= ₹100 lakh − ₹40 lakh ₹5 lakh

= ₹55 lakh

Value Added by firm B

= Sales by firm B − Purchases from firm A + Change in stock (Closing stock − Opening stock)

= ₹200 lakh − ₹ 60 lakh + (₹35 lakh − ₹ 45 lakh)

= ₹200 lakh − ₹ 60 lakh − ₹10 lakh

= ₹130 lakh

Ans. Value added by firm A = ₹55 lakh.

Value Added by firm B = ₹130 lakh.

(b) Gross Value Added or Gross Domestic Product at Factor Cost

= Value added by firm A + Value added by firm B − Indirect taxes

= ₹55 lakh + ₹130 lakh − ₹30 lakh

= ₹185 lakh − ₹30 lakh

= ₹155 lakh

Ans. Gross domestic product at factor cost = ₹155 lakh.

[Note: Value by firm A and firm B here implies gross value added at market price.]

Q.10

Solution:

(a) Gross Value added at market Price

= Value of output of different sectors − value of intermediate inputs purchased by different sectors

= ₹800 lakh + ₹200 lakh + ₹300 lakh − ₹400 lakh − ₹100 lakh − ₹50 lakh

= ₹750 lakh

Ans. Gross value added at market price = ₹750 lakh.

(b)   National Income

=   Gross domestic product at market price – Consumption of fixed capital – Indirect taxes + subsidies + Factor income received by the residents from rest of the world – Factor income paid to non-residents

=   ₹750 lakh – ₹80 lakh – ₹50 lakh + ₹20 lakh + ₹10 lakh – ₹20 lakh

=   ₹630 lakh

Ans. National Income = ₹630 lakh.

Q.11

Solution:

(a)   Net Domestic Income

=   Mixed income of self-employed + Operating surplus + Compensation of employees

=   ₹28,000 crore + ₹10,000 crore + ₹24,000 crore

=   ₹62,000 crore

Ans. Net Domestic income = ₹ 62,000 crore

(b)   Gross Domestic income

=   Net domestic income + Depreciation

=   ₹62,000 crore + ₹1,700 crore

=   ₹63,700 crore

Ans. Gross domestic income = ₹63,700 crore

(c)   Net National Income

=   Net domestic Income + Net Factor income from abroad

=   ₹62,000 crore + (–) ₹300 crore

=   ₹62,000 crore – ₹300 crore

=   ₹61,700 crore

Ans. Net national Income = ₹61,700 crore.

(d)   Net National Product at Market price

=   Net National Income + Indirect taxes – Subsidies

=   ₹61,700 crore + ₹9,000 crore – ₹1,800 crore

=   ₹68,900 crore

Ans. Net National Product at Market price = ₹68,900 crore.

Q.12

Solution:

(a) GDP_{MP} = Gross investment + Net exports + Private consumption expenditure + Government purchase of goods and service

= ₹90 crore + ₹10 crore + ₹350 crore + ₹100 crore

= ₹550 crore

Ans. GDP_{MP} = ₹550 crore

(b) GDP_{FC} = GDPMP − Net Indirect taxes

= ₹550 crore − ₹5 crore

= ₹545 crore

Ans. GDP_{FC} = ₹545 crore

Q.13

Solution:

i) **GDP_{MP}**

Private final consumption exp.	290.00
Gov. Final consumption expenditure	50.00
Gross Domestic fixed capital formation	105.00
Net exports	(−) 5.00
Net addition to stock	15.00
	455.00

ii) **GDP_{FC}**

Private final consumption exp.	290.00
Gov. Final consumption expenditure	50.00
Net exports	5.00
Indirect Tax	(70).00
Subsidies	20.00
Net addition to stock	15.00
Gross Domestic fixed capital formation	105.00
GDP_{FC}	**405.00**

ii) National Income:

Private final consumption exp.	290.00
Gov. Final consumption expenditure	50.00
Subsidies	20.00
Gross Domestic fixed capital formation	105.00
Indirect Tax	(70).00
Consumption of fixed capital	45.00
NFIA	(5).00
Net addition to stock	15.00
Net exports	(5).00
National Income	**355.00**

Q.14

Solution:

Sales	1,000.00
Change in stock (200 – 100)	(100) .00
Intermediate cons.	(300) .00
Consumption of fixed capital	(150) .00
NDP$_{MP}$	**450.00**
NDP	450.00
Subsidies	(10).00
NFIA	10.00
Indirect tax	(50).00
	420.00

Q.15

Solution:

Particulars	Industry A	Industry B	Industry C
Sale Price of Output	400 + 200 + 1,000 = 1,600	500 + 800 = 1,300	600 + 500 = 1,100
Less: Cost of Intermediate Consumption	100	400	200 + 500 = 700
Value Added by Industry	1,500	900	400

GDP at Market Price = **GNP at Market Prices** (no Net Factor Income from abroad **Less:** Indirect Taxes	**2,800** (100)
Add: Subsidies	50
Gross National Product at Factor Cost	**2,750**
Less: Depreciation	(100)
Net National Product at Factor Cost	**2,650**
Less: Subsidies	(50)
Add: Indirect Taxes	100
Net National Product at Market Prices	**2,700**

Q.16
Solution:

1. GNP at Market Prices = GDP at Market Prices + Net Factor Income from Abroad = 1,100 + 100 = 1,200.

2. NNP at Market Prices = NNP at Factor Cost + Net Indirect Taxes = 850 + 150 = 1,000

3. Hence, Depreciation = GNP at Market Prices (−) NNP at Market Prices = 1,200 − 1,000 = Rs. 200 Crores.

Q.17
Solution:

(a) Value Added by firm A

= Sales to households + Sales to firm B + Exports − Imports − Purchase

= ₹90 lakh + ₹40 lakh + ₹20 lakh − ₹50 lakh − ₹30 lakh

= ₹70 lakh

Value added by firm B

= Sales to firm A + sales to households − Purchases from firm A

= ₹30 lakh + ₹60 lakh − ₹40 lakh

= ₹50 lakh

Ans. Value added by firm A = ₹70 lakh.

 Value added by firm B = ₹50 lakh.

(b)   Gross Domestic product at Market Price

    =   Value added by firm A + Value added by firm B

    =   ₹70 lakh + ₹50 lakh

    =   ₹120 lakh

Ans. Gross domestic product at market price = ₹120 lakh.

[**Note:** Sum total of value added by firm A and firm B implies gross value added because, there are only two firms in the economy.]

Q.18

Solution:

Gross   Domestic Product at Market Price

    =   Sales + Closing stock − Opening stock − Intermediate consumption

    =   (100 + 150 + 130) + (15 + 20 + 25) − (10 + 10 + 15) − (15 + 25 + 15)

    =   380 + 60 − 35 − 55

    =   350

Net Domestic Product at Factor Cost

    =   Gross domestic Product at market price − Consumption of fixed capital − Indirect tax + Subsidies

    =   350 − (10 + 12 + 15) − (12 + 13 + 17) + (7 + 8 + 7)

    =   350 − 37 − 42 + 22

    =   293

Ans. Net domestic product at factor cost = 393.

Q.19

Solution:

(a)   Domestic Income

    =   Wages + Rent + Interest + Dividend + Mixed income + Undistributed Profit + Social security contribution + Corporate profit tax

    =   ₹10,000 crore + ₹5,000 crore + ₹ 400 crore + ₹3,000 crore + ₹400 crore + ₹200 crore + ₹400 crore + ₹400 crore = ₹19,800 crore

    Ans. Domestic Income = ₹19,800 crore.

(b)   National Income

   =   Domestic Income + Net Factor Income from abroad

   =   ₹19,800 crore + ₹1,000 crore

   =   ₹20,800 crore

Ans. National income = ₹20,800 crore

Q.20

Solution:

GDP_{MP}

   =   Gross domestic fixed investment + Inventory investment + Consumption expenditure

   =   ₹10,000 crore + ₹5,000 crore + ₹20,000 crore

   =   ₹35,000 crore

NDP_{FC}

   = GDP_{MP} − Depreciation − Indirect taxes + Subsidies

   =   ₹ 35,000 crore − ₹2,000 crore − ₹1,000 crore + ₹2,000 crore

   =   ₹ 34,000 crore

Ans. NDP_{FC} = ₹34,000 crore

Extra sum Chapter 1 & 3

Illustration 1

If the required reserve ratio is 10 percent, currency in circulation is ₹ 400 billion, demand deposits are ₹ 1,000 billion, and excess reserves total ₹ 1 billion, find the value of money multiplier.

Solution

r = 10% = 0.10

Currency = 400 billion

Deposits = 1000 billion

Excess Reserves = 1 billion

Money Supply is M = Currency + Deposits = 1400 billion

c = C/D =

400 billion/1000 billion =0.4 or depositors hold 40 percent of their money as currency

e = 1 billion/1000 billion = 0.001 or banks hold 0.1% of their deposits as excess reserves

Multiplier

= 1 + 0.4/0.1 + 0.001 + 0.4 = 1.5/0.501 = 2.79

Therefore, a 1 unit increase in MB leads to a 2.79 units increase in M.

Illustration 2

An economy is in equilibrium. Calculate national income from the following –

Autonomous consumption = 100; Marginal propensity to save = 0.2; Investment expenditure = 200

Solution

Y = C + 1

Y = C + MPC (Y) + 1   where MPC = 1 − MPS

Y = 100 + 0.8Y + 200 = 300 + 0.8Y

Y − 0.8YY = 300

0.2YY = 300

Y = 1500

Illustration 3

Calculate marginal propensity to consume and marginal propensity to save from the following data about an economy which is in equilibrium.

National income = 25000, Autonomous consumption expenditure = 300, Investment expenditure = 100

Solution

Y = C + 1

By putting the value we get, 2500 = C + 100

C = 2500 − 100 = 2400

C = C + bY

2400 = 300 + 2500 b

2400 − 300 = 2500b

b = 0.84; MPS = 1 − MPC = 1 − 0.84 = 0.16

Illustration 4

An economy is characterised by the following equation −

Consumption   C = 60 + 0.9Y_d

Investment   1 = 10

Government expenditure G = 10

Tax   T = 0

Exports   X = 20

Imports   M = 10 + 0.05Y

What is the equilibrium income?

Calculate trade balance and foreign trade multiplier.

Solution

Y   = C + I + G + (X − M)

    = 60 + 0.9(Y − 0) + 10 + 10 + (20 − 10 − 0.05Y)

    = 60 + 0.9Y + 30 − 0.05Y

Y = 600

Trade Balance = X − M = 20 − 10 − 0.05(600) = - 20

Thus, trade balance in deficit.

Foreign trade multiplier = $\dfrac{1}{1-b+m}$ = $\dfrac{1}{1-0.9+0.05}$ = 6.66

Illustration 5

Suppose the consumption function C = 7 + 0.5Y, Investment is ₹ 100. Find out equilibrium level of Income, consumption and saving?

Solution

Equilibrium Condition −

Y = C + I, Given C = 7 + 0.5Y and I = 100

Therefore, Y = 7 + 0.5Y + 100

Y − 0.5Y = 107

Y = $\frac{1}{1-b}$ = 214

Y = C + I

214 = C + 100

C = 114

S = Y − C = 100

Illustration 6

Suppose the structural model of an economy is given −

C = 100 + 0.75 Yd; I = 200, G = T = 100; TR = 50, find the equilibrium level of income.

Solution

Y = C + I + G

Y = 100 + 0.75 Yd + 200 + 100

Y = 100 + 0.75(Y − 100 + 50) + 200 + 100

Y = 100 + 0.75Y − 75 + 37.5 + 200 + 100

Y = 1450

Or use Y = $\frac{1}{1-b}$ (a − bT + bTR + I + G) to calculate income.

Illustration 7

Suppose we have the following data about a simple economy:

C = 10 + 0.75Y_d, I = 50, G = T − 20 where C is consumption, I is investment, Y_d is disposable income, G is government expenditure and T is tax.

(a) Find out the equilibrium level of national income.

(b) What is the size of the multiplier?

Solution

(a) Since G = T, budget for the government is balanced

Substituting the values of C, I and G in Y we have

Y = C + I + G

Y = a + bY_d + I + G

Y = 10 + 0.75 (Y − 20) + 50 + 20

Y = 10 + 0.75 Y − 15 + 50 + 20

or, Y − 0.75 Y = 65

or, Y (1 − 0.75) = 65

or, 0.25 Y = 65

or, Y = 65/2.5 = 260

The equilibrium value of Y = 260

(b) The value of the multiplier is = 1/(1 − MPC) = 1/(1 − b) = 1/(1 − 0.75) = 1/0.25 = 4

Illustration 8

If saving function S = − 10 + 0.2Y and autonomous investment I = 50 Crores. Find out the equilibrium level of income e, consumption and if investment increases permanently by ₹5 Crores, what will be the new level of income and consumption?

Solution

S = I

− 10 + 0.2Y = 50

0.2Y = 50 + 10

Y = 300 Crores

C = Y − S

Where, S = 10 + 0.2 (300) = 50

C = 300 − 50 = 250 Crores

With the increase in investment by ₹ 5 Crores, the new investment will become equal to ₹ 55 Crores.

S = I

− 10 + 0.2Y = 55

Y = 325 Crores

C = 270 Crores

Illustration 9

The consumption function is C = 40 + 0.8Y_d, T = 0.1Y, I = 60 Crores, G = 40 Crores, X = 58 and M = 0.05Y. Find out equilibrium level of income, Net Export, net export if export were to increase by 6.25.

Solution

C = 40 + 0.8Y_d

C = 40 + 0.8(Y − 0.1Y)

Y = C + I + G + (X − M)Y = 40 + 0.8(Y − 0.1Y) + 60 + 40 + (58 − 0.05Y)

Y = 40 + 0.8(0.9Y) + 60 + 40 + 58 − 0.05Y

Y − 0.72Y + 0.05Y = 198

Y(1 − 0.72 + 0.05) = 198

Y(0.33) = 198

Y = 198/0.33 = 600 Crores

Net Export = X − M = 58 − 0.05Y

58 − 0.05 (600) = 58 − 30 = 28

If exports increase by 6.25, then exports = 64.25

Then Y = 40 + 0.8(Y − 0.1Y) + 60 + 40 + (64.25 − 0.05Y)

Y(1 − 0.72 + 0.05) = 204.5

Y(0.33) = 204.5

Y = 204.5/0.33 = 619.697

Then import = .05 ₹ 619.697 = 30.98

Net Export = 64.25 − 30.98 = 33.27 Crores

Thus, there is surplus in balance of trade as Net Exports are positive.

Illustration 10

Suppose the consumption of an economy is given by C = 20 + 0.6Y and investment I = 10 + 0.2YY. What will be the equilibrium level of National Income?

Solution

Y = C + I = 20 + 0.6YY + 10 + 0.2Y

Y = 30 + 0.8Y

Y = 0.8Y = 30

Y = 150

Illustration 11

In an economy, investment is increases by ₹600 Crores. If the marginal propensity to consume is 0.6, calculate the total increase in income and consumption expenditure.

Solution

MPC = 0.6, ΔI = ₹ 600 Crores

Multiplier (K) = 1/1 − MPC = 1/1 − 0.6 = 1/0.4 = 25.

Increase in income (ΔY) = K ₹ ΔI = 2.5 x ₹ 600 Crores = ₹ 1,500 Crores

Increase in consumption (ΔC) = ΔY x MPC = ₹ 1, 500 Crores x 0.6 = ₹ 900 Crores.

Illustration 12

Suppose in a country investment increases by ₹ 100 Crores and consumption is given by C = 10 + 0.6Y (where C = consumption and Y = income). How much increases will there take place in income?

Solution

Multiplier = k = $\dfrac{1}{1-\text{MPC}}$ $k = \dfrac{1}{1-0.6}$ = 2.5

Substituting the value of k and ΔI value in ΔY = kΔI

ΔY = 2.5 x 100 = ₹ 250 crores

Thus, increase in investment by ₹ 100 Crores will cause equilibrium income to rise by ₹250 Crores.

Illustration 13

If the consumption function is C = 250 + 0.80Y and I = 300. Find out equilibrium level of Y, C and S?

Solution

$Y = \dfrac{1}{1-b} (a + \bar{I})$ (a + I) or Y = C + I

$Y = \dfrac{1}{1-.80} (250 + 300) = 2750$

$C = a + \dfrac{b}{1-b} (a + \bar{I})$ or C = 250 + 0.80Y

C = 250 + **0.8(2750) C = 2450**

S = Y − C where C = a + bY

S = Y − (a + bY)

S = − a + (1 − b) Y

= − 250 + (1 − 0.80) 2750 = 300

Or directly,

S = Y − C

S = 2750 − 2450 = 300

Speak Your Mind

Chapter 7
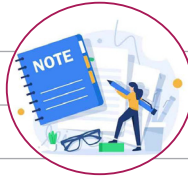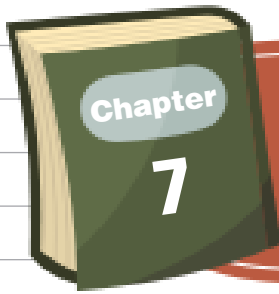
PUBLIC FINANCE

UNIT 1 – FISCAL FUNCTIONS: AN OVERVIEW, CENTRE AND STATE FINANCE

1.1 INTRODUCTION

Governments at various levels involve in several operations for running the state. We have experienced in our day-to-day life that though governments at various levels impose many rules and regulations in the economy, some matters still go unregulated. For a variety of reasons, we believe that governments should accomplish some activities and should not do others.

There are three main macroeconomic goals for any nation:
(1)	The first is economic growth.
(2)	The second goal is high levels of employment which will ensure higher income and higher output.
(3)	The third macroeconomic goal is stable price levels.
	The government does not expect the economy to function automatically; rather it intervenes to direct them to function in particular directions.

1.2 THE ROLE OF GOVERNMENT IN AN ECONOMIC SYSTEM

The basic economic problem of scarcity arises from the fact that wants are unlimited and the resources available to any society are limited.

The modern society, in general, offers three alternate economic systems through which the decisions of resource reallocation may be made namely, the market, the government and a mixed system where both markets and governments simultaneously determine resource allocation. Correspondingly, we have three economic systems namely, capitalism, socialism and mixed economy, each with different degrees of state intervention in economic activities.

Adam Smith is often described as a bold advocate of free markets and minimal governmental activity. Smith believed that government's roles in society should be limited, but well defined. However, Smith saw an important resource allocation role for the government when he underlined the role of government in:

(a)   national defence to protect the nation from external violence and invasion,

(b)   establishing a system of justice to provide internal law and order and to protect property

(c)   establishment and maintenance of highly beneficial public institutions and public works such as roads, bridges, canals, harbours, and postal system that profit-seeking individuals may not be able to efficiently build and operate.

Since the 1930s, more specifically, as a consequence of the great depression, the state's role in the economy has been distinctly gaining in importance, and therefore, the traditional functions of the state have been supplemented with what is referred to as economic functions (also called fiscal functions or public finance function). Richard Musgrave, in his classic treatise 'The Theory of Public Finance' (1959), introduced the three-branch taxonomy of the role of government in a market economy. The functions of the government are to be separated into three, namely,

(a)   resource allocation (to ensure efficiency),

(b)   income redistribution (to guarantee fairness), and

(c)   macroeconomic stabilization (to ensure price stability).

1.3   THE ALLOCATION FUNCTION

One of the most important functions of an economic system is the optimal or efficient allocation of scarce resources so that the available resources are put to their best use and no wastages are there. Economic efficiency indicates a situation in which all resources are allocated to serve each person in the best way possible, minimising waste and inefficiency.

The private sector resource allocation is characterized by market supply and demand and price mechanism as determined by consumer sovereignty and producer profit motives. The state's allocation, on the other hand, is accomplished through the revenue and expenditure activities of governmental budgeting. In the real world, resource allocation is determined by both market and the government.

Allocative efficiency is concerned with utilizing limited resources to produce goods and services that would maximize value to the society.

Efficient allocation of available resources in an economy is assumed to take place only when the markets are perfectly competitive and economic agents make rational choices and decisions. Market failures which hinder efficient allocation of resources occur mainly due to the following reasons:

• Imperfect competition and presence of monopoly power

• Markets typically fail to provide collective public goods

• Incomplete markets;

• Common property resources (e.g. environment) are overused

• Externalities

• Factor immobility

• Imperfect information

• Inequalities

In the absence of appropriate government intervention, market failures may occur and the resources are likely to be misallocated with too much production of certain goods or too little production of certain other goods.

The resource allocation role of government's policy focuses on the potential for the government to improve economic performance through its expenditure and tax policies. The allocative function in budgeting determines:

(a)   who and what will be taxed

(b)   how much and on what the government revenue will be spent

(c)   the process by which the total resources of the economy are divided among various uses

(d)   the optimum mix of various social goods (both public goods and merit goods).

(e)   the level of involvement of the public sector in the national economy

(f)   the reallocation of society's resources from private use to public use.

A variety of allocation instruments are available by which governments can influence resource allocation in the economy.

They are as follows :

1.4 THE REDISTRIBUTION FUNCTION

The distribution responsibility of the government arises from the fact that, left to the market, the distribution of income and wealth among individuals in the society is likely to be skewed and therefore, the government has to intervene to ensure a more socially optimal and egalitarian distribution.

The distributive function of budget is related to the basic question of 'for whom' should an economy produce goods and services.

The distribution function of the government aims at:

A few examples of the redistribution function (or market intervention for socio-economic reasons) performed by governments are:

In modern times, most of the egalitarian welfare states provide free or subsidized education and health-care system, unemployment benefits, pensions and such other social security measures. There is, nevertheless, an argument that in exercising the redistributive function, there would be a conflict between efficiency and equity. An optimal budgetary policy towards any distributional change should reconcile the conflicting goals of efficiency and equity by exercising an appropriate trade-off between them. In other words, redistribution measures should be accomplished with minimal efficiency costs by carefully balancing equity and efficiency objectives.

1.5 STABILIZATION FUNCTION

Macroeconomic stability is said to exist when:

- an economy's output matches its production capacity,
- the economy's total spending matches its total output
- the economy's labour resources are fully employed, and
- Inflation is low and stable.

The stabilization function is concerned with the performance of the aggregate economy in terms of:

- labour employment and capital utilization,
- overall output and income,
- general price levels,
- balance of international payments, and
- the rate of economic growth.

Government's stabilization intervention may be through monetary policy as well as fiscal policy. Monetary policy works through controlling the size of money supply and interest rate in the economy which in turn would affect consumption, investment and prices.

Centre and State Finance

Fiscal federalism, a term introduced by Richard Musgrave, deals with the division of governmental functions and financial relations among the different levels of government.

India is a federation of 28 states and 8 union territories. Fundamentally, federalism is an institutional arrangement to accommodate two sets of government – one at the national level and the other at the regional level.

The constitution of India has provided for the division of powers between the central and the state governments. Article 246 of the Constitution demarcates the powers of the union and the state by classifying their powers into three lists, namely

(1)   union list,

(2)   state list and

(3)   the concurrent list.

The union list contains items on which the union parliament alone can legislate, the state list has items on which the state legislative assemblies alone can legislate, and the concurrent list, on which both the parliament and the legislative assemblies can legislate. In the event of conflicting legislation in concurrent list, the law passed by the centre prevails.

(1)   Taxes are levied by the centre and the states. The central government has greater revenue raising powers. The union government can levy taxes such as tax on income, other than agricultural income, customs and export duties, excise duties on certain goods, corporation tax, tax on capital value of assets excluding agricultural land, terminal taxes, security transaction tax, central GST, union excise duty, taxes other than stamp duties etc.

(2)   The state governments can levy taxes on agricultural income, lands and buildings, mineral rights, electricity, vehicles, tolls, professions, collect land revenue and impose excise duties on certain items. The property of the union is exempt from state taxation. The property and income of the states are not liable to be taxed by the centre.

Distribution of revenue between the union and states is based on the constitutional provisions as follows:

Article 268	
Article 269	
Article 270	

Article271	
Article275	
Article 293	

The Finance Commission helps in maintaining fiscal federalism in India by performing following functions:

(a) The distribution between the union and the states of the net proceeds of taxes

(b) Determination of principles and quantum of grants-in-aid to states which are in need of such assistance.

(c) To make recommendations to the President on measures needed to augment the consolidated fund of a state to supplement the resources of the panchayats and municipalities in the state on the basis of the recommendations made by the Finance Commission of the state.

(d) Any other matter referred to the Commission by the President in the interests of sound finance.

While recommending transfers, the Finance Commission considers issues related to vertical equity (deciding about the share of all states in the revenue collected by centre) and horizontal equity (allocation among states their share of central revenue).

The Fifteenth Finance Commission was constituted on 27, November 2017 against the background of the abolition of Planning Commission (as also of the distinction between Plan and non-Plan expenditure) and the introduction of the goods and services tax (GST). The commission recommended the share of states in the central taxes (vertical devolution) for the 2021-26 to be 41%, which is the same as that for 2020-21. This is less than the 42% share recommended by the 14th Finance Commission for 2015-20. The adjustment of 1% is to provide for the newly formed union territories of Jammu and Kashmir, and Ladakh from the resources of the centre. The criteria for distribution of central taxes among states for 2021-26 period are same as that for 2020-21. They is:

(a) Income Distance i.e the distance of a state's income from the state with the highest income.

(b) Area

(c) Population (2011)

(d) Demographic performance (to reward efforts made by states in controlling their population)

(e) Forest and ecology:

(f) Tax and fiscal efforts:

The GST has made India's indirect tax regime unitary in nature.

The states levy and collect state GST (SGST) and the union levies and collects the central GST (CGST). For any particular good or service or a combination of the two, the SGST and CGST rates are equal. An integrated GST (IGST) is applied on inter-state movement of goods and services and on imports and exports. GST accounts for 35 per cent of the gross tax revenue of the union and around 44 per cent of own tax revenue of the states.

During the five-year transition period, the top five GST compensation-receiving states were Maharashtra, Karnataka, Gujarat, Tamil Nadu, and Punjab.

QUESTIONS AND ANSWER

Question 1

Explain the role of government in a market economy.

Answer

The modern society, in general, offers three alternate economic systems through which the decision of resource reallocation may be made namely, the market, the government and a mixed system where both market and governments simultaneously determine resource allocation.

Adam Smith is often described as a bold advocate of free markets and minimal governmental activity. However, smith saw an important resource allocation role for government when he underlined the role of government in national defense, maintenance of justice and the rule of law, establishment and maintenance of highly beneficial public institutions and public works which the market may fail to produce on account of lack of sufficient profits. Since the 1930s, more specifically as a consequence of the great depression, the state's role in the economy has been distinctly gaining in importance and therefore, the traditional function of the state have been supplemented with what is referred to as economic function (also called fiscal or public finance function).

Richard Musgrave, in his classic treatise 'The Theory of Public Finance '(1959), introduced the three branch taxonomy of the role of government are to be separated into three, namely, resource allocation, (efficiency), income redistribution (fairness) and macroeconomic stabilization.

The allocation and distribution functions are primarily microeconomic functions, while stabilization is a macroeconomic function. The allocation function aims to correct the sources of inefficiency in the economic system while the distribution role ensures that the distribution of wealth and income is fair.

Monetary and fiscal policy, the problems of macroeconomic stability, maintenance of high levels of employment and price stability etc. fall under the stabilization function.

Question 2

Describe the various interventional measures adopted by the government.

Answer

Following are the fundamental reason which justifies Government's intervention in markets:

1. **Allocation function:** A market economy is subject to serious malfunctioning in several basic respects. There is also the problem of nonexistence of market in a variety of situations. While private goods will be sufficiently provided by the market, public goods will not be produced in sufficient quantities by the market. Efficient allocation of resources is assumed to take place only in perfectly competitive markets. In reality, markets are never perfectly competitive. Market failures which hold back the efficient allocation of resources.

   In the absence of appropriate government intervention, market failures may occur and the resources are likely to be misallocated by too much production of certain goods or too little production of certain other goods. The allocation responsibility of the governments involves suitable corrective action when private markets fail to provide the right and combination of goods and services. Briefly put, market failures provide the rationale for government's allocation function.

2. **Redistribution Function:** The outcomes of this growth have not spread evenly across the households. The distribution responsibility of the government arises from the fact that, left to the market, the distribution of income and wealth among individual in the society is likely to be skewed and therefore the government has to intervene to ensure a more desirable and just distribution.

   The redistribution function of the government aims at:
   - redistribution of income to achieve an equitable distribution of societal output among household
   - advancing the well-being of those members of the society who suffer from deprivations of different types
   - providing equality in income, wealth and opportunities
   - providing security for people who have hardships, and
   - ensuring that everyone enjoys a minimal standard of living

3. **Stabilization Function:** Market economy does not automatically generate full employment and price stability and therefore the government should pursue deliberate stabilization policies. Business cycles are natural phenomena in any economy and they tend to occur periodically. In the absence of appropriate corrective

intervention by the government, the instabilities that occur in the economy in the form of recessions, inflation etc. may be prolonged for longer periods causing enormous hardship to people especially the poorer sections of society. It is also possible that a situation of stagflation (a state of affair in which inflation and unemployment exist side by side) may set in and make the problem more severe. The stabilization function is one of the key function of fiscal policy and aims at eliminating macroeconomic fluctuation arising from suboptimal allocation.

The stabilization function is concerned with the performance of the aggregate economy in terms of:

➢ labour employment and capital utilization,

➢ overall output and income,

➢ general price levels,

➢ balance of international payments and

➢ The rate of economic growth.

Question 3

Explain how economic stability can be achieved through fiscal policy.

Answer

Government's stabilization intervention may be through monetary policy as well as fiscal policy. Monetary policy has a singular objective of controlling the size of money supply and interest rate in the economy which in turn would affect consumption, investment and prices.

Fiscal policy for stabilization purposes attempts to direct the actions of individuals and organizations by means of its expenditure and taxation decisions. On the expenditure side. Government can choose to spend in such a way that it stimulates other economic activities. For example, government expenditure on building infrastructure may initiate a series of productive activities. Production decisions, investment, saving etc. can be influenced by its tax policies.

During recession, the government increases its expenditure or cut down taxes or adopts a combination of both so that aggregate demand is boosted up with more money put into hands of the people. On the other hand, to control high inflation the government cuts down its expenditure or raises taxes.

In other words, expansionary fiscal policy is adopted to alleviate recession and contractionary fiscal policy is resorted to for controlling high inflation.

Question 4

What are the different instruments available to the government to improve allocation efficiency in an economy?

Answer

A variety of allocation instruments are available by which government can influence resource allocation in the economy. For example,

- government may directly produce the economic good (for example, electricity and public transportation services)

- government may influence private allocation through incentive and disincentive (for example, tax concessions and subsidies may be given for the production of goods that promote social welfare and higher taxes may be imposed on goods such as cigarettes and alcohol)

- government may influence allocation through its competition policies, merger policies etc. which will affect the structure of industry and commerce (for example, the Competition Act in India promotes competition and prevents anti-competitive activities).

- governments' regulatory activities such as licensing, control, minimum wages, and directives on location of industry influence resource allocation

- government sets legal and administrative frameworks, and

- any of a mixture of intermediate techniques may be adopted by governments.

MODULE MULTIPLE CHOICE QUESTIONS

1. Redistribution policies are likely to have efficiency costs because
    (a) They will reduce the efficiency of governments
    (b) They may create disincentives to work and save
    (c) Governments have to forego taxes
    (d) They are likely to make the poor people dependent on the rich

2. Macroeconomic stabilization may be achieved through
    (a) Free market economy   (b) Fiscal policy
    (c) Monetary policy   (d) (b) and (c) above

3. Which of the following policies of the government fulfils the redistribution function
    (a) Parking the army on the northern borders of the country
    (b) Supply of food grains at subsidized prices to the poor people
    (c) Controlling the supply of money through monetary policy
    (d) All of the above

4. Choose the correct statement
    (a) Fiscal policy involves the use of changes in taxation and government spending; while monetary policy involves the use of price and profit controls.
    (b) Fiscal policy involves the use of price and profit controls; while monetary policy involves the use of taxation and government spending.
    (c) Fiscal policy involves the use of changes in taxation and government spending; while monetary policy involves the use of changes in the supply of money and interest rates.
    (d) Fiscal policy involves the use of changes in the supply of money and interest rates; while monetary policy involves the use of changes in taxation and government spending.

5. The justification for government intervention is best described by
    (a) The need to prevent recession and inflation in the economy
    (b) The need to modify the outcomes of private market actions
    (c) The need to bring in justice in distribution of income and wealth
    (d) All the above

6. Read the following statements:

    1. The market-generated allocation of resources is usually imperfect and leads to inefficient allocation of resources in the economy

    2. Market failures can at all times be corrected through government intervention

    3. Public goods will not be produced in sufficient quantities in a market economy

Of the three statements above:

(a) 1,2 and 3 are correct   (b) 1 and 3 are correct

(c) 2 and 3 are correct   (d) 3 alone is correct

7. When a government offers unemployment benefits and also resorts to progressive taxation which function does it seem to fulfill?

(a) It is trying to establish stability in an economy

(b) It is trying to redistribute income and wealth

(c) It is trying to allocate resources to their most efficient use

(d) It is creating a source of market failure

8. Government of Emeline Land decides to provide most modern road infrastructure throughout the nation. This can be classified as

(a) Distribution function   (b) Allocation function

(c) Stabilization function   (d) None of the above

9. Which function does the government perform when it provides transfer payments to offer support to the underprivileged

(a) Allocation   (b) Efficiency

(c) Distribution   (d) None of the above

10. Which of the following is true in respect of centre and state government finances?

(a) The centre can tax agricultural income and mineral rights

(b) Finance commission recommends distribution of taxes between the centre and states

(c) GST subsumes majority of direct taxes and a few indirect taxes

(d) IGST is collected by the state governments

11. GST compensation is given to

(a) to the industries which have made losses due to the introduction of GST

(b) to compensate for the lower rates of GST on essential items

(c) to the states to compensate for the loss of revenue due to the introduction of GST

(d) to compensate for the loss of input tax credit in manufacturing

12. Which of the following is true in respect of the role of Finance Commissions in India?

I. The distribution between the union and the states of the net proceeds of taxes

II. Allocation between the states of the respective shares of such proceeds.

III. Make Recommendations on integrated GST on inter-state movement of goods and services

IV. To recommend expenditure decentralization among different states

(a) I and II are correct

(b) II and III are correct

(c) I, II and III are correct

(d) All the above are correct

13. In a federal set up, the stabilization function can be effectively performed by

(a) Respective state governments   (b) Ministry of taxes

(c) The government at the centre   (d) None of the above

14. Which of the following is concerned with division of economic responsibilities between the central and state Government of India?

(a) NITI Aayog   (b) central bank

(c) Finance Commission   (d) Parliament

15. Fiscal Federalism refers to _____.

(a) Organizing and implementing development plans

(b) Sharing of political power between centers and states

(c) The management of fiscal policy by a nation

(d) Division of economic functions and resources among different layers of the government

16. Which one of the following taxes is levied by the state government only?

(a) Corporation tax   (b) Wealth tax

(c) Income tax   (d) None of the above

17. The percentage of share of states in central taxes for the period 2021-26 recommended by the Fifteenth Finance Commission is

   (a) 38 percent

   (b) 41 percent

   (c) 42 percent

   (d) The commission has not submitted its report

18. Which of the following is not a criterion for determining distribution of central taxes among states for 2021-26 period

   (a) Demographic performance   (b) Forest and ecology

   (c) Infrastructure performance   (d) Tax and fiscal efforts

19. As per the supreme court verdict in May 2022

   (a) The union has greater powers than the states for enacting GST laws

   (b) The union and state legislatures have "equal, simultaneous powers "to make laws on Goods and Services Tax

   (c) The union legislature's enactments will prevail in case of a conflict between those of union and states

   (d) The state legislatures can make rules only with the permission of central government

20. Providing social sector services such as health and education is

   (a) the responsibility of the central government

   (b) the responsibility of the respective state governments

   (c) the responsibility of local administrative bodies

   (d) none of the above

ANSWERS:

1	(b)	2	(d)	3	(b)	4	(c)	5	(d)	6	(b)
7	(b)	8	(b)	9	(c)	10	(b)	11	(c)	12	(a)
13	(c)	14	(c)	15	(d)	16	(d)	17	(b)	18	(c)
19	(b)	20	(b)								

SUMMARY

➤ Government intervention to direct the functioning of the economy is based on the belief that the objective of the economic system and the role of government is to improve the wellbeing of individuals and households.

➤ An economic system should exist to answer the basic questions such as what, how and for whom to produce and how much resources should be set apart to ensure growth of productive capacity.

➤ Richard Musgrave (1959) introduced the three-branch taxonomy of the role of government in a market economy namely, resource allocation, income redistribution and macroeconomic stabilization.

➤ The allocation and distribution functions are primarily microeconomic functions, while stabilization is a macroeconomic function.

➤ One of the most important functions of an economic system is the optimal or efficient allocation of scare resources so that the available resources are put to their best use and no wastages are there.

➤ Market failures, which hold back the efficient allocation of resources, occur mainly due to imperfect competition, presence of monopoly power, collectively consumed public goods, externalities, factor immobility, imperfect information, and inequalities in the distribution of income and wealth.

➤ The allocation responsibility of the governments involves appropriate corrective action when private markets fail to provide the right and desirable combination of goods and services.

➤ A variety of allocation instruments are available by which governments can influence resource allocation in the economy such as, direct production, provision of incentives and disincentives, regulatory and discretionary policies etc.,

➤ The distributive function of budget is related to the basic question of for who should an economy produce goods and services and aims at redistribution of income so as to ensure equity and fairness to promote the wellbeing of all sections of people and is achieved through taxation, public expenditure, regulation and preferential treatment of target populations.

➢ Redistribution policies are likely to have efficiency costs or deadweight losses and herefore redistribution measures should be accomplished with minimal efficiency cost by carefully balancing equity and efficiency objectives.

➢ A market economy does not automatically generate full employment and price stability and therefore the governments should pursue deliberate stabilization policies.

➢ Stabilization function is one of the key functions of fiscal policy and aims at eliminating macroeconomic fluctuations arising from suboptimal allocation.

➢ The stabilization function is concerned with the performance of the aggregate economy in terms of labour employment and capital utilization, overall output and income, general price levels, economic growth and balance of international payments.

➢ Government's stabilization intervention may be through monetary policy as well as fiscal policy. Monetary policy works through controlling the size of money supply and interest rate in the economy, while fiscal policy aims at changing aggregate demand by suitable changes in government spending and taxes. Centre and state Finance

➢ Fiscal federalism deals with the division of governmental functions and financial relations among the different levels of government.

➢ The central government should be responsible for the economic stabilization and income redistribution, but the allocation of resources should be the responsibility of state and local governments.

➢ Article 246 of the Constitution demarcates the powers of the union and the state by classifying their powers into 3 lists, namely union list (on which the union parliament alone can legislate) state list (on which the state legislative assemblies alone can legislate) and the concurrent list on which both, the parliament and the legislative assemblies can legislate.

➢ The union government can levy taxes such as tax on income, other than agricultural income, customs and export duties, excise duties on certain goods, corporation tax, tax on capital value of assets, excluding agricultural land, terminal taxes, security transaction tax, Central GST, Union Excise Duty, taxes other than stamp duties etc.

➢ The state governments can levy taxes on agricultural income, lands and buildings, mineral rights, electricity, vehicles, tolls, professions, as well as collect land revenue, and impose excise duties on certain items.

➢ Articles 268 to 281 of the constitution contain specific provisions in respect of distribution of finances among states.

➢ Article 280, provides for an institutional mechanism, namely the Finance Commission, to facilitate such transfers. It is responsible for evaluating the state of finances of the union and state governments, recommending the sharing of taxes between them and laying down the principles determining the distribution of these taxes among States

➢ The Finance Commission considers issues related to vertical equity (deciding about the share of all states in the revenue collected by centre) and horizontal equity (allocation among states their share of central revenue).

➢ The Fifteenth Finance Commission recommended the share of states in the central taxes (vertical devolution) for the 2021-26 to be 41%.

➢ The criteria for distribution of central taxes among states for 2021-26 are income distance i.e the distance of a state's income from the state with the highest income, area, population (2011), demographic performance (to reward efforts made by states in controlling their population), forest and ecology and tax and fiscal efforts.

➢ States levy and collect state GST (SGST) and the union levies and collects the central GST (CGST). An integrated GST (IGST) is applied on inter-state movement of goods and services and on imports and exports.

➢ For providing compensation to states, a cess is levied on luxury goods and demerit goods and the proceeds are credited to the compensation fund. GST compensation was extended beyond five years to enable states to tide over the pandemic induced economic slowdown.

➢ The central government is entrusted with the responsibilities of provision of nationally important areas like defence, foreign affairs, foreign trade and exchange management, money and banking, cross-state transport and communication.

➢ The state governments are entrusted with the responsibility of facilitating agriculture and industry, providing social sector services such as health and education, police protection, state roads and infrastructure.

➢ The local self governments such as municipalities and panchayats are entrusted with the responsibility of providing public utility services such as water supply and sanitation, local roads, electricity etc. For items that fall in the concurrent list, both central and state governments are responsible for providing services.

UNIT 2 – MARKET FAILURE

2.2 THE CONCEPT OF MARKET FAILURE

The inefficient allocation of resources in an economy is described as market failure. Market failure is a situation in which the free market leads to misallocation of society's scarce resources in the sense that there is either overproduction or underproduction of particular goods and services leading to a less than optimal outcome. There are two types of market failure namely;

1.

2.

2.3 WHY DO MARKETS FAIL?

1.

2.

3.

4.

5.

2.3.1 MARKET POWER

Market power or monopoly power is the ability of a firm to profitably raise the market price of a good or service over its marginal cost. Firms that have market power are price makers and therefore, can charge a price that gives them positive economic profits. Excessive market power causes the single producer or a small number of producers to restrict output (i.e produce and sell less output than would be produced in a competitive market) and charge price higher than what would prevail under perfect competition. These profits are not achieved due to operating efficiency, but due to market power and dominance. Thus, market fails to produce the right quantity of goods and services at the right price.

Eg.:

2.3.2 EXTERNALITIES

Externalities are costs (negative externalities) or benefits (positive externalities), which are not reflected in free market prices. They are called externalities because they are "external" to the market. Externalities are also referred to as 'spillover effects', 'neighbourhood effects' 'thirdparty effects' or 'side-effects', as the originator of the externality imposes costs or benefits on others who are not responsible for initiating the effect.

Externalities can be positive or negative. Negative externalities occur when the action of one party imposes costs on another party. Positive externalities occur when the action of one party confers benefits on another party.

Production Externalities

A negative production externality initiated in production which imposes an external cost on others may be received by another in consumption or in production. As an example,

➢ A negative production externality is received in consumption when a factory which produces aluminium discharges untreated waste water into a nearby river and pollutes the water causing health hazards for people who use the water for drinking and bathing.

➢ A negative production externality is received in production when pollution of river affects fish output as there will be less catch for fishermen due to loss of fish resources.

The firm, however, has no incentive to account for the external costs that it imposes on consumers of river water or on fishermen when making its production decision. Additionally, these external costs are never reflected in the price of the product.

A positive production externality initiated in production that confers external benefits on others may be received in production or in consumption.

➢ A firm which offers training to its employees for increasing their skills generates positive benefits on other firms when they hire such workers as they change their jobs.

➢ A positive production externality is received in consumption when an individual raises an attractive garden and the persons walking by enjoy the garden. These external effects were not in fact taken into account when the production decisions were made.

Consumption Externalities

Negative consumption externalities initiated in consumption which produce external costs on others may be received in consumption or in production.

➢ smoking cigarettes in public place causing passive smoking by others, creating litter and diminishing the aesthetic value of the room and playing the radio loudly obstructing one from enjoying a concert are examples of negative consumption externalities affecting consumption

➢ The act of undisciplined students talking and creating disturbance in a class preventing teachers from making effective instruction and the case of excessive consumption of alcohol causing impairment in efficiency for work and production are instances of negative consumption externalities affecting production.

A positive consumption externality initiated in consumption that confers external benefits on others may be received in consumption or in production.

➢ if people get immunized against contagious diseases, they would confer a social benefit to others as well by preventing others from getting infected.

➢ Consumption of the services of a health club by the employees of a firm would result in an external benefit to the firm in the form of increased efficiency and productivity.

we need to understand the difference between private costs and social costs. Private cost is the money cost of production incurred by the firm i.e. costs such as ages, raw materials, heating and lighting which must be paid to carry out production, and these which would appear in the firm's accounts.

Social costs refer to the total costs to the society on account of a production or consumption activity.

$$\text{Social Cost = Private Cost + External Cost}$$

The external costs are not included in firms' income statements or consumers' decisions.

2.4 PUBLIC GOODS

Paul A. Samuelson who introduced the concept of 'collective consumption good' in his path – breaking 1954 paper 'The Pure Theory of Public Expenditure' is usually recognized as the first economist to develop the theory of public goods.

Private Goods:

1. Private goods do not face any have free-rider problem.

2. Private goods are 'excludable'

3. Consumption of private goods is 'rivalrous'

4. Normally, the market will efficiently allocate resources for the production of private goods.

5. A few examples are: food items, clothing, movie ticket, television, cars, houses etc.

Public Goods:

1. Public goods are products (goods or services) whose consumption is essentially collective in nature.

2. Public good is non-rival in consumption.

3. Public goods are non-excludable.

4. Public goods are characterized by indivisibility.

5. Public goods are generally more vulnerable to issues such as externalities, inadequate property rights, and free rider problems.

2.5 INCOMPLETE INFORMATION

Complete information is an important element of a competitive market. Perfect information implies that both buyers and sellers have complete information about anything that may influence their decision making. However, this assumption is not fully satisfied in real markets because of

➢ complexity of products and services (e.g. cardiac surgery, financial products like mutual funds),

➢ difficulty of getting correct information, and

➢ deliberate misinformation by interested parties (e.g. highly persuasive advertisements). Information failure results in market failure.

2.5.1 ASYMMETRIC INFORMATION

Asymmetric information occurs when there is an imbalance in information between the buyer and the seller i.e. when the buyer knows more than the seller or the seller knows more than the buyer. This can distort choices. For example,

Adverse Selection

Asymmetric information generates adverse selection and affects a transaction before it occurs.

Thus, asymmetric information leads to elimination of high-quality goods from the market. Economic agents end up either selecting a sub-standard product or leaving the market altogether.

Moral Hazard

Moral hazard arises whenever there is an externality (i.e., whenever an economic agent can shift some of its costs to others). It is about actions made after making a market exchange which may have adverse impact on the less-informed person. In other words, it is about the opportunism characterized by an informed person's taking advantage of a less-informed person through an unobserved action. It arises from lack of information about someone's future behaviour.

2.6   GOVERNMENT INTERVENTION TO MINIMIZE MARKET POWER

Governments intervene by establishing rules and regulations designed to promote competition and prohibit actions that are likely to restrain competition. These legislations differ from country to country. For example, in India, we have the Competition Act, 2002 (as amended by the Competition (Amendment) Act, 2007) to promote and sustain competition in markets. The Antitrust laws in the US and the Competition Act, 1998 of UK etc are designed to promote competitive economy by prohibiting actions that are likely to restrain competition.

Other measures include:

➢   Market liberalisation.

➢   Controls on mergers and acquisitions.

- Price capping and price regulation
- Profit or rate of return regulation
- Patronage to consumer associations
- Tough investigations into cartelisation and unfair practices such as collusion and predatory pricing
- Restrictions on monopsony power of firms
- Reduction in import controls and
- Nationalisation

2.7 GOVERNMENT INTERVENTION TO CORRECT EXTERNALITIES

To promote the overall welfare of all members of society, social returns should be maximized and social costs minimized.

Governments have numerous methods to reduce the effects of negative externalities and to promote positive externalities. We shall first examine how government regulation can deal with the inefficiencies that arise from negative externalities.

Government initiatives towards negative externalities may be classified as:

1. Direct controls or regulations that openly regulate the actions of those involved in generating negative externalities, and
2. 'Market-based' policies that would provide economic incentives

(I) Direct controls, also known as command solutions:
- The government may, through legislation, fix emissions standard which is the legal limit on how much pollutant a firm can emit.
- Licensing, production quotas and mandates.
- Production, use and sale of many commodities and services are prohibited in our country.
- Smoking is completely banned in many public places.
- Stringent rules are in place in respect of tobacco advertising, packaging and labeling etc.
- Governments may pass laws to alleviate the effects of negative externalities.
- Government may limit the amounts of certain pollutants released into water and air by individual firms or make it mandatory to use pollution control devices.

> ➢ Government may insist that the polluting firms install pollution-abatement mechanisms to ensure adherence to the emission standards.
>
> ➢ Governments may also form special bodies/ boards to specifically address the problem: for instance the Ministry of Environment & Forest, the Pollution Control Board of India and the State Pollution Control Boards.

(II) The market-based approaches – environmental taxes and cap-and-trade – operate through price mechanism to create an incentive for change. In other words, the government tries to alter the prices of goods through taxes and subsidies and thus change the behaviour of market participants. This is achieved by:

1. Setting the price directly through a pollution tax

2. Setting the price indirectly through the establishment of the cap-and-trade system.

Pollution taxes are also called as..

➢ Pollution taxes are difficult to determine and administer .

➢ If the demand for the good is inelastic, the tax may have only an insignificant effect in reducing demand.

➢ Pollution taxes also have potential negative consequences on employment

The second approach to establishing prices indirectly is 'tradable emissions permits'. You might have heard of 'carbon credits'. The use of tradable permits to limit emissions is often called 'cap and trade'.

Each firm has permits specifying the number of units of emissions that the firm is allowed to generate.

Tradable permits have been used since the early 1980s to reduce several types of pollution in the United States. In 1994 the United States began a cap and trade system for sulphur dioxide emissions that cause acid rain by issuing permits to power plants based on their historical consumption of coal. India does not have an explicit carbon price or a market-based mechanism such as cap-and-trade; but India has many schemes and mechanisms that put an implicit price on carbon. For example, the Perform, Achieve & Trade (PAT) scheme, carbon tax in the form of a cess on coal, lignite and peat, Renewable Purchase Obligations (RPO) and Renewable Energy Certificates (REC), Internal Carbon Pricing (ICP) etc. In 2017, the coal cess was abolished and replaced by the GST compensation cess since it failed to achieve the desired outcomes. The

Energy Conservation (Amendment) Bill, 2022 empowers the central government to specify a carbon credit trading scheme and to stipulate energy consumption standards.

The cap and trade method is administratively cheap and simple to implement and ensures that pollution is minimised in the most cost-effective way.

So far we have been discussing about negative externality. We shall now look into positive externality.

When positive externalities are present, government may attempt to solve the problem through -

➢ corrective subsidies to the producers aimed at increasing the supply of the good

➢ corrective subsidies to consumers aimed at increasing the demand for the good.

E.g. fertilizer subsidy. A subsidy on fee for education is an example of consumption subsidy.

2.8 GOVERNMENT INTERVENTION IN THE CASE OF MERIT GOODS

Merit goods are goods that have substantial positive externalities and hence they are socially desirable. Merit goods can be provided through the market, but are likely to be under-produced and under-consumed through the market mechanism so that social welfare will not be maximized. Examples of merit goods include education, health care, welfare services, housing, fire protection, waste management, public libraries, museum, public parks etc.

The ultimate encouragement to consume is to make the good completely free at the point of consumption: for example freely available hospital treatment for various diseases. When merit goods are directly provided free of cost by government, there will be substantial demand for the same.

2.9 GOVERNMENT INTERVENTION IN THE CASE OF DEMERIT GOODS

Demerit goods are goods which are believed to be socially undesirable. Examples of demerit goods are cigarettes, alcohol, intoxicating drugs etc.

However, it should be kept in mind that all goods with negative externalities are not essentially demerit goods; e.g. Production of steel causes pollution, but steel is not a socially undesirable good.

How do governments correct market failure resulting from demerit goods?

➢ At the extreme, the <u>government may enforce complete</u> ban on a demerit good. e.g. the possession, trading or consumption of intoxicating drugs is made illegal.

➢ Through persuasion which is mainly intended to be achieved by <u>negative advertising campaigns</u> which emphasize the dangers associated with consumption of demerit goods.

➢ <u>Through legislations</u> that prohibit the advertising or promotion of demerit goods in whatsoever manner.

➢ <u>Strict regulations</u> of the market for the good may be put in place so as to limit access to the good, especially by vulnerable groups such as children and adolescents.

➢ <u>Regulatory controls</u> in the form of spatial restrictions e.g. smoking in public places, sale of tobacco to be away from schools, and time restrictions under which sale at particular times during the day is banned.

➢ <u>Imposing unusually high taxes</u> on producing or purchasing the good making them very costly and unaffordable to many is perhaps the most commonly used method for reducing the consumption of a demerit good. Refer the GST rates in India for demerit goods, you will find how high they are.

➢ <u>The government can fix a minimum price</u> below which the demerit good should not be exchanged.

The effect of stringent regulation such as total ban is seldom realized in the form of complete elimination of the demerit good; conversely such goods are secretly driven underground and traded in a hidden market.

2.10 GOVERNMENT INTERVENTION IN THE CASE OF PUBLIC GOODS

Direct provision of a public good by government can help overcome the free-rider problem which leads to market failure.

1. Excludable public goods such as parks, universities, museums etc can be provided by government and the same can be financed through entry fees.

2. Some public goods are provided by voluntary contributions and private donations by corporate entities and nongovernmental organisations.

3. Some goods are produced and consumed as public goods and services despite the fact that they can be produced or consumed as private goods.

   Examples are scientific approval of drugs, production of strategic products such as atomic energy, provision of security at airports etc.

2.11 PRICE INTERVENTION: NON-MARKET PRICING

2.12 GOVERNMENT INTERVENTION FOR CORRECTING INFORMATION FAILURE

Governments actively intervene in the market for combating the problem of market failure due to information problems and considering the importance of information in making rational choices. A few examples are:

➢ Government makes it mandatory to have accurate labeling and content disclosures by producers.

E.g.

➢ Mandatory disclosure of information

E.g.

➢ Public dissemination of information to improve knowledge

E.g.

➢ Regulation of advertising and setting of advertising standards

E.g.

2.13 GOVERNMENT INTERVENTION FOR EQUITABLE DISTRIBUTION

One of the most important activities of the government is to redistribute incomes so that there is equity and fairness in the society. Common policy interventions include:

1. progressive income tax,

2. targeted budgetary allocations,

3. unemployment compensation,

4.   transfer payments,

5.   subsidies,

6.   social security schemes,

7.   job reservations,

8.   land reforms,

9.   gender sensitive budgeting etc.

Government intervention in a market that reduces efficiency while increasing equity is often justified because equity is greatly appreciated by society.

Government failure occurs when:

➢   intervention is ineffective causing wastage of resources expended for the intervention

➢   intervention produces fresh and more serious problems

QUESTIONS AND ANSWER

Question 1

Define the concept of market failure. Describe the different sources/reasons of market failure.

Answer

Market failure is a situation in which the free market leads to misallocation of society's scare resources in the sense that there is either overproduction or underproduction of particular goods and services leading to a less than optimal outcome. The reason for market failure lies in the fact though perfectly competitive markets failures are situations in which a particular market, left to itself, is inefficient.

There are two aspects of market failures namely, demand-side market failures and supply side market failures. Demand-side market failures are said to occur when the demand curves do not take into account the full willingness of consumers to pay for a product. Supply-side market failures happen when supply curves do not incorporate the full cost of producing the product.

Following are the four major reasons for market failure:

1. **Market Power:** Market power or monopoly power is the ability of a firm to profitably raise the market price of a good or service over its marginal cost. Firms that have market power are price market and therefore, can charge a price that gives them positive economic profits.

    Market power can cause market to be inefficient because it keeps price higher and output lower than the outcome of equilibrium of supply and demand. In the extreme case, there is the problem of non-existence of markets or missing markets resulting in failure to produce various goods and services, despite the fact that such product and services are wanted by people. For example, the markets for pure public goods do not exist.

2. **Externalities:** Sometimes, the actions of either consumers or producers result in costs or benefits that do not reflect as part of the market price. Such costs or benefits which are not accounted for by the market price are called externalities because they are "external" to the market. In other words, there is an externality when a consumption or production activity which has an indirect effect on other's

consumption or production activities and such effects are not reflected directly in market prices.

The unique feature of an externality is that it is initiated and experienced not through the operation of the price system, but outside the market. Since it occur outside the price mechanism, it has not been compensated for or in word it is un-internalized or the cost (benefit) of it is not borne (paid) by the parties.

3. **Public Goods:** Public goods provide a very important example of market failure, in which the self-interested behaviour of individual does not produce efficient results. Consumers can take advantage of public goods without contributing sufficiently to their production. The absence of excludability in the case of public goods and the tendency of people to act in their own self-interest will lead to the problem of free riding. If individuals cannot be excluded from the benefit of a public goods, then they are not likely to express the value of the benefits which they receive as an offer to pay. If every individual plays the same strategy of free riding, the strategy will fail because nobody is willing to pay and therefore, nothing will be provided by the market.

4. **Incomplete Information:** Information failure is widespread in numerous market exchanges. When this happens misallocation of scarce resources takes place and equilibrium price and quantity is not established through price mechanism. This results in market failure. **Asymmetric information** occurs when there is an imbalance in information between buyer and seller i.e. when the buyer knows more than the seller or the seller knows more than the buyer. This can distort choices.

    Adverse selection is a situation in which asymmetric information about quality elimates high-quality goods from a market. Good quality products disappear because they are kept by their owners and sold only to their friends and relatives, eventually market may offer nothing but lemons

    Moral hazard is opportunism characterized by an informed person's taking advantage of a less-informed person through an unobserved action. It arises from lack of information about someone's future behaviour. Moral hazard occurs when an individual knows more about his or her own actions than other people do. This leads to a distortion of incentives to take care or to exert effort when someone else bears the costs of the lack of care or effort.

Question 2

Explain the different types of externalities? Illustrate how externalities lead to welfare loss of markets.

Answer

Anything that one individual does, may have, at the margin, some effect on others. Sometimes, the actions of either consumers or producers result in cost or benefits that do not reflect as part of the market price. Such costs or benefits which are not accounted for by the market price are called externalities because they are "external" to the market. In words, there is an externality when a consumption or production activity has an indirect effect on other's consumption or production activities and such effects are not reflected directly in market prices.

The unique feature of an externality is that it is initiated and experienced not through the operation of the price system, but outside the market. Externalities are also referred to as 'spill over effects', 'neighbourhood effects' 'third-party effects' or 'side-effects'.

Externalities can be positive or negative. Negative externalities occur when the action of one party imposes costs on another party. The four possible types of externalities are:

1. **Negative production externalities:** A negative externality initiated in production which imposes an external cost on others may be received by another in consumption or in production. As an example, a negative production externality occurs when a factory which produces aluminium discharges untreated waste water into a nearby river and pollutes the water causing health hazards for people who use the water for drinking and bathing. Pollution of river also affect fish output as there will be less catch for fishermen due to loss of fish resources. The former is a case where a negative production externality is received in consumption and the latter presents a case of a negative production externality received in production.

2. **Positive production externalities:** A positive production externality initiated in production that confers external benefits on other may be received in production or in consumption.an example of positive production externality received in production; we can see the case of a firm which offers training to its employees for increasing their skills. The firm generates positive benefits on other firm when they hire such workers as they change their jobs..

3. **Negative consumption externalities:** Negative consumption externalities are extensively experienced by us in our day to day life. Such negative consumption externalities initiated in consumption which produce external costs on others may be received in consumption or in production. Smoking cigarettes in public place causing passive smoking by others, creating litter and diminishing the aesthetic value of the room

and playing the radio loudly obstructing one from enjoying a concert are some are instances of negative consumption externalities.

The act of undisciplined students talking and creating disturbance in a class preventing teachers from making effective instruction and the case of excessive consumption of alcohol causing reduction in efficiency for work and production are instances of negative consumption externalities affecting production.

4. **Positive consumption externalities:** A positive consumption externalities initiated in consumption that confers external benefit on others may be received in consumption or in production. For example, if people get immunized against contagious diseases, they would confer a social benefit to others as well by preventing others from getting infected. Consumption of the services of a health club by the employees of a firm would result in an external benefit to the firm in the form of increased efficiency and productivity.

Question 3

Describe why markets have incentives to produce private goods?

Answer

A private good is a product that must be purchased to be consumed, and its consumption by one individual prevents another individual from consuming it. Economist refer goods as rivalrous and excludable. A good is considered to be a private good if there is competition between individual to obtain the good and if consuming the good prevent someone else from consuming it.

A private good is the opposite of a public good. Example of private goods include food, airplane rides and cell phones. Private goods are less likely to experience the free rider problem because a private good has to be purchased; it is not readily available for free. Following are the incentives that accrue to the market in the production of Private Goods:

➤ Owner of private goods can exercise private property right and can prevent others from using the good or consuming their benefits.

➤ Private goods are 'excludable' i.e. it is possible to exclude or prevent consumers who have not paid for them from consuming them or having access to them. A buyer of a private good is forced in a transaction to reveal what he or she is willing to pay for a good or a service.

➤ Private goods do not have the rider problem. This means that the private goods will be available to only those persons who are willing to pay for it.

➤ Normally, the market will efficiently allocate resources for the production of private goods.

➤ The producer and seller will be able to generate more revenue thereby increasing their profit if they are able to increase the market demand for their products.

➤ Market equilibrium can be achieved in the production of private goods wherein the supply will always try to match the quantity demanded.

Question 4

Why do markets fail to produce public goods? Illustrate your answer.

Answer

A public good is a product that one individual can consume without reducing its availability to another individual, and from which no one is excluded. Economist refers to public goods as "non-rivalrous" and "non-excludable." National defence, sewage system, public parks and other basic societal goods can all be considered public goods.

A public good is an item consumed by society as a whole and not necessarily by an individual consumer. Public goods are financed by tax revenues. All public goods must be consumed without reducing the availability of the good to others, and cannot be withheld from people who do directly pay for them.

While public goods are important for a functioning society, there is an issue that arises when these goods are provided, called the free-rider problem. For example, if a person does not pay his taxes, he still benefits from the government's provision of national defence by free riding on the tax payments of his fellow citizens.

Public goods provide a very important example of market failure, in which the self-interested behaviour of individual does not produce efficient results. Consumers can take advantage of public goods without contributing sufficiently to their production.

Question 5

Distinguish between different types of public goods. How do public goods cause market failure?

Answer

A public good is a product that one individual can consume without reducing its availability to another individual, and from which no one is excluded. Economists refer to public goods as "non-rivalrous" and "non-excludable" National defence, sewer systems, public parks and other basic societal goods can all be considered public goods.

A public good is an item consumed by society as a whole and not necessarily by an individual consumer. Public goods are financed by tax revenues.

Public Goods can be classified into the following categories:

1. **Pure Public Goods**: In economics, a pure public good is a good that is both non-excludable and non-rivalrous in that individual cannot be effectively excluded from use and where use by one individual does not reduce availability to others. The concept of pure public good is often criticized by many who point out that such goods are not in fact observable in the real world. They argue that goods which perfectly satisfy non rivalrous and non-excludability are not easy to come across. For example, if the government provides law and order or medical care, the use of law courts or medical care by some individuals subtracts the consumption of others if they need to wait. As another example, we may take defence. If armies are mostly deployed in the northern borders, it may not result in the same amount of protection to people in the south.

2. **Impure Public Goods:** There are many hybrid goods that possess some features of both public and private goods. These goods are called impure goods and are partially rivalrous or congestible. Because of the possibility of congestion, the benefit that an individual gets from an impure public good depends on the number of users. Consumption of these goods by another person reduces, but does not eliminate, the benefits that other people receive from their consumption of the same good. For example, open access Wi-Fi networks become crowded when more people access it. Impure public goods also differ from pure public goods in that they are often excludable.

    An example of an impure public good would be cable television. It is non-rivalrous because the use of cable television by other individual will into way reduce your enjoyment of it. The good is excludable since the cable TV service provider can refuse connection if you do not pay for set top box and recharge it regularly.

3. **Quasi-Public Goods (Mixed Goods):** Quasi Public Goods focuses on the mix services that arise from the provision of the good. For example, if one gets sterilized against measles, it confers not only a private benefit to the individual, but also an external benefit because it reduces the chances getting infected of other person who are in contact with him. You can observe here that the external effect associated with the consumption of a private good may have the characteristic of a public good.

    The quasi-public goods or services, also called a near public (for e.g. education, health services) possess nearly all the qualities of the private goods and some of the benefits of public good. It is easy to keep people away from them by charging a price or fee. However, it is undesirable to keep people away from such goods because the society would be better off if more people consume them.

4. Common Access Resources: Common access resources or common pool resources are a special class of impure public good which are non-excludable as people cannot be excluded from using them. These are rival in nature and their consumption lessens the benefits available for others. This rival nature of common resources is what distinguishes them from pure public goods, which exhibit both non-excludability and non-rivalry in consumption.

Since price mechanism does not apply to common resources, producers and consumer do not pay for these resources and therefore, they overuse them and cause their depletion and degradation. This creates threat to the sustainability of these resources and, therefore, the availability of common access resources for future generations. Economist use them **'tragedy of the commons'** to describe the problem which occurs when rivalrous but non-excludable goods are overuse, to the disadvantage of the entire world. Example of common access resources are fishers, common pastures, rivers, sea, backwaters biodiversity etc.

5. **Global Public Goods:** There are several public goods benefits of which accrue to everyone in the world. These goods have widespread impact on different countries and regions, population groups and generations. These are goods whose impacts are indivisibly spread throughout the entire globe.

The WHO explains two categories of global public goods namely, final public goods which are 'outcomes', (e.g. the eradication of polio) and intermediate public goods, which contribute to the provision of final public goods. (e.g. International Health Regulations aimed at stopping the cross-border movement of communicable diseases and thus reducing cross-border health risks). Similarly, the World Bank identifies five areas of global public goods which it seeks to address: namely, the environmental commons (including the prevention of climate changes and biodiversity), communicable diseases (including HIV/AIDS, tuberculosis, malaria, and avian influenza), international trade, international financial architecture, and global knowledge for development. The distinctive characteristic of global public goods is that there is no mechanism (either market or government) to ensure an efficient outcome.

Question 6

Explain using diagram and examples, the concepts of negative externalities of production and consumption, and the welfare loss associated with the production or consumption of a good or service.

Answer

Negative consumption externalities are extensively experienced by us in our day to day life. Such negative consumption externalities initiated in consumption which produce external costs on others may be received in consumption or in production. Smoking cigarettes in public place causing passive smoking by others, creating litter and diminishing the aesthetic value of the room and playing the radio loudly obstructing one from enjoying a concert are some are instance of negative consumption externalities. The act of undisciplined students talking and creating disturbance in a class preventing teacher from making effective instruction and the case of excessive consumption of alcohol causing impairment in efficiency for work and production are instance of negative consumption externalities affecting production.

Negative externalities cause inefficiency and market failure. If we take the case of a producer, his private cost includes direct cost of labour, material, energy and other indirect overhead. Firms do not have to pay for the damage resulting from the pollution which they generate. As a result, each firm's private cost would be the direct cost of production only which does not incorporate externalities.

Social Cost = Private Cost + External Cost

The equilibrium level of output that would be produced by a free market is Q1 at which marginal private benefit (MPB) is equal to marginal private cost (MPC). Assuming that there are no externalities arising from consumption, we can see that marginal social cost (Q1S) is higher than marginal private cost (Q1E). Social efficiency occurs at Q2 level of output where MSC is equal to MSB.

Output Q1 is socially inefficient because at Q1, the MSC is greater than the MSB and represents over production. The shaded triangle represents the area of dead weight welfare loss. It indicates the area of overconsumption. Thus, we conclude that when there is negative externality, a competitive market failure where prices fall to provide the correct signals.

Question 7

Describe the Free rider problem associated with public goods.

Answer

The incentive to let other people pay for a good or service, the benefit of which are enjoyed by an individual is known as the free rider problem. In other words, free riding is 'benefiting from the actions of others without paying'. A free rider is a consumer or producer who does not pay for a nonexclusive good in the expectation that others will pay.

Public goods provide a very important example of market failure, in which the self-interested behaviour of individual does not produce efficient results. Consumers can take advantage of public goods without contributing sufficiently to their production.

The absence of excludability in the case of public goods and the tendency of people to act in their own self-interest will lead to the problem of free riding. If individual cannot be excluded from the benefit of a public good, then they are not likely to express the value of the benefit which they received as an offer to pay. In other words, they will not express to buy a particular quantity at a price. Briefly put, there is no incentive for people to pay for the good because they can consume it without paying for it. There is an important implication for this behaviour. If every individual plays the same strategy of free riding, the strategy will fail because nobody is willing to pay ad therefore, nothing will be provided by the market. Then, a free ride for any one becomes impossible.

On account of the free problem, there is no meaningful demand curve for public goods. If individual make no offer to pay for public goods, then the profit maximizing firms will not produce them.

In fact, the public goods are valuable for people. If there is no free rider problem, people would be willing to pay for them and they will be produced by the market. As such, if the free-rider problem cannot be solved, the following two outcomes are possible:

1. No public good will be provided in private markets

2. Private markets will seriously under produce public goods even though these goods provide valuable service to the society.

MODULE MULTIPLE CHOICE QUESTIONS

1. 'Market failure' is a situation which occurs when
   (a) private goods are not sufficiently provided by the market
   (b) public goods are not sufficiently provided by public sector
   (c) The market fail to form or they allocate resources efficiently
   (d) (b) and (c) above

2. Which of the following is an example of market failure?
   (a) Prices of goods tend to rise because of shortages
   (b) Merit goods are not sufficiently produced and supplied
   (c) Prices fall leading to fall in profits and closure of firms
   (d) None of the above

3. Which of the following is an outcome of market power?
   (a) makes price equal to marginal cost and produce a positive external benefit on others
   (b) can cause markets to be efficient due to reduction in costs
   (c) makes the firms price makers and restrict output so as to make allocation inefficient
   (d) (b) and(c) above

4. Markets do not exist
   (a) for goods which have positive externalities
   (b) for pure public goods
   (c) for goods which have negative externalities
   (d) none of the above

5. Which of the following is the right argument for provision of public good by government?
   (a) Governments have huge resources at their disposal
   (b) Public goods will never cause any type of externality
   (c) Markets are unlikely to produce sufficient quantity of public goods
   (d) Provision of public goods are very profitable for any government

6. Adequate amount of a pure public good will not be provided by the private market because of

   (a) the possibility of free riding

   (b) the existence of very low prices and low profits

   (c) governments would any way produce them, so there will be overproduction

   (d) there are restrictions as well as taxes on production of public goods

7. The free rider problem arises because of

   (a) ability of participants to produce goods at zero marginal cost

   (b) marginal benefit cannot be calculated due to externalities present

   (c) the good or service is non excludable

   (d) general poverty and unemployment of people

8. A chemical factory has full information regarding the risks of a product, but continues to sell it. This is possible because of

   (a) asymmetric information   (b) moral hazard

   (c) free riding   (d) (a) and (c) above

9. If an individual tends to drive his car in a dangerously high speed because he has a comprehensive insurance cover, it is a case of

   (a) free riding   (b) moral hazard

   (c) poor upbringing   (d) Inefficiency

10. Smoking in public is a case of

   (a) Negative consumption externality (b) Negative production externality

   (c) Internalising externality   (d) None of the above

11. Read the following statements

   I   The market-based approaches to control externalities operate through price mechanism

   II. When externalities are present, the welfare loss would be eliminated

   III. The key is to internalizing an externality is to ensure that those who create the externalities include them while making decisions Of the above statements

   (a) II and III are correct   (b) I only is correct

   (c) II only is correct   (d) I and III are correct

12. Which of the following statements is false?

    (a) Tradable permits provide incentive to innovate and reduce negative externalities

    (b) A subsidy on a good which has substantial positive externalities would reduce its cost and consequently its price would be lower

    (c) Substantial negative externalities are involved in the consumption of merit goods.

    (d) Merit goods are likely to be under-produced and under consumed through the market mechanism

13. Which one of the following would you suggest for reducing negative externality?

    (a) Production subsidies   (b) Excise duty

    (c) Pigouvian taxes   (d) All of the above

14. A Pigouvian subsidy

    (a) cannot be present when externalities are present

    (b) is a good solution for negative externality as prices will increase

    (c) is not measurable in terms of money and therefore not practical

    (d) may help production to be socially optimal when positive externalities are present

15. If governments make it compulsory to avail insurance protection, it is because

    (a) Insurance companies need to be running profitably

    (b) Insurance will generate moral hazard and adverse selection

    (c) Insurance is a merit good and government wants people to consume it

    (d) None of the above

16. The Competition Act, 2002 aims to –

    (a) protect monopoly positions of firms that have developed unique innovations

    (b) to promote and sustain competition in markets

    (c) to determine pricing under natural monopoly.

    (d) None of the above

17. Rules regarding product labelling

    (a) Seeks to correct market failure due to externalities

    (b) Is a method of solving the problem of public good

    (c) May help solve market failure due to information failure

    (d) Reduce the problem of monopolies in the product market

18. Identify the incorrect statement

    (a) A minimum support price for agricultural goods is a market intervention method to guarantee steady and assured incomes to farmers.

    (b) An externality is internalised if the ones that generated the externality incorporate them into their private cost- benefit analysis

    (c) The production and consumption of demerit goods are likely to be less than optimal under free markets

    (d) Compared to pollution taxes, the cap and trade method is administratively cheap and simple to implement and ensures that pollution is minimised in the most cost-effective way.

19. The incentive to let other people pay for a good or service, the benefits of which are enjoyed by an individual

    (a) Is a case of negative externality

    (b) Is a case of market efficiency

    (c) Is a case of free riding

    (d) Is inappropriate and warrant action

20. A government subsidy

    (a) is a market-based policy

    (b) involves the government paying part of the cost to the firms in order to promote the production of goods having positive externalities

    (c) is generally provided for merit goods

    (d) all the above

21. The production and consumption of demerit goods are

    (a) likely to be more than optimal under free markets.

    (b) likely to be less than optimal under free markets

    (c) likely to be subjected to price intervention by government

    (d) (a) and (c) above

22. The argument for education subsidy is based on

    (a) Education is costly

    (b) the ground that education is merit good

    (c) education creates positive externalities

    (d) (b) and (c) above

23. Read the following statements

    I. Social costs are the total costs incurred by the society when a good is consumed or produced.

    II The external costs are not included in firms' income statements or consumers' decisions

    III. Each firm's cost which is considered for determining output would be only private cost or direct cost of production which does not include external costs

    IV. Production and consumption decisions are efficient only when private costs are considered Of the above

    (a) Statements I and III are correct

    (b) Statements I,II and III are correct

    (c) Statement I only is correct

    (d) All the above are correct

24. Government failure occurs when

    (a) Government fails to implement its election promises on policies

    (b) A government is unable to get reelected

    (c) Government intervention is ineffective and produces fresh and more serious problems

    (d) None of the above

ANSWERS:

1	(c)	2	(b)	3	(c)	4	(b)	5	(c)	6	(b)
7	(c)	8	(a)	9	(b)	10	(a)	11	(d)	12	(c)
13	(c)	14	(d)	15	(c)	16	(b)	17	(c)	18	(c)
19	(c)	20	(d)	21	(d)	22	(d)	23	(b)	24	(c)

SUMMARY

> Market failure is a situation in which the free market leads to misallocation of society's scarce resources in the sense that there is either overproduction or underproduction of particular goods and services leading to a less than optimal outcome.

> There are two types of market failure: complete market failure or "missing markets" and partial market failure

> There are four major reasons for market failure. They are: market power, externalities, public goods, and incomplete information.

> Excessive market power causes the single producer or small number of producers to produce and sell less output than what would be produced in a competitive market and charge higher prices.

> Externalities also referred to as 'spill over effects', 'neighbourhood effects' 'third-party effects', or 'side-effects', occur when the actions of either consumers or producers result in costs or benefits that do not reflect as part of the market price.

> Externalities are initiated and experienced, not through the operation of the price system, but outside the market and therefore, are external to the market.

> Externalities can be positive or negative. Negative externalities occur when the action of one party imposes costs on a third party who is not part of the transaction. Positive externalities occur when the action of one party confers benefits a third party.

> The four possible types of externalities are: negative externality initiated in production which imposes an external cost on others; positive production externality, less commonly seen, initiated in production that confers external benefits on others; negative consumption externalities initiated in consumption which produce external costs on others and positive consumption externality initiated in consumption that confers external benefits on others. Each of the above may be received by another in consumption or in production.

> Private cost is the cost faced by the producer or consumer directly involved in a transaction and includes direct cost of labour, materials, energy and other indirect overheads and does not incorporate externalities.

> Social cost is the entire cost which the society bears. Social Cost =Private Cost + External Cost.

- ➤ The firm or the consumer as the case may be, however, has no incentive to account for the external costs that it imposes on others.

- ➤ When firms do not have to worry about negative externalities associated with their production, the result is excess production and unnecessary social costs

- ➤ Public good (also referred to as a collective consumption good or a social good) are those which are indivisible, nonrival, non-excludable and enjoyed in common by all individuals. They are vulnerable to externalities and free rider problems.

- ➤ The incentive to let other people pay for a good or service, the benefits of which are enjoyed by an individual is known as the free rider problem.

- ➤ Private goods are 'rivalrous' 'and excludable' and less likely to have the free r ider problem.

- ➤ Complete information is an essential element of competitive market.

- ➤ Asymmetric information occurs when there is an imbalance in information between the buyer and the seller i.e. when the buyer knows more than the seller or the seller knows more than the buyer. This can distort choices.

- ➤ Adverse selection is a situation in which asymmetric information about quality eliminates high-quality goods from a market. Buyers expect hidden problems in items offered for sale, leading to lower prices and the good quality items being kept off the market.

- ➤ Moral hazard is opportunism characterized by an informed person's taking advantage of a less-informed person through an unobserved action.

- ➤ Asymmetric information, adverse selection and moral hazard affect the ability of markets to efficiently allocate resources and therefore, lead to market failure because the party with better information has a competitive advantage.

- ➤ Governments intervene in various ways to correct market failure.

- ➤ Because of the social costs imposed by monopoly, governments intervene by establishing rules and regulations designed to promote competition and prohibit actions that are likely to restrain competition.

- ➤ Natural monopolies such as electricity, gas and water supplies are usually subject to price controls.

- ➤ Government initiatives towards combating market failures due to negative externalities are either direct controls or market-based policies.

- ➤ Direct controls prohibit specific activities that explicitly create negative externalities or require that the negative externality be limited to a certain level, for instance limiting emissions.

- ➤ Government may pass laws to alleviate the effects of negative externalities or fix

emissions standard which is a legal limit on how much pollutant a firm can emit. It may charge emission fee which is levied on each unit of a firm's emissions.

- The market-based approaches– environmental taxes and cap-and-trade – operate through price mechanism to create an incentive for change.

- The key is to internalizing an externality (both external costs and benefits) is to ensure that those who create the externalities include them while making decisions.

- One method of ensuring internalization of negative externalities is imposing pollution taxes. (Pigouvian taxes). By 'making the polluter pay', pollution taxes seek to internalize external costs into the price of a product or activity.

- Pollution taxes are difficult to determine and administer due to difficulty to discover the right level of taxation, problems associated with inelastic nature of demand for the good and the problem of possible capital flight.

- Tradable emission permits are marketable licenses to emit limited quantities of pollutants and can be bought and sold by polluters. The high polluters have to buy more permits and the low polluters receive extra revenue from selling their surplus permits.

- The system is administratively cheap and simple, allows flexibility and reward efficiency and provides strong incentives for innovation.

- Subsidy is a market-based policy and involves the government paying part of the cost to the firms in order to promote the production of goods having positive externalities.

- Merit goods such as education, health care etc are socially desirable and have substantial positive externalities. Left to the market, merit goods are likely to be underproduced and under- consumed so that social welfare will not be maximized.

- The possible government responses to under-provision of merit goods are regulation, legislation, subsidies, direct government provision and a combination of government provision and market provision.

- Demerit goods are goods which impose significant negative externalities on the society as a whole and are believed to be socially undesirable. The production and consumption of demerit goods are likely to be more than optimal under free markets.

- Steps taken by government to limit demerit goods include complete ban of the good, legislations, persuasion and advertising campaigns, limiting access to the good, especially by vulnerable groups.

- In the case of non excludable pure public goods where entry fees cannot be charged, direct provision by governments through the use of general government tax revenues is the only option.

- A very commonly followed method in the case of excludable public good is to grant licenses to private firms to build a facility and then the government regulates the level of the entry fee chargeable from the public.

- Due to strategic and security reasons, certain goods are produced and consumed as public goods and services despite the fact that they can be produced or consumed as private goods.

- Price controls may take the form of either a price floor (a minimum price buyers are required to pay) or a price ceiling (a maximum price sellers are allowed to charge for a good or service).

- When prices of certain essential commodities rise excessively government may resort to controls in the form of price ceilings (also called maximum price) for making a resource or commodity available to all at reasonable prices.

- With the objective of ensuring stability in prices and distribution, governments often intervene in grain markets through building and maintenance of buffer stocks.

- Government failure occurs when intervention is ineffective causing wastage of resources expended for the intervention and/or when intervention produces fresh and more serious problems. This creates inefficiency and leads to a misallocation of scare resources.

UNIT 3 – THE PROCESS OF BUDGET MAKING: SOURCES OF REVENUE, EXPENDITURE MANAGEMENT AND MANAGEMENT OF PUBLIC DEBT

1. INTRODUCTION

Governments all over the world have to perform manifold functions from protecting their territories, maintaining law and order, provision of public goods and implementation of comprehensive plans for economic and social welfare of its citizens. To execute these functions efficiently, the government requires adequate financial resources. Budget is a powerful policy instrument in the hands of government to regulate and to restructure a country's economic priorities.

The need for budgeting arises from the need to efficiently allocate limited resources to ensure maximum social welfare.

In simple terms, a budget is a statement that presents the details of 'where the money comes from' and 'where the money goes to'.

The budget includes projections for the economy and its various sectors such as agriculture, industry, and services. The budget also contains estimates of the government's accounts for the next fiscal year called budgeted estimates.

Apart from the union budget, state and the local bodies have their own budgetary processes for the next financial year. However, the focus of this unit will be the union budget only.

2. THE PROCESS OF BUDGET MAKING

The finances of the government of India have traditionally been controlled by the Ministry of Finance. The budget is prepared by the Ministry of Finance in consultation with NITI Aayog and other relevant ministries. The budget must be presented and approved by both houses of parliament before the beginning of the fiscal year (April 1 to March 31). Despite the fact that the term 'budget' has not been used in the Indian Constitution, the process of making it is generally referred to as budgeting. Article112 of the constitution provides that in respect of every financial year the 'president shall cause to be laid before both the houses of parliament a statement of the estimated receipts and expenditure of the government of India for that year, referred to as the "Annual Financial Statement".

The budgetary procedures are –

(i)   Preparation of the budget

(ii)   Presentation and enactment of the budget and

(iii)   Execution of the budget.

The budget process mainly consists of two types of activities:

1. The administrative process, wherein the budget along with the accompanying documents are prepared in consultation with various stakeholders;

2. The legislative process wherein the budget is passed by the parliament after discussions.

   Despite the fact that the union budget is presented on1st February (or any other suitable date as decided by the government), the process of budget preparation commences in August-September of the previous year.

The budget is presented in the Parliament in such form as the Finance Ministry may decide after considering the suggestions (if any) of the Estimates Committee. Broadly, the budget documents depict information relating to receipts and expenditure for two years. They are:

(i) Budget estimates (BE) of receipts and expenditure in respect of current and ensuing financial year

(ii) For the current year through Revised Estimates (RE); and

(iii) Actuals of the year preceding the current year

The budget speech of the Finance Minister is usually in two parts.

• Part A of the budget speech gives an outline of the prevailing macro economic situation of the country and the budget estimates for the next financial year. Elaborating the priorities of the government, the minister presents a broad framework of the total funds raised by the government via taxes or borrowings, proposed government expenditure allocations for different sectors and fresh schemes for different sectors.

• Part B of the budget speech details the progress the government has made on various developmental measures, the direction of future policies and the government's tax proposals for the upcoming financial year including variations in the current taxation system.

   The Annual Financial Statement shows the receipts and expenditure of government in three separate parts under which government accounts are maintained, namely:

   1. Consolidated Fund of India

   2. Contingency Fund of India, and the

   3. Public Account.

The list of budget documents presented to the parliament, besides the finance minister's budget speech, is given below:

(a)   Annual Financial Statement (AFS)

(b)   Demands for Grants (DG)

(c)   Finance Bill

(d)   Statements mandated under FRBM Act:

   (i)   Macro -Economic Framework Statement

   (ii)   Medium-Term Fiscal Policy cum Fiscal Policy Strategy Statement

The budget is discussed in two stages in the Lok Sabha.

1.   First, there is the general discussion on the budget as a whole.

2.   After the general discussion on the budget proposals and voting on demands for grants have been completed, the government introduces the Appropriation Bill.

The Finance Bill seeking to give effect to the government's taxation proposals is introduced in Lok Sabha immediately after the presentation of the general budget.

The Parliament has to pass the Finance Bill within 75 days of its introduction.

On the last day of the days allotted for discussion on the demands for grants, the speaker puts all the outstanding demands for grants to the vote of the house. This process is known as 'Guillotine'. It is a device for bringing the debate on financial proposals to an end within a specified time.

After the Finance Bill has been passed by the Lok Sabha, it is transmitted to the Rajya Sabha for Its recommendations. The bill being a money bill, Rajya Sabha has to return it within a period of 14 days, with or without recommendations. The recommendations of Rajya Sabha may be accepted or rejected by the Lok Sabha.

An important budgetary reform was the merger of railway budget with the general budget from the budget for financial year 2017-18.

3. SOURCES OF REVENUE

The Department of Revenue exercises control in respect of matters relating to all the direct and indirect union taxes through two statutory boards, namely,

1. the Central Board of Direct Taxes (CBDT) and
2. the Central Board of Indirect Taxes and Customs (CBIC).

Government receipts are classified under two categories:

1. Revenue receipts which consists of tax revenue and non tax revenue.
2. Capital receipts which consists of debt receipts and non debt capital receipts

The broad sources of revenue are:

1. Corporation tax
2. Taxes on income
3. Wealth tax
4. Customs duties
5. Union excise duties
6. Goods and services tax including GST compensation cess
7. Taxes on union territories

Non-tax revenues comprise the following:

1. Interest receipts,
2. Dividends and profits from public sector enterprises and surplus transfers from Reserve Bank of India
3. Other Non-tax revenues and
4. Receipts of union territories

Capital Receipts include:

1. Non debt capital receipts which include
    (a) Recoveries of loans and advances
    (b) Miscellaneous capital receipts (disinvestments and others)
2. Debt capital receipts which include
    (a) Market loans for different purposes
    (b) Short term /Treasury bill borrowings
    (c) Securities issued against small savings,
    (d) State provident fund (Net)
    (e) Net external debts
    (f) Other receipts (Net)

4. PUBLIC EXPENDITURE MANAGEMENT

A prudent and well designed public expenditure management is essential for any government to ensure that the level of aggregate public expenditure is consistent with a sustainable macroeconomic framework.

Public expenditure management is the process that allows governments to be fiscally responsible.

The economic costs of unproductive public expenditures can be extensive .and may have far reaching effects such as:

- larger deficits
- higher levels of taxation,
- lower economic growth,
- fewer resources available for use elsewhere, and
- greater debt burden in the future.

The Department of Expenditure of the Ministry of Finance is the nodal department for overseeing the public financial management system in the central government and matters connected with state finances. It is responsible for

- the implementation of the recommendations of the Finance Commission and the Central Pay Commission,
- monitoring of audit comments/observations, and
- preparation of central government accounts.
- Additionally, it also assists central ministries/departments in
- controlling the costs and prices of public services,
- reviewing systems and procedures to optimize outputs and outcomes of public expenditure.

The total expenditure through budget (both current and capital) of various ministries and departments is composed of central expenditure and transfers. In Expenditure budget, the Central government expenditure is classified into six broad categories as below:

A. Centre's Expenditure:
- Establishment Expenditure of the Centre;
- Central sector schemes, and
- Other central expenditures including those on CPSEs and Autonomous Bodies

B.   Centrally Sponsored Schemes and other Transfers:

The transfers include

- Centrally sponsored schemes
- Finance Commission transfers and
- Other transfers to states

5.   PUBLIC DEBT MANAGEMENT

In emerging market and developing economies, the government is generally the largest borrower. Government debt from internal and external sources contracted in the Consolidated Fund of India is defined as Public Debt.

The overall objective of the central government's debt management policy is to "meet the central government's financing needs at the lowest possible long term borrowing costs and also to keep the total debt within sustainable levels. Additionally, it aims at supporting development of a well-functioning and vibrant domestic bond market".

The institutions responsible for public debt management are:

1.   Reserve Bank of India – domestic marketable debt i.e., dated securities, treasury bills and cash management bills.
2.   Ministry of Finance (MOF); – external debt
3.   Ministry of Finance; Budget Division and Reserve Bank of India – Other liabilities such as small savings, deposits, reserve funds etc.

The responsibility of managing the domestic debt of the central government and of 28 state governments and two union territories is entrusted with the Internal Debt Management Department (IDMD) of the Reserve Bank of India.

The RBI acts as the debt manager for marketable internal debt. While treasury bills are issued to meet short term cash requirements of the government, dated securities are issued to mobilise longer term resources to finance the fiscal deficit. From 1997 onwards, the Reserve Bank also provides short-term credit up to three months to state governments banking with it in the form of Ways and Means Advances (WMA) to bridge temporary mismatches in cash flows.

External debt (bilateral and multilateral loans) is managed by the Department of Economic Affairs in the Ministry of Finance (MoF). Most of the external debt is sourced from multilateral agencies (International Bank for Reconstruction and Development, Asian Development Bank, etc.). There is no sovereign borrowing from international capital markets.

The Fiscal Responsibility and Budget Management (FRBM) was passed in 2003 to provide a legislative framework for reduction of deficit and thereby debt of the central government to a sustainable level. The objectives of the act are:

* inter-generational equity in fiscal management,
* long run macroeconomic stability,
* better coordination between fiscal and monetary policy, and
* transparency in fiscal operation of the government.

The sheer size of India's public debt can be understood from the following table:

Debt Position of the Government of India   (in ₹ crores)

	As on 31st March 2023	As on 31st March 2024
Internal debt and other liabilities	147,77,724.43	164,23,983.04
External debt#	4,83,397.69	5,22,683.81
Total	152,61,122.12	169,46,666.85

The Reserve Bank has been proactively engaged in the development of the government securities (G-sec) market including broadening of investor participation. As part of continuing efforts to increase retail participation in G-sec, 'RBI Retail Direct' facility was announced on February 5, 2021:

* for improving the ease of access by retail investors through online access to the primary and secondary government securities market
* to provide the facility to open their government securities account ('Retail Direct') with the Reserve Bank.

BUDGET CONCEPTS

Type of budgets

Balanced budget: (Revenue= Expenditure).

Unbalanced budget:

* A **surplus budget:** public revenue exceeds public expenditure.

* A **deficit budget:** government receipts are less than the government expenditure

Capital Receipts:

Capital receipts are those receipts that lead to a reduction in the assets or an increase in the liabilities of the government. Examples include recoveries of loans, earnings from disinvestment and debt.

Revenue Receipts:

Revenue receipts can be defined as those receipts which neither create any liability nor cause any reduction in the assets of the government. There are two sources of revenue receipts for the government – tax revenues and non-tax revenues.

Revenue Expenditure:

Revenue expenditure is expenditure incurred for purposes other than creation of physical or financial assets of the central government.

Capital Expenditure:

There are expenditures of the government which result in creation of physical or financial assets or reduction in financial liabilities.

Budgetary Deficit or Overall Deficit

Revenue Deficit

Revenue deficit = Revenue expenditure – Revenue receipts

Fiscal Deficit

Fiscal deficit = Total Expenditure –Total Receipts excluding borrowing

Primary Deficit

Primary deficit = Fiscal deficit – Net Interest liabilities

Finance Bill

The Bill produced immediately after the presentation of the union budget detailing the Imposition, abolition, alteration or regulation of taxes proposed in the budget.

Outcome budget

The outcome budget establishes a direct link between budgetary allocations of schemes and its annual performance targets measured through output and outcome indicators.

The outcome budget is a progress card on what various ministries and departments have done with the outlays in the previous annual budget.

Guillotine

The parliament has very limited time for examining the expenditure demands of all the ministries. So, once the prescribed period for the discussion on demands for grants is over, the speaker of Lok Sabha puts all the outstanding demands for grants, whether discussed or not, to the vote of the house. This process is popularly known as 'Guillotine'.

Cut Motions

Motions for reduction to various demands for grants are made in the form of cut motions seeking to reduce the sums sought by government on grounds of economy or difference of opinion on matters of policy or just in order to voice a grievance.

Consolidated Fund of India

All revenues received, loans raised and all moneys received by the government in repayment of loans are credited to the Consolidated Fund of India and all expenditures of the government are incurred from this fund.

Contingency Fund of India

A fund placed at the disposal of the President to enable him/her to make advances to the executive/Government to meet urgent unforeseen expenditure.

Public Account

Under provisions of Article 266(1) of the Constitution of India, public account is used in relation to all the fund flows where government is acting as a banker. Examples include Provident Funds and Small Savings.

QUESTIONS AND ANSWER

Question 1

Define the concept of market failure. Describe the different sources/reasons of market failure.

Answer

Market fai

Pending Question

MODULE MULTIPLE CHOICE QUESTIONS

1. The difference between the budget deficit of a government and its debt service payments is
    (a) Fiscal deficit
    (b) Budget deficit
    (c) Primary deficit
    (d) None of the above

    The following hypothetical figures relate to country A

	₹ Crores
Revenue receipts	20,000
Recovery of loans	1,500
Borrowing	15,000
Other Receipts	5,000
Expenditure on revenue account	24,500
Expenditure on capital account	26,000
Interest payments	2,000

2. The revenue deficit for country A is
    (a) 5,000
    (a) 24,000
    (c) 4,500
    (d) None of the above

3. Fiscal deficit of country A is
    (a) 14,000
    (b) 24,000
    (c) 23,500
    (d) None of the above

4. Primary deficit of Country A is
    (a) 26,000
    (b) 26,500
    (c) 22,000
    (d) 24,500

5. In NITI Aayog, NITI stands for
    (a) National Initiative for Transforming India
    (b) National Institution for Transforming India
    (c) National Institute for Technology and Innovation
    (d) None of the above

6. The Appropriation Bill is intended to
    (a) reduce unnecessary expenditure on the part of the government
    (b) give authority to government to incur expenditure from and out of the Consolidated Fund of India
    (c) give authority to government to incur expenditure from the revenue receipts only
    (d) be passed before the budget is taken for discussion

7. Public debt management aims at
    (a) An efficient budgetary policy to avail of domestic debt facilities
    (b) Raising loans from international agencies at lower rates of interest
    (c) Raising the required amount of funding at the desired risk and cost levels
    (d) Management of public expenditure to reduce public debt

8. The railway budget is
    (a) Part of the general budget, but is presented by the railway minister
    (b) Part of the general budget from the budget for financial year 2017-18.
    (c) Part of the general budget from the budget for financial year 2021-22
    (d) Part of the general budget but presented on the next day of the general budget

9. Outcome budgeting
    (a) shares information about the money allocated for various purposes in a budget
    (b) establishes a direct link between budgetary allocations and performance targets measured through output and outcome indicators
    (c) establishes a direct link between budgetary performance targets and public account disbursals
    (d) shares information about public policies and programmes under the budget

10. Corporate tax
    (a) is collected by the union government and can be a capital receipt or revenue receipt
    (b) may be collected by the respective states and fall under revenue receipts
    (c) may be collected either by the centre or states and fall under revenue receipts
    (d) is collected by the union government and is a revenue receipt

11. Government borrowings from foreign governments and institutions

    (a) Capital receipt   (b) Revenue receipt

    (c) Accounts for fiscal deficit

    (d) Any of the above depending on the purpose of borrowing

The following table relates to the revenue and expenditure figures of a hypothetical economy

		In ₹ lakh Crores
(a)	Recovery of loans	5.1
(b)	Salaries of govt. servants	41.1
(c)	Capital Expenditure	45.0
(d)	Interest payments	1.3
(e)	Payments towards subsidies	3.2
(f)	Other receipts (mainly from disinvestment)	11.6
(g)	Tax revenue (net of states' share)	26.3
(h)	Non-tax revenue	12.3
(i)	Borrowings and other liabilities	6.8
(j)	States' share in tax revenue	11.9

12. The capital receipts are

    (a) 23.5   (b) 19.7

    (c) 11.3   (d) None of the above

13. Revenue deficit is

    (a) 23.6   (b) 13.0

    (c) 7.0   (d) 2.6

14. The non-debt capital receipts of this country is

    (a) 45.1   (b) 16.7

    (c) 15.8   (d) None of the above

15. A budget is said to be unbalanced when

    (a) when government's revenue exceeds government's expenditure

    (b) when government's expenditure exceeds government's revenue

    (c) either budget surplus of budget deficit occurs

    (d) All the above

16. Fiscal deficit refers to

    (a) the excess of government's revenue expenditure over revenue receipts

    (b) The excess of total expenditure over total receipts excluding borrowings

    (c) Primary deficit – interest payments

    (d) None of these

17. Budget of the government generally impacts

    (a) the resource allocation in the economy

    (b) redistribution of income and enhance equity

    (c) stability in the economy by measures to control price fluctuations

    (d) all the above

18. Which of the following is a statement submitted along with the budget as a requirement of FRBM Act

    (a) Annual Financial Statement

    (b) Macro –Economic Framework Statement

    (c) Medium–Term Fiscal Policy cum Fiscal Policy Strategy Statement

    (d) (b) and (c) above

19. Government borrowing is treated as capital receipt because

    (a) It is mainly used for creating assets by government

    (b) It creates a liability for the government

    (c) Both (a) and (b) above are correct

    (d) None of the above is correct

20. 'Retail Direct 'scheme is

    (a) Initiated by the Reserve Bank of India

    (b) facilitate investment in government securities by individual investors.

    (c) Direct sale of goods and services by government departments

    (d) Both (a) and (b) are correct

21. Non-debt capital receipts

    (a) do not add to the assets of the government and therefore not treated as capital receipts

    (b) are those that do not create any future repayment burden for the government

    (c) are those that create future liabilities for the government

    (d) facilitate capital investments at low cost

22. Which of the following is a capital receipt?

   (a)   Licence fee received

   (b)   Sale proceeds from disinvestment

   (c)   Assistance from Japan for covid vaccine

   (d)   Dividend from a public sector enterprise

23. Grants given by the central government to state governments is

   (a)   A revenue expenditure as it is meant to meet the current expenditure of the states

   (b)   A revenue expenditure as it does neither creates any asset, nor reduces any liability of the government

   (c)   A capital expenditure because it increase the capital base of the states

   (d)   It is a grant and so does not come under revenue expenditure or capital expenditure.

24. Short-term credit from the Reserve Bank to state governments to bridge temporary mismatches in cash flows is known as

   (a)   RBI credit to states   (b)   Commercial credit of RBI

   (c)   Ways and Means Advances (WMA) (d)   Short term facility

ANSWERS:

1	(c)	2	(c)	3	(b)	4	(c)	5	(b)	6	(b)
7	(c)	8	(b)	9	(b)	10	(d)	11	(a)	12	(a)
13	(c)	14	(b)	15	(d)	16	(d)	17	(d)	18	(d)
19	(b)	20	(d)	21	(b)	22	(b)	23	(b)	24	(c)

Question AND SUMMARY - NO

UNIT 3 – GOVERNMENT INTERVENTION TO CORRECT MARKET FAILURE

Question 1

Explain the intervention strategies of government to bring about efficient market outcomes or to control Market power.

Answer

Freely functioning market produce externalities because producers and consumers need to consider only their private costs and benefit and not the costs imposed on or benefits accrued to others. Governments have numerous methods to reduce the effects of negative externalities and to promote positive externalities. Government regulation can deal with the inefficient that arise from negative externalities.

Market power tends to restrict output and leads to deadweight loss. Because of the social costs imposed by monopoly, governments intervene by establishing rules and regulation designed to promote competition and prohibit actions that are likely to restrain competition. These legislation differ from country to country. For example, in India, we have the Competition Act, 2002 (as amended by the Competition (Amendment) Act, 2007) to promote and sustain competition in markets.

Such legislations generally aim at prohibiting contracts, combinations and collusions among producers or traders which are in restraint of trade and other anticompetitive actions such as predatory pricing.

On the contrary, some of the regulatory responses of government to incentive failure tend to create and protect monopoly position of firms that have developed unique innovations. For example, patent and copyright laws grant exclusive rights of products or processes to provide incentive for invention and innovation.

Policy options for limiting market power also include price regulation in the form of setting maximum price that firms can charge.

Other measures include:

- Market liberalization by introducing competition in previously monopolistic sectors such as energy, telecommunication etc.
- Controls on merger and acquisitions if there is possible market domination
- Price capping and price regulation based on the firm's marginal costs, average costs, past prices, or possible inflation and productivity growth
- Profit or rate of return regulation
- Performance targets and performance standards
- Patronage to consumer associations
- Tough investigation into cartelization and fair practices such as collusion and

predatory pricing

•   Restrictions on monopsony power of firms

•   Reduction in import control and

•   Nationalization

Explain government intervention in case of Negative Production Externality (Pollution)

Government may pass laws to alleviate the effect of negative externalities. Government stipulated environment standards are rules that protect the environment by specifying actions by producers and consumers. For example, India has enacted the Environment (Protection) Act, 1986. The government may, through legislation, fix emission standard which is legal limit on how much pollutant a firm can emit. The set standard ensures that the firm produces efficiently. If the firm exceeds the limit, it can invite monetary penalties or/and criminal liabilities. The firms have pollution-abatement mechanism to ensure adherence to the emission standards. This means additional expenditure to the firm leading to rise in the firm's average cost. New firms will find it profitable to enter the industry only if the price of the product is greater than the average cost of production plus abatement expenditure.

Due to negative production externalities, marginal social cost is greater than marginal private cost. The free market outcome would be to produce a socially non-optimal output level 'Q' at the level of equality between marginal private cost and marginal private benefit. (Since externalities are not taken into account, marginal private benefit would be contemplated as marginal social benefit). When externalities are present, the welfare loss to the society or dead weight loss would be the shaded area 'ABC'. The tax imposed by government (equivalent to the vertical distance AA1) would shift the cost curve up by the amount of tax, price will rise to 'P1' and a new equilibrium is established at point 'B',

where the marginal social cost is equal to marginal social benefit. Output level 'Q1' is socially optimal and eliminates the whole of welfare loss on account of.

What are the problems in administering an efficient pollution tax?

Answer

1) Pollution taxes are difficult to determine and administer ,because it is difficult to Discover right level of taxation

2) The method of taxing polluters involves use of complex and costly administrative procedures

3) This method does not provide any genuine solution to the problem

4) In case of inelastic products producer can easily shift the tax burden on consumers

5) Pollution taxes also have negative impact on employment and investment, as produces may get discouraged and may shift production units to other countries .

Explain Cap and trade (Market based approach)

The second approach to establishing prices is tradable emissions permits (also known as cap-and-trade). These are marketable licenses to emit limited quantities of pollutants and can be bought and sold by polluters. Under this method, each firm has permits specifying the number of units of emissions that the firm is allowed to generate. A firm that generates emissions above what is allowed by the permit is penalized with substantial monetary sanctions. These permits are transferable, and therefore different pollution levels are possible across the regulated entities. Permits are allocated among firms, with the total number of permits so chosen as to achieve the desired maximum level of emissions. By allocating fewer permits than the free pollution level, the regulatory agency creates a shortage of permits which then leads to a positive price for permits. This establishes a price for pollution, just as in the tax case. The high polluters have to buy more permits, which increases their costs, and makes them less competitive and less profitable.

Advantages:

(1) The system allows flexibility and reward efficiency

(2) It is administratively cheap and simple to implement and ensures that pollution is minimised in the most cost-effective way

(3) It also provides strong incentives for innovation.

(4) Consumers may benefit if the extra profits made by low pollution firms are passed on to them in the form of lower prices.

Disadvantages:

(1)　They do not in reality stop firms from polluting the environment;

(2)　They only provide an incentive to them to do so.

(3)　Price level increase of inelastic goods.

Question 2

Role of Government in case of Positive Externalities.

(Effect of Subsidy on output)

Answer

On the other hand subsidies involve government paying part of the cost to the firms in order to promote the production of goods having positive externalities. This is in fact a market-based policy as subsidies to producers would lower their cost of production. A subsidy on a good which has substantial positive externalities would reduce its cost and consequently price, shift the supply curve to the right and increase its output. A higher output that would equate marginal social benefit and marginal social cost is socially optimal. The effect of a subsidy is shown in the following figure:

Subsidy equal to the benefit of externality (S=E) is granted by government to the producer. The output level post subsidy is Q* which equates marginal social benefit with marginal social cost. This is socially optimum level of output.

Question 3

Explain Government intervention in case of Merit goods?

Answer

Merit goods are goods which are deemed to be socially desirable and therefore the government deems that its consumption should be encouraged. Substantial positive externalities are involved in the consumption of merit goods. Left to the market, only

private benefit and private costs would be reflected in the price paid by consumers. This means, compared to what is socially desirable, people would consume inadequate quantities. Example of merit goods includes education, health care, welfare service, housing, fire protection waste management, public libraries, museum and public parks. Merit goods can be provided through the market, but are likely to be under-produced and under-consumed through the market mechanism so that social welfare will not be maximized.

CONSUMPTION OF MERIT GOODS AT ZERO PRICE

When merit goods are directly provided free of cost by government, there will be substantial demand for the same. As can be seen from the following diagram, when people are required to pay the free market price, people would consume only OQ quantity of healthcare. If provided free at zero prices, the demand OD far exceeds supply.

Consumption of Merit Goods at Zero Price

Question 4

Explain Government intervention in case of Demerit goods.

(Determining Minimum price of demerit goods)

Answer

The consumption of demerit goods imposed significant negative externalities on the society as a whole and therefore the private costs incurred by individual consumers are less than the social costs experienced by the society. The production and consumption of demerit goods are likely to be more than optimal under free markets. The price that consumers pay for a packet of cigarettes is market determined and does not account for the social costs that arise due to externalities. In other words, the marginal social cost

will exceed the market price and overproduction and overconsumption will occur, causing misallocation of society's scarce resources. However, it should be kept in mind that all goods with negative externalities are not essentially demerit goods e.g. Production of steel causes pollution, but steel is not a

socially undesirable good. It is found that generally consumers overvalue demerit goods because of imperfect information and they are not the best judges of welfare with respect to such goods. The government should therefore intervene in the marketplace to discourage their production and consumption. Following steps are taken by the government to curb excess production of demerit goods:

➢ Government may enforce complete ban on a demerit good. e.g. Intoxicating drugs. In such cases, the possession, trading or consumption of the good is made illegal.

➢ Through negative advertising campaigns which emphasize the dangers associated with consumption of demerit goods.

➢ Through legislations that prohibit the advertising or promotion of demerit goods in whatsoever manner.

➢ Strict regulations of the market for the good may be put in place so as to limit access to the good, especially by vulnerable groups such as children and adolescents.

➢ Regulatory controls in the form of spatial restrictions e.g. smoking in public places, sale of tobacco to be away from schools, and time restrictions under which sale at particular times during the day is banned.

The government can also impose high taxes on producing or purchasing the good making them very costly and unaffordable to many is perhaps the most commonly used method for reducing the consumption of a demerit good.

PRICE INTERVENTION: NON MARKET PRICING

MINIMUM SUPPORT PRICE   (MSP) (PRICE FLOOR)

(1) Government usually intervenes in many primary markets which are subject to extreme as well as unpredictable fluctuations in price.

(2) For example in India, in the case of many crops the government has initiated the Minimum Support Price (MSP) programme as well as procurement by government agencies at the set support prices

(3) The objective is to guarantee fixed and assured incomes to farmers. In case the market price falls below the MSP, then the guaranteed MSP will prevail.

Market Outcome of Minimum Support Price

MAXIMUM PRICE (PRICE CEILING)

(1) When prices of certain essential commodities rise excessively, government may resort to controls in the form of price ceilings (also called maximum price) for making a resource or commodity available to all at reasonable prices.

(2) For example: maximum prices of food grains and essential items are set by government during times of scarcity. A price ceiling which is set below the prevailing market clearing price will generate excess demand over supply.

Market Outcome of Price Ceiling

Question 5

Do you think government intervention in market will help enhance social welfare? Substantiate your argument.

Answer

Yes, government intervention in market will help enhance social welfare.

Government plays a vital role in creating the basic framework within which fair and open competitive markets can exist. It is indispensable that government establishes the 'rule of law', and in this process, creates and protects property rights, ensures that contracts are upheld and sets up necessary institution for proper functioning of markets.

Policy options for limiting market power also include price regulation in the form of setting maximum prices that firms can charge. Price regulation is most often used for natural monopolies that can produce the entire output of the market at a cost that is lower than what it would be if there were several firms.

Following measures adopted by the government to achieve desired distributional effects:

❖ A progressive direct tax system ensures that those who have greater ability to pay contribute more towards defraying the expenses of government and that the tax burden is distributed fairly among the population.

❖ Indirect taxes can be differential: for example, the commodities which are primarily consumed by richer income group, such as luxuries, are taxed heavily and the commodities the expenditure on which form a larger proportion of the income of the lower income group, such as necessities, are taxed light.

❖ A carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of the society. This is done through spending programmes targeted on welfare measures for the disadvantaged, such as:

➢ Poverty alleviation programmes

➢ Free or subsidized medical care, education, housing, essential commodities etc. to improve the quality of living of poor

➢ Infrastructure provision on a selective basis

➢ Various social security schemes under which people are entitled to old-age pensions, unemployment relief, sickness allowance etc.

➢ Subsidized production of product of mass consumption

➢ Public production and/or grant of subsidies to ensure sufficient supply of essential goods

UNIT – 4: FISCAL POLICY

4.1 INTRODUCTION

Fiscal policy is the deliberate policy of the government under which it uses the instruments of taxation, public expenditure and public borrowing to influence both the pattern of economic activity and level of aggregate demand, output and employment. Fiscal policy is in the nature of a demand-side policy.

The significance of fiscal policy as a strategy for achieving certain socio economic objectives was not recognized or widely acknowledged before 1930 due to the faith in the limited role of government advocated by the then prevailing laissez-faire approach.

4.2 OBJECTIVES OF FISCAL POLICY

The most common objectives of fiscal policy are:

➢ Achievement and maintenance of full employment,

➢ maintenance of price stability,

➢ acceleration of the rate of economic development, and

➢ equitable distribution of income and wealth,

Governments may directly as well as indirectly influence the way resources are used in an economy. Fiscal policy is a powerful tool for managing the economy because of its ability to influence the total amount of output produced viz. gross domestic product. The ability of fiscal policy to influence output by affecting aggregate demand makes it a potential instrument for stabilization of the economy.

4.3 TYPES OF FISCAL POLICY

(a) Expansionary Fiscal Policy:

Expansionary fiscal policy is designed to stimulate the economy during the contractionary phase of a business cycle or when there is an anticipation of a business cycle contraction.

➢ The government may cut all types of taxes, direct and indirect, leaving the taxpayers with extra money to spend so that there is more purchasing power and more demand for goods and services. Consequently aggregate demand, output and employment increase.

➢ An increase in government expenditure (discussed in detail below) will pump money into the economy and increase aggregate demand. This in turn will increase output and employment.

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> A combination of increase in government spending and decrease in personal income taxes and/or business taxes.

(b)   Contractionary fiscal policy:

Contractionary fiscal policy is designed to restrain the levels of economic activity of the economy during an inflationary phase or when there is anticipation of a business-cycle expansion which is likely to induce inflation.

Contractionary fiscal policy works through:

> Decrease in government spending: With decrease in government spending, the total amount of money available in the economy is reduced which in turn has the effect of reducing the aggregate demand.

> Increase in personal income taxes and/or business taxes: An increase in personal income taxes reduces disposable incomes leading to fall in consumption spending and aggregate demand. An increase in taxes on business profits reduces the surpluses available to businesses, and as a result, firms' investments shrink causing aggregate demand to fall. Increased taxes also dampen the prospects of profits of potential entrants who will respond by holding back fresh investments.

> A combination of decrease in government spending and increase in personal income taxes and/or business taxes.

4.4   THE INSTRUMENTS OF FISCAL POLICY

4.4.1 Government Expenditure as an Instrument of Fiscal Policy-

Government may spend money on performance of its large and ever-growing functions and also for deliberately bringing in stabilization.

During a recession, it may initiate a fresh wave of public works, such as construction of roads, irrigation facilities, sanitary works, ports, electrification of new areas etc. Government expenditure involves employment of labour as well as purchase of multitude of goods and services. These expenditures directly generate incomes to labour and suppliers of materials and services.

Additionally, a programme of public investment will strengthen the general confidence of businessmen and consequently their willingness to invest. Primary employment in public works programmes will induce secondary and tertiary employment, and before long the economy is put on an expansion track.

Public expenditure is also used as a policy instrument to reduce the severity of inflation and to bring down the prices.

4.4.2 Taxes as an Instrument of Fiscal Policy

Taxes form the most important source of revenue for governments. Taxation policies are effectively used for establishing stability in an economy.

During inflation, new taxes can be levied and the rates of existing taxes are raised to reduce disposable incomes and to wipe off the surplus purchasing power. However, excessive taxation usually stifles new investments and therefore the government has to be cautious about a policy of tax increase.

4.4.3 Public Debt as an Instrument of Fiscal Policy

A rational policy of public borrowing and debt repayment is a potent weapon to fight inflation and deflation. Public debt may be internal or external; when the government borrows from its own people in the country, it is called internal debt. On the other hand, when the government borrows from outside sources, the debt is called external debt. Public debt takes two forms namely, market loans and small savings.

4.4.4 Budget as an Instrument of Fiscal Policy

Government's budget is widely used as a policy tool to stimulate or contract aggregate demand as required.

A government's budget can either be balanced, surplus or deficit.

➢ A balanced budget results when expenditures in a year equal its tax revenues for that year. Such a budget will have no net effect on aggregate demand since the leakages from the system in the form of taxes collected are equal to the injections in the form of expenditures made.

➢ A budget surplus that occurs when the government collects more than what it spends, though sounds like a highly attractive one, has in fact a negative net effect on aggregate demand since leakages exceed injections.

➢ A budget deficit wherein the government expenditure in a year is greater than the tax revenue it collects has a positive net effect on aggregate demand since total injections exceed leakages from the system.

4.4.5 Fiscal Policy for Long-run Economic Growth:

Fiscal policy influence economic growth through its effects on the incentives faced by individuals and firms. For example;

1. building a modern infrastructure
2. education, healthcare, nutrition, research and development etc. provide momentum for long-run economic growth through human capital formation
3. saving and investment.
4. A well designed tax policy that rewards innovation and entrepreneurship,
5. Tax and spending policies (e.g. subsidies)
6. Increase in environment taxes
7. Subsidies on inputs and support prices to producers (e.g. farmers) generate higher output.

4.4.6 Fiscal Policy for Reduction in Inequalities of Income and Wealth

Government revenues and expenditure have traditionally been regarded as important instruments for carrying out desired redistribution of income.

1. A progressive direct tax.
2. Indirect taxes can be differential.
3. poverty alleviation programmes
4. free or subsidized medical care, education, housing, essential commodities etc. to improve the quality of living of the poor
5. infrastructure provision on a selective basis (e.g. rural roads, water supply for tribal area)
6. various social security schemes under which people are entitled to old-age pensions, unemployment relief, sickness allowance etc.
7. subsidized production of products of mass consumption
8. public production and/ or grant of subsidies to ensure sufficient supply of essential goods, and
9. strengthening of human capital for enhancing employability etc.

4.4.7 Limitations of Fiscal Policy

1. lags
   (a) Recognition lag
   (b) Decision lag
   (c) Implementation lag
   (d) Impact lag

2. Fiscal policy changes may at times be badly timed.

3. Difficulties in instantly changing governments' spending and taxation policies.

4. practically difficult to reduce government spending on various items such as defence and social security

5. Public works cannot be adjusted easily.

6. Supply-side economists are of the opinion that certain fiscal measures will cause disincentives.

7. Deficit financing increases the purchasing power people.

8. Increase is government borrowing creates perpetual burden.

4.4.8 Crowding Out

Some economists are of the opinion that government spending would sometimes substitute private spending and when this happens the impact of government spending on aggregate demand would be smaller than what it should be. In such cases, fiscal policy may become ineffective.

Substantial government borrowing in the credit market tends to reduce the amount of funds available and pushes the interest rates up. Higher interest rates slow down business investment expenditures and consumption expenditures that are sensitive to interest rates. An increase in the size of government spending during recessions will 'crowd-out' private spending in an economy. In other words, when spending by government in an economy replaces private spending, the latter is said to be crowded out.

QUESTIONS AND ANSWER

Question 1

Define the term 'recessionary gap' and 'inflationary gap'. What would be the appropriate fiscal policy measures to eliminate recessionary gap' and 'inflationary gap'? Illustrate your answer.

Answer

A **recessionary gap**, is said to exist if the existing level of aggregate production is less than what would be produced with full employment of resources. It is a measure of output that is lost when actual national income falls short of potential income, and represents the difference between the actual aggregate demand and the aggregate demand which is required to establish the equilibrium at full employment level of income. This gap occurs during the contractionary phase of business-cycle and results in higher rates of unemployment. In other words, recessionary gap occurs when the aggregate demand is not sufficient to create condition of full employment.

The inflationary gap is a situation when the demand for goods and services exceeds production due to factors such as higher levels of overall employment, increased trade activities or increased trade activities or increased government expenditure. This can lead to the real GDP exceeding the potential GDP, resulting in an inflationary gap. The inflationary gap is so named because the relative increased in real GDP causes an economy to increase its consumption, which causes price to rise in the long run.

Due to the higher number of funds available within the economy, consumers are more inclined to purchase goods and services. As the demand for goods and services increases but production has yet to compensate for the shift, prices rise in order to restore market equilibrium.

An expansionary fiscal policy is used to address recessionary gap and the problem of general unemployment on account of business cycles.

Question 2

List out the factors that limits the effectiveness of fiscal policy? Explain the possible impacts on private sector? (Limitations)

Answer

Discretionary fiscal policy is the conscious manipulation of government spending and taxes to influence the economy. However, there are some significant limitation in respect of choice and implementation of fiscal policy. These limitations are as follows:

1. One of the biggest problems with using discretionary fiscal policy to counteract fluctuations is the different types of lags involved in fiscal-policy action. There are significant lags are:

    ➢ Recognition lag: The economy is a complex phenomenon and the state of the macroeconomic variable is usually not easily comprehensible. Just as in case of any other policy, the government must first recognize the need for a policy change.

    ➢ Decision lag: Once the need for intervention is recognized, the government has to evaluate the possible alternative policies. Delays are likely to occur to decide on the most appropriate policy.

    ➢ Implementation lag: even when appropriate policy measures are decided on, there are possible delays in bringing in legislation and implementing them.

    ➢ Impact lag: impact lag occurs when the outcomes of a policy are not visible for some time.

2. Fiscal policy changes may at time be badly timed due to the various lags so that it is highly   possible that an expansionary policy is initiated when the economy is already on a path   of recovery and vice versa.

3. There are difficulties in instantaneously changing government' spending and taxation policies.

4. It is practically difficult to reduce government spending on various items such as defence and social security as well as on huge capital project which are already midway.

5. Public works cannot be adjusted easily along with movements of the trade cycle because many huge projects such as highway and dams have long gestation period. Besides, some urgent public project cannot be postponed for reasons of expenditure cut to correct fluctuation caused by business cycles.

6. Due to uncertainties, there are difficulties of forecasting when period of inflation or deflation may set in and also promptly determining the accurate policy to be undertaken.

7. There are possible conflicts between different objectives of fiscal policy such that a policy designed to achieve one goal may adversely affect another. For example, an expansionary fiscal policy may worsen inflation in an economy.

8. Supply-side economists are of the opinion that certain fiscal measures will cause disincentives. For example, increase in profits tax may adversely affect the incentives of firms to invest and an increase in social security benefits may adversely affect incentives to work and save.

9. Deficit financing increases the purchasing power of people. The production of goods and services, especially in under developed countries may not catch up simultaneously to meet the increased demand. This will result in price spiraling beyond control.

10. Increase is government borrowing creates perpetual burden on even future generations as debts have to be repaid. If the economy lags behind in productive utilization of borrowed money, sufficient surpluses will not be generated for servicing debts. External debt burden has been a constant problem for India and many developing countries.

Question 3

Explain Crowding out effect.

Answer

Crowding out effect is the negative effect fiscal policy may generate when money from the private sector is crowded out' to the public sector. In other words, when spending by government in an economy replaces private spending the latter is said to be crowded out. For example, if government provided free computers to students, the demand from students for computers may not be forthcoming. When government increases it's spending by borrowing from the loanable funds from market, the demand for loans increases and this pushes the interest rates up. Private investments are sensitive to interest rates and therefore some private investment spending is discouraged.

Similarly, when government increases the budget deficit by selling bonds or treasury bills, the amount of money with the private sector decreases and consequently interest rates will be pushed. As a result, private investment, especially the ones which are interest-sensitive, will be reduced.

Question 4

Explain Government Expenditure as an Instrument of Fiscal Policy

Public expenditures are income generating and include all types of government expenditure such as capital expenditure on public works, relief expenditures, subsidy payments

of various types, transfer payments and other social security benefits. Government expenditure is an important instrument of fiscal policy. It includes governments' expenditure towards consumption, investment, and transfer payments. Government expenditures include:

1. current expenditures to meet the day to day running of the government,

2. capital expenditures which are in the form of investments made by the government in capital equipments and infrastructure, and

3. transfer payments i.e. government spending which does not contribute to GDP because income is only transferred from one group of people to another without any direct contribution from the receivers.

Government may spend money on performance of its large and ever-growing functions and also for deliberately bringing in stabilization. During a recession, it may initiate a fresh wave of public works, such as construction of roads, irrigation facilities, sanitary works, ports, electrification of new areas etc. Government expenditure involves employment of labour as well as purchase of multitude of goods and services. These expenditures directly generate incomes to labour and suppliers of materials and services. Apart from the direct effect, there is also indirect effect in the form of working of multiplier. The incomes generated are spent on purchase of consumer goods. The extent of spending by people depends on their marginal propensity to consume (MPC)

Question 5

Explain Pump Priming and Compensatory Spending.

A distinction is made between the two concepts of public spending during depression, namely, the concept of 'pump priming' and the concept of 'compensatory spending'. Pump priming involves a one-shot injection of government expenditure into a depressed economy with the aim of boosting business confidence and encouraging larger private investment. It is a temporary fiscal stimulus in order to set off the multiplier process. The argument is that with a temporary injection of purchasing power into the economy through a rise in government spending financed by borrowing rather than taxes, it is possible for government to bring about permanent recovery from a slump. Pump priming was widely used by governments in the post-war era in order to maintain full employment; however, it became discredited later when it failed to halt rising unemployment and was held responsible for inflation. Compensatory spending is said to be resorted to when the government spending is deliberately carried out with the obvious intention to compensate for the deficiency in private investment.

Question 6

Explain Public Debt as an Instrument of Fiscal Policy

A rational policy of public borrowing and debt repayment is a potent weapon to fight inflation and deflation. Public debt may be internal or external; when the government borrows from its own people in the country, it is called internal debt. On the other hand, when the government borrows from outside sources, the debt is called external debt. Public debt takes two forms namely, market loans and small savings.

In the case of market loans, the government issues treasury bills and government securities of varying denominations and duration which are traded in debt markets. For financing capital projects, long-term capital bonds are floated and for meeting short-term government expenditure, treasury bills are issued.

The small savings represent public borrowings, which are not negotiable and are not bought and sold in the market. In India, various types of schemes are introduced for mobilising small savings e.g., National Savings Certificates, National Development Certificates, etc. Borrowing from the public through the sale of bonds and securities curtails the aggregate demand in the economy. Repayments of debt by governments increase the availability of money in the economy and increase aggregate demand.

Question 7

Explain Taxes as an Instrument of Fiscal Policy

Taxes form the most important source of revenue for governments. Taxation policies are effectively used for establishing stability in an economy. Tax as an instrument of fiscal policy consists of changes in government revenues or in rates of taxes aimed at encouraging or restricting private expenditures on consumption and investment. Taxes determine the size of disposable income in the hands of the general public which in turn determines aggregate demand and possible inflationary and deflationary gaps. The structure of tax rates is varied in the context of the overall economic conditions prevailing in an economy. During recession and depression, the tax policy is framed to encourage private consumption and investment. A general reduction in income taxes leaves higher disposable incomes with people inducing higher consumption. Low corporate taxes increase the prospects of profits for business and promote further investment. The extent of tax reduction and /or increase in government spending required depends on the size of the recessionary gap and the magnitude of the multiplier.

Question 8

Explain Budget as an Instrument of Fiscal Policy

Government's budget is widely used as a policy tool to stimulate or contract aggregate demand as required. The budget is simply a statement of revenues earned from taxes and other sources and expenditures made by a nation's government in a year. The net effect of a budget on aggregate demand depends on the government's budget balance. A government's budget can either be balanced, surplus or deficit. A balanced budget results when expenditures in a year equal its revenues for that year. Such a budget will have no net effect on aggregate demand since the leakages from the system in the form of taxes collected are equal to the injections in the form of expenditures made. A budget surplus that occurs when the government collects more than what it spends, though sounds like a highly attractive one, has in fact a negative net effect on aggregate demand since leakages exceed injections. A budget deficit wherein the government expenditure in a year is greater than the tax revenue it collects has a positive net effect on aggregate demand since total injections exceed leakages from the government sector.

TYPES OF FISCAL POLICY

Expansion fiscal policy:

1. It is adopted during economic recession or depression.
2. Under this policy, the government may lower the tax rates or increase the public expenditure or do both. These measures are basically intended to simulate the economy.
3. Through this policy, the government encourages investment, which in turn boosts output and employment, which further increases aggregate demand, and thereby economy begins to grow.
4. Expansion fiscal policy will be successful only if there is accommodative monetary policy.
5. Working of expansionary fiscal policy can be seen the following diagram:

Contractionary fiscal policy:

1. It is adpoted during inflation (where aggregate demand rises beyond what economy can produce).

2. Under this policy, the government may increases the tax rates or reduce the public expendutire or do both. These measures are basiclly intended to restrian the level of economic activity.

3. Through this policy, th governemt discourages investement, which in turn lowers the output and employment, which further reduces the aggregate demand, hereby, economy begins to slow down and inflation is controlled.

4. Working of contractionary fiscal policy can be seen in the following diagram:

5. Inflationary gap refer to the situation whereby scale rise in consumption and investment enhances aggregate demand beyond what economy can potentially produce tends to cause extensive price hike. Contractionary fiscal policy aims to eliminate such inflationary gap.

The Government Spending Multiplier:

Spending multiplier (also known as Keynesian or fiscal policy multiplier) represent the multiple by which GDP increases or decreases in response to an increase and decrease in government expenditure and investment, holding the real money supply constant. Quantitatively, the government spending multiplier is the same as the investment multiplier. It is the reciprocal of the marginal propensity to save (MPS). Higher the MPS, lower the multiplier, and lower the MPS, higher the multiplier.

$$\frac{\Delta y}{\Delta G} = \frac{1}{MPS} = \frac{1}{1.MPC} = \frac{1}{1.b}$$

Where,

MPS stand for marginal propensity to save (MPS); and

MPC is marginal propensity to consume

MPS equal 1 − MPS

Numerical Illustration

Q.1] Illustration1.

Assume that the MPC is equal to 0.6.

(a) What is the value of government spending multiplier?

(b) What impact would a 50 billion increase in government spending have on equilibrium GDP?

(c) What about a 50 billion decrease in government spending?

Solution:

(a) $\dfrac{1}{MPS} = \dfrac{1}{1.MPC}$

= 1/(1 − 0.6) = 1/0.4 = **2.5**

(b) & (c) Change in GDP = Initial Change in Spending x (1 − MPC)

Q.2] Illustration 2.

If country X has a marginal propensity to consume of 0, what is the value of fiscal multiplier?

Solution:

Given MPC = 0; MPS = (1-0) = 1

The spending multiplier = 1. There is no multiplier effect

Q.3] Illustration 3.

Average per capita income of country Y rose from 42,300 to 50,000 and the corresponding figure for per capita consumption rose from 35,400 to 42,500. Find the spending multiplier of this economy.

Solution:

Spending multiplier = 1/(1-MPC).

MPC = Increase in Consumption / Increase in Income.

= (42,500 − 35,400) / (50,000 − 42,300)

= 0.922

Multiplier = 1/(1 − 0.922) = 1/(0.078) = 12.83

Question 9

Explain the role fiscal policy in achieving economic stability.

Answer

Fiscal policy involves the use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate demand, output and employment. It includes any design on the part of the government to change the price level, composition or timing of government expenditure or to alter the burden, structure or frequency of tax payment. In other words, fiscal policy is designed to influence the pattern and level of economic activity in a country.

The economy does not always work smoothly. There often occurs fluctuation in the level of economic activity. At time the economy finds itself in the grip of recession when levels of national income, output and employment are far below their full potential levels. During recession, there is lot of idle or un-utilized productive capacity, that is, available machines and factories are not working to their full capacity. As a result, unemployment of labour increases along with the existence of excess capital stock.

On the other hand, at time the economy is 'overheated which means inflation (i.e. rising price) occurs in the economy. Thus, in a free market economy there is a lot of economy ic instability. The classical economists believed that an automatic mechanism works to restore stability in the economy; recession would cure itself and inflation will be automatically controlled.

Explain Non-discretionary Fiscal policy or Automatic Stabilizer

1. Non-discretionary fiscal policy or Automatic Stabilizer are that part of the structure of the economy which have built in fiscal mechanism that operates automatically to reduce expansions and Contractions

2. In Most of the economies changes in the level of taxation and the level of govt spending tends to occur automatically

3. Any govt programme that automatically tends to reduce fluctuations in GDP is called as Automatic Stabilizer

4. Automatic Stabilizer have a tendency to increase GDP when it is falling and reduce GDP when it is rising

5. It involves built in tax and expenditure mechanism that automatically increases aggregate demand when there is Recession and reduces aggregate demand when there is Inflation

6. Automatic Stabilizer occurs through automatic adjustments in Public expenditure and taxes without any govt interference.

FISCAL POLICY FOR REDUCTION OF INEQUALITES:

1. Fiscal policy can play vital role in redistribution of income so as to ensure social justice.

2. Fiscal policy has direct (through taxes) as well as indirect impact (through other fiscal policy measures) on income distribution.

3. Government can use following measures to achieve the desired distribution of income and wealth:

    i. **Progressive direct tax system:** Higher the income, higher the taxes. Ensure that taxes are based on ability to pay and tax burden is distributed fairly among the population.

    ii. **Indirect taxes can be differential:** Commodity mainly consumed by rich can be taxed heavily (E.g. luxury goods) while those consumed by lower income groups (E.g. necessities) can be taxed light.

    iii. **Public expenditure policy:** This policy help in redistributing income from the rich to the poor through spending programmes targeted on welfare measures, such as :

        a. Poverty alleviation programmes.
        b. Free or subsidized medical care, education, housing etc.
        c. Infrastructure provision on a selective basis.
        d. Various social security (old age pension, unemployment benefits etc.)
        e. Subsidized production of mass consumption goods.
        f. Public production / providing subsidies for supply of essential goods.

MODULE MULTIPLE CHOICE QUESTIONS

1. Fiscal policy refers to the
   (a) use of government spending, taxation and borrowing to influence the level of economic activity
   (b) government activities related to use of government spending for supply of essential goods
   (c) use of government spending, taxation and borrowing for reducing the fiscal deficits
   (d) and (b) above

2. If real GDP is continuously declining and the rate of unemployment in the economy is increasing, the appropriate policy should be to
   (a) Increase taxes and decrease government spending
   (b) Decrease both taxes and government spending
   (c) Decrease taxes and increase government spending
   (d) Either (a) or (c)

3. Which of the following are likely to occur when an economy is in an expansionary phase of a business cycle?
   (A) Rising unemployment rate
   (B) Falling unemployment rate
   (C) Rising inflation rate
   (D) Deflation
   (E) Falling or stagnant wage for workers
   (F) Increasing tax revenue
   (G) Falling tax revenue
   (a) A, B and F are most likely to occur
   (b) B, C and F are most likely to occur
   (c) D, E and F are most likely to occur
   (d) A, E and G are most likely to occur

4. During recession the fiscal policy of the government should be directed towards
   (a) Increasing the taxes and reducing the aggregate demand
   (b) Decreasing taxes to ensure higher disposable income

(c) Increasing government expenditure and increasing taxes

(d) None of the above

5. According to Keynesian economics, when we have inflation an effective fiscal policy should not include

(a) increase corporate taxes.

(b) decrease aggregate demand.

(c) Increase government purchases.

(d) None of the above is correct

6. Keynesian economists believe that

(a) fiscal policy can have very powerful effects in altering aggregate demand, employment and output in an economy

(b) when the economy is operating at less than full employment levels and when there is a need to offer stimulus to demand fiscal policy is of great use

(c) Wages are flexible and therefore business fluctuations would be automatically adjusted

(d) (a) and (b) above

7. Which of the following may ensure a decrease in aggregate demand during inflation?

(a) decrease in all types of government spending and/ or an increase in taxes

(b) increase in government spending and/ or a decrease in taxes

(c) decrease in government spending and/ or a decrease in taxes

(d) All the above

8. A recession is characterized by

(a) Declining prices and rising employment

(b) Declining unemployment and rising prices

(c) Declining real income and rising unemployment.

(d) Rising real income and rising prices

9. Which one of the following is an example of fiscal policy?

(a) A tax cut aimed at increasing the disposable income and spending

(b) A reduction in government expenditure to contain inflation

(c) An increase in taxes and decrease in government expenditure to control inflation

(d) All the above

10. Which of the following would illustrate a recognition lag?
    (a) The time required to identify the appropriate policy
    (b) The time required to identify to pass a legislation
    (c) The time required to identify the need for a policy change
    (d) The time required to establish the outcomes of fiscal policy

11. An expansionary fiscal policy, taking everything else constant, would in the short-run have the effect of
    (a) a relative large increase in GDP and a smaller increase in price
    (b) a relative large increase in price, a relatively smaller increase in GDP
    (c) both GDP and price will be increasing in the same proportion
    (d) both GDP and price will be increasing in a smaller proportion

12. Which statement (s) is (are) correct about crowding out?
    I. A decline in private spending may be partially or completely offset by the expansion of demand resulting from an increase in government expenditure.
    II. Crowding out effect is the negative effect fiscal policy may generate when money from the private sector is 'crowded out' to the public sector.
    III When spending by government in an economy increases government spending would be crowded out.
    IV. Private investments, especially the ones which are interest –sensitive, will be reduced if interest rates rise due to increased spending by government
    (a) I and III only   (b) I, II, and III
    (c) I, II, and IV   (d) III only

13. Which of the following policies is likely to shift an economy's aggregate demand curve to the right?
    (a) Increase in government spending
    (b) Decrease in taxes
    (c) A tax cut along with increase in public expenditure
    (d) All the above

14. Identify the incorrect statement
    (a) A progressive direct tax system ensures economic growth with stability because it distributes the burden of taxes unequally

(b)   A carefully planned policy of public expenditure helps in redistributing income from the rich to the poorer sections of the society.

(c)   There are possible conflicts between different objectives of fiscal policy such that a policy designed to achieve one goal may adversely affect another

(d)   An increase in the size of government spending during recessions may possibly 'crowd-out' private spending in an economy.

15.   Read the following statements

I.   Fiscal policy is said to be contractionary when revenue is higher than spending i.e., the government budget is in surplus

II.   Other things constant, a fiscal expansion will raise interest rates and "crowd out" some private investment

III.   During inflation new taxes can be levied and the rates of existing taxes are raised to reduce disposable incomes

IV.   Classical economists advocated contractionary fiscal policy to solve the problem of inflation

Of the above statements

(a)   I and II are correct   (b)   I, II and III are correct

(c)   Only III is correct   (d)   All are correct

16.   While resorting to expansionary fiscal policy

(a)   the government may possibly have a budget surplus as increased expenditure will bring more output and more tax revenue

(b)   the government may run into budget deficits because tax cuts reduce government income and the government expenditures exceed tax revenues in a given year

(c)   it is important to have a balanced budget to avoid inflation and bring in stability

(d)   None of the above will happen

17.   Contractionary fiscal policy

(a)   is resorted to when government expenditure is greater than tax revenues of any particular year

(b)   increase the aggregate demand to sustain the economy

(c)   to increase the disposable income of people through tax cuts and to enable greater demand

(d)   is designed to restrain the levels of economic activity of the economy during an inflationary phase

18. When government spending is deliberately reduced to bring in stability
    (a) the government is resorting to contractionary fiscal policy
    (b) the government is resorting to expansionary fiscal policy
    (c) trying to limit aggregate demand to sustainable levels
    (d) (a) and c) above

19. An increase in personal income taxes
    (a) reduces disposable incomes leading to fall in consumption spending and aggregate demand
    (b) is desirable during inflation or when there is excessive levels of aggregate demand
    (c) is to compensate the deficiency in effective demand by boosting aggregate spending
    (d) both a) and b) are correct

20. While the government resorts to deliberate fiscal policy it may not attempt to manipulate
    (a) Government expenditures on public works
    (b) The rates of personal income taxes and corporate taxes
    (c) Government expenditures on goods and services purchased by government
    (d) The rate of interest prevailing in the economy

21. Which of the following fiscal remedy would you advice when an economy is facing recession
    (a) the government may cut interest rates to encourage consumption and investment
    (b) the government may cut taxes to increase aggregate demand
    (c) the government may follow a policy of balanced the budget.
    (d) None of the above will work

22. While if governments compete with the private sector to borrow money for securing resources for expansionary fiscal policy
    (a) it is likely that interest rates will go up and firms may not be willing to invest
    (b) it is likely that interest rates will go up and the individuals too may be reluctant to borrow and spend
    (c) it is likely that interest rates will go up and the desired increase in aggregate demand may not be realized
    (d) All the above are possible.

ANSWERS:

| 1	(a)	2	(c)	3	(b)	4	(b)	5	(c)	6	(d)
7	(a)	8	(c)	9	(d)	10	(c)	11	(a)	12	(c)
13	(d)	14	(a)	15	(b)	16	(b)	17	(d)	18	(d)
19	(d)	20	(d)	21	(b)	22	(d)				

SUMMARY

➢ Fiscal policy involves the deliberate use of government spending, taxation and borrowing to influence both the pattern of economic activity and level of growth of aggregate demand, output and employment.

➢ Laissez-faire approach advocated limited role of government resulting in non recognition of the significance of fiscal policy as a strategy for achieving certain socio economic objectives till 1930.

➢ Through the use budgetary instruments such as public revenue, public expenditure, public debt and deficit financing, governments intend to favourably influence the level of economic activity of a country.

➢ The objectives of fiscal policy may vary from country to country, but generally they are: achievement and maintenance of full employment, maintenance of price stability, acceleration of the rate of economic development and equitable distribution of income and wealth.

➢ Since GDP = C + I + G + NX, governments can influence economic activity (GDP), by controlling G directly and influencing C, I, and NX indirectly, through changes in taxes, transfer payments and expenditure.

➢ The Keynesian school is of the opinion that fiscal policy can have very powerful effects in altering aggregate demand, employment and output in an economy when the economy is operating at less than full employment levels and when there is a need to offer a stimulus to demand.

➢ The tools of fiscal policy are taxes, government expenditure, public debt and the budget.

➢ Expansionary fiscal policy is designed to stimulate the economy during the contractionary phase of a business cycle and is accomplished by increasing aggregate expenditures and aggregate demand through an increase in all types of government spending and / or a decrease in taxes.

➢ Contractionary fiscal policy is designed to restrain the levels of economic activity of the economy during an inflationary phase by decreasing the aggregate expenditures and aggregate demand through a decrease in all types of government spending and/ or an increase in taxes.

➤ A recession sets in with a period of declining real income, as measured by real GDP and a situation of rising unemployment.

➤ A recessionary gap, also known as a contractionary gap, is said to exist if the existing levels of aggregate production is less than what would be produced with the full employment of resources.

➤ Government expenditure, an important instrument of fiscal policy, generates incomes and also has indirect effect in the form of working of multiplier.

➤ Taxes determine the size of disposable income in the hands of general public which in turn determines aggregate demand and possible inflationary and deflationary gaps.

➤ During recession and depression, the tax policy is framed to encourage private consumption and investment. A general reduction in income taxes and lower corporate taxes increase aggregate demand and investments respectively.

➤ During inflation new taxes can be levied and the rates of existing taxes may be raised to reduce disposable incomes and to wipe off the surplus purchasing power.

➤ Borrowing from the public through the sale of bonds and securities curtails the money available for spending which in turn reduces the aggregate demand in the economy. Repayment of debts increases the availability of money in the economy and increase aggregate demand.

➤ Budget is widely used as a policy tool to stimulate or to contract aggregate demand as required.

➤ Fiscal Policy also aims to attain long-run economic growth through policies to stimulate aggregate supply.

➤ Fiscal policy is a chief instrument available for governments to influence income distribution and plays a significant role in reducing inequality and achieving equity and social justice.

➤ Contractionary fiscal policy is aimed at eliminating inflationary gaps and to trim down the aggregate demand by decrease in government spending and an increase in personal income taxes and/or business taxes causing less disposable incomes and lower incentives to invest.

➤ Fiscal policy suffers from limitations such as limitations in respect of choice of appropriate policy, recognition lag, decision lag, implementation lag, impact lag, inappropriate timing, difficulties of forecasting due to uncertainties, possible conflicts between different objectives, possibility of generating disincentives, practical difficulty to reduce government expenditures and the possibility of certain fiscal measures replacing private spending.

➢ An increase in the size of government spending during recessions will 'crowd-out' private spending in an economy. In other words, when spending by government in an economy replaces private spending, the latter is said to be crowded out.

➢ As a result of crowding out, the effectiveness of expansionary fiscal policy in stimulating aggregate demand will be diminished to a great extent. This may also possibly reduce the economy's prospects of long-run economic growth.

➢ During deep recessions, crowding-out is less likely to happen as private sector investment is already minimal and therefore there is only insignificant private spending to crowd out.
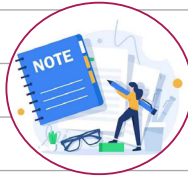
Speak Your Mind

Chapter 8
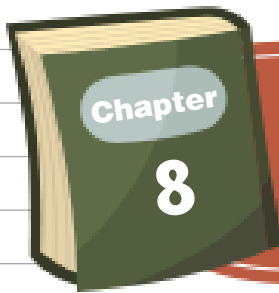
MONEY MARKET

UNIT 1 – THE CONCEPT OF MONEY DEMAND

INTRODUCTION

Money may make the world go around, it plays an essential role in causing the things in life to work as they should; to underlie the fulfilment of the needs of human existence. And most people in the world probably have handled money, many of them on a daily basis. But despite its familiarity, probably few people could tell you exactly what money is, or how it works.

In short, money can be anything that can serve as a

(1) store of value, which means people can save it and use it later—smoothing their purchases over time;

(2) unit of account, that is, provide a common base for prices; or

(3) medium of exchange, something that people can use to buy and sell from one another.

FIAT MONEY

Until relatively recently, gold and silver were the main currency people used. Gold and silver are heavy, though, and over time, instead of carrying the actual metal around and exchanging it for goods, people found it more convenient to deposit precious metals at banks and buy and sell using a note that claimed ownership of the gold or silver deposits. Anyone who wanted to could go to the bank and get the precious metal that backs the note. Eventually, the paper claim on the precious metal was delinked from the metal. When that link was broken, fiat money was born. Fiat money is materially worthless, but has value simply because a nation collectively agrees to ascribe a value to it. In short, money works because people believe that it will.

DEFINE MONEY AND DESCRIBE ITS NATURE AND CHARACTERISTICS

Money is all the center of every economic transaction and plays a significant role in all economies. In simple terms money refers to assets which are commonly used and accepted

as a means of payment or as a medium of exchange or of transferring purchasing power. For policy purposes, money may be defined as the set of liquid financial assets, the variation in the stock of which will impact on aggregate economic activity.

Money has generalized purchasing power and is generally acceptable in settlement of all transactions and in discharge of other kind of business obligations including future payments.

Anything that would act as a medium of exchange is not necessarily money. For example, a bill of exchange may also be a medium, but it is not money since it is not generally accepted as a means of payment. Money is a totally liquid asset as it can be used directly, instantly, conveniently and without any cost or restriction to make payment.

At the fundamental level, money provides us with a convenient means to access goods and services. There are **some general characteristics** that money should possess in order to make it serve its function as money. Money should be:

➢ Generally acceptable
➢ Durable or long lasting
➢ Effortlessly recognizable
➢ Difficult to counterfeit i.e. easily reproducible by people
➢ Relatively scarce, but has elasticity of supply
➢ Portable or easily transported
➢ Possessing uniformity, and
➢ Divisible into smaller parts in usable quantities or fractions without losing value.

EXPLAIN THE FUNCTION PERFORMED BY MONEY:

The following points highlight some of the important functions of money:

1. **Medium of Exchange:** Money is a convenient medium of exchange or it is an instrument that facilitates easy exchange of goods and services. Money, though not having any inherent power to directly satisfy human wants, by acting as a medium of exchange, it commands purchasing power and its possession enables us to purchase goods and services to satisfy our wants.

   By acting as an intermediary, money increases the ease of trade and reduces the inefficiency and transaction costs involved in a barter exchange. By decomposing the single barter transaction of sales and purchase, money eliminates the need for double coincidence of wants. Money also facilities separation of transaction both in time and place and this in turn enables us to economize on time and efforts involved in transactions.

2. **Unit of Account:** Money is an explicitly defined unit of value or unit of account. Put differently, money is a common measure of value' or 'common denominator of value' or money function as a numeracies. We know, Rupee is the unit in India in which the entire money is denominated.

The monetary unit is the unit of measurement in terms of which the value of all goods and services is measured and expressed. The value of each good or service is expressed as price, which is nothing but the number of monetary units for which the good or service can be exchanged.

It is convenient to trade all commodities in exchange for a single commodity. So also, it is convenient to measure the price of all commodities in terms of a single unit, rather than record the relative price of every good in terms of every other good.

3. **Standard of deferred payment:** Money serves as a unit or standard of deferred payment i.e. money facilitates recording of deferred promises to pay. Money is the unit in terms which future payment are contracted or stated. However, variation in the purchasing power of money due to inflation or deflation, reduce the efficacy of money in this function.

4. **Store Value:** Like nearly all other assets, money is a store of value. People prefer to hold it as an asset, that is, as part of their stock of wealth. This splitting of purchases and sales in to two transaction involves a separation in the both time and space. This separation is possible because money can be used as a store of value or store of means of payment during the intervening time. Again, rather than spending one's money at present, one can store it for use at some future time.

'THE QUANTITY THEORY OF MONEY IS NOT THEORY ABOUT MONEY AT ALL, RATHER IT IS THEORY OF THE PRICE LEVEL' ELUCIDATE.

The quantity theory of money, one of the oldest theories in Economics, was first propounded by Irving Fisher of Yale University in his book 'The Purchasing Power of Money' published in 1911 and later by the neoclassical economist. Both versions of the QTM demonstrate that there is strong relationship between money and price level and the quantity of money is the main determinant of the price level or the value of money. In other words, changes in the general level of commodity prices or changes in the value or purchasing power of money are determined first and foremost by changes in the quantity of money in circulation.

Fisher's version, also termed as 'equation of exchanges' or 'transaction approach' is formally stated as follows:

MV = PT

Where, M= the total amount of money in circulation (on an average) in an economy

V = transaction velocity of circulation i.e. the average number of times across all transaction a unit of money (say Rupee) is spent in purchasing goods and services

P = average price level (P=MV/T)

T = the total number of transactions.

Later, Fisher extended the equation of exchange to include demand (bank) deposite (M') and their velocity (V') in the total supply of money. Thus, the expanded form of the equation of exchange becomes:

MV + M'V' = PT

Where M' = the total quantity of credit money

V' = velocity of circulation of credit money.

The total supply of money in the community consists of the quantity of actual money (M) and its velocity of circulation (V). Velocity of money in circulation (V) and the velocity of credit money (V') remain constant. T is a function of national income. Since full employment prevails, the volume of transaction T is fixed in the short run. Briefly out, the total volume of transaction (T) multiplied by the price level (P) represents the demand for money. The demand for money (PT) is equal to the supply of money (MV + M'V'). In any given period, the total value of transaction made is equal to PT and the value of money flow is equal to MV+M'V'.

Thus from the above discussion it can be clearly concluded that the Quantity Theory of Money (QTM) states that there is a direct relationship between the quantity of money in an economy and the level of price of goods and services sold.

EXPLAIN NEO CLASSICAL THEORY OF DEMAND OF MONEY.

The Cambridge approach: In the early 1900s, Cambridge Economists Alfred Marshall, A.C. Pigou, D.H. Robertson and John Maynard Keynes (then associated with Cambridge) put forward a fundamentally different approach to quantity theory, known as neoclassical theory or cash balance approach. The Cambridge version holds that money increases utility in the following two ways:

(a)   enabling the possibility of split-up of sale and purchase to two different points of time rather than being simultaneous, and

(b)   being a hedge against uncertainty.

While the fist above represents transaction motive, just as Fisher envisaged, the second points to money's role as a temporary store of wealth. Since sale and purchase of commodities by individuals do not take place simultaneously, they need a 'temporary adobe' of purchasing power as a hedge against uncertainty. As such, demand for money also involves a precautionary motive in Cambridge approach. Since money gives utility in its store of wealth and precautionary modes, one can say that money is demanded for itself.

The Cambridge equation is stated as:

Where

Md = is the demand for money

Y = real national income

P = averages price level of currently produced goods and services

PY = nominal income

K = proportion of nominal income (PY) that people want to hold as cash balances

The term 'k' in the above equation is called 'Cambridge k'. The equation above explains that the demand for money (M) equals k proportion of the total money income.

EXPLAIN KEYNESIAN APPROACH OF DEMAND OF MONEY OR LIQUIDITY THEORY BY KEYNES

Keynesian Approach

↓

Liquidity preference Approach

↓

J.M.Keynes (1936)

↓

General theory of employment Interest money.

[Demand for money both as a medium of exchange & store of value]

Transaction motive

People require money to carry out transaction at all types but most of them receive income once is a month sometimes once in a week or even daily in case of daily wage earners.

There is a time gap between two successive Income receipts but not between the expenses incurred on various transaction. Transaction motive is divided in to two parts,

(1)   Income motive

(2)   Business motive

Income motive:

It refers to transaction demand for money by wages and salary earners. They receive their Income once in a month, in few cases weekly or daily. Money is required for these people to carry out transaction at all kind they may incur regular payment like Rent, electricity, grossary bill & other payments. Suppose the time interval between Income receipts is a month. People required to hold money with them to meet the daily payments. Money held for this purpose gradually decline over the period.

Business motive:

Business firms required to hold money to meet their day to day transaction. The time interval of a firm may be a month or two or even longer as there is always a time gap between production and realization of its value. Meanwhile they are required to keep money for payment of various bills such as electricity, rent, raw material, wages etc. The amount of money held for transaction motive depends on three factors.

1.	Level of income	2.	Time interval	3.	Price level

Precautionary motive:

It is necessary to be cautious about future which is uncertain. Uncertainity is an important element in Keynesian precautionary motive and additional amount of money over and above for a known -requirement is held for contingencies, sudden expenditure, illness, accident or to grab opportunity of advantageous purchase money may also be required at a time of temporary unemployment.

Business people hold cash with them to meet any unforeseen expenditure or to take advantage of favourable market condition when price declines. A firm's precautionary demand for money is influenced by political uncertainty. When political conditions are unstable business firms tend to be more cautious and hold larger amount of cash. The demand for money for transaction & precautionary motive is directly related to income.
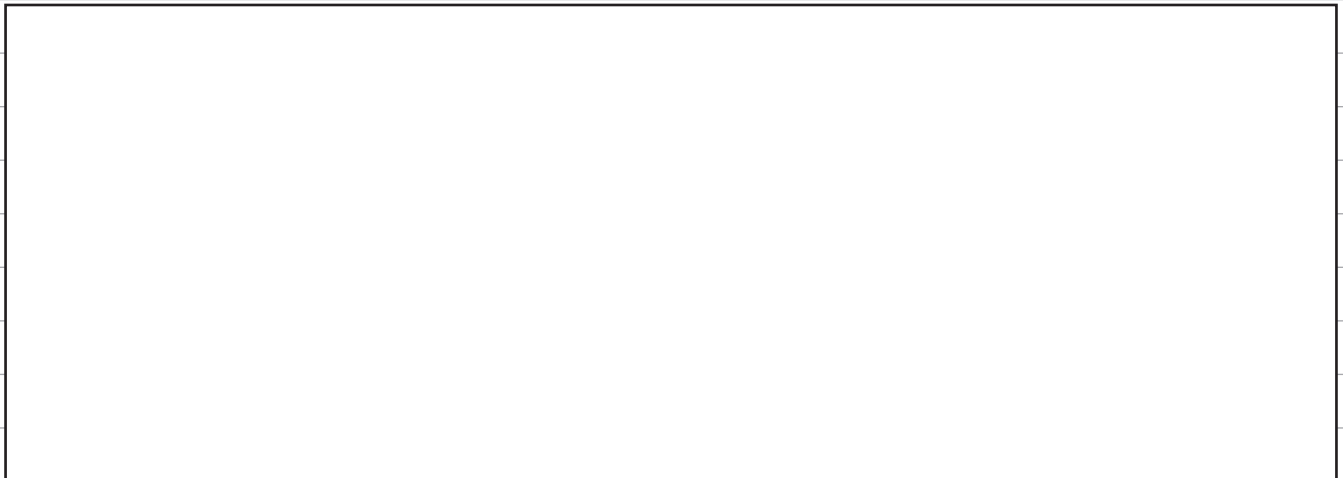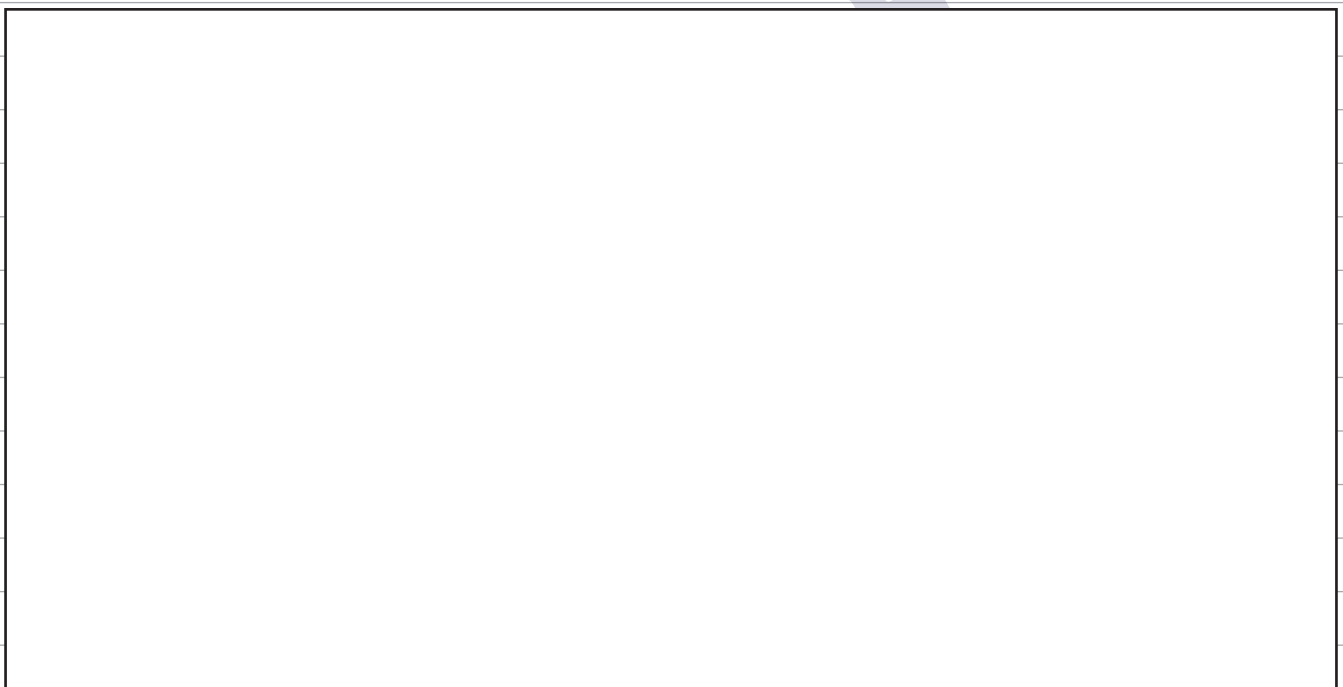
Income Elastic
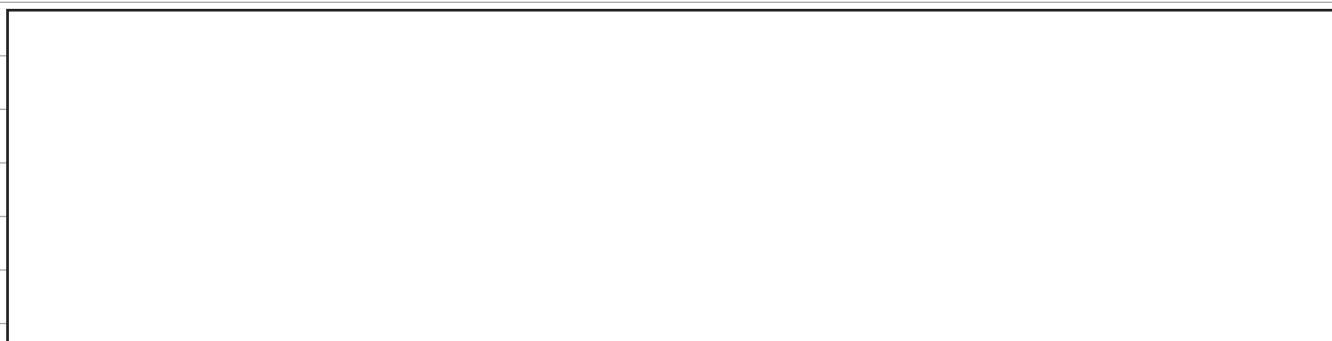
Demand for money for transaction & precautionary motive

The combined demand for transaction & precautionary motive is expressed as L1 = F(Y)

The demand for money for these motives is not influenced by rate of interest.

Interest inelastic

Demand for money for transaction & precautionary motive

Demand for money for speculative motive

➢ Demand for money for speculative motive is related to store of value function of money.

➢ Speculative demand is also known as Asset demand for money

➢ People have the alternative to hold the either cash or financial asset like government bonds & equities

➢ Speculative demand also relates to uncertainty

➢ The cash held under this motive is used to make speculative gain by dealing on bond whose price fluctuates.

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➢ If bond prices are expected to rise, businessman will buy bonds on other hand is bond price are expected to fall, businessman will sell bonds to avoid capital losses.

➢ However Market interest rate is expected to fall, businessman will buy bonds, if interest rate is expected to rise they will sell bonds. This implies that bond price and MRI are inversely related to each other

Market rate interest vs BONDS

BONDS	MRI ------- FD
↓ 1000/- x 5% = 50/-	10% 8% (**ROI rises**) 7.5% 5.5% 500×10% =50/-

➢ Equal amount of return (i.e.) Rs. 50 will be earned by making a financial investment of just Rs. 500 hence a Rs.1,000 bond value has declined to Rs. 500

➢ Keynes assumes that at very high rate interest (low bond price) all other asset holder will be bulls

➢ On other hand, at low rate of interest (high bond price) all other asset holder will be bears

➢ Speculative demand for money increases as market interest rate fall and vice versa. Demand for money held under speculative motive is as demand for idle cash balance $L_2 = F(r) \rightarrow$ Rate of interest

List out the factor that determine the demand for money in the Baumol-Tobin analysis of transactions demand for money? How does a change in each affect the quantity of money demanded?

Baumol (1952) and Tobin (1956) developed a deterministic theory of transaction demand for money, known as Inventory Theoretic Approach, in which money or 'real cash balance' was essentially viewed as an inventory held for transaction purposes. Inventory models assume that there are two media for storing value:

(1) Money and

(2) An interest-bearing alternative financial asset.

There is a fixed cost of making transfers between money and the alternative assets e.g. broker charges. While relatively liquid financial assets other than money (such as, bank deposits) offer a positive return, the above said transaction cost of going between money and these assets justifies holding money.

Baumol used business **inventory approach** to analyze the behaviour of individual. Just as businesses keep money to facilitate their business transactions, people also hold cash balance which involves an opportunity cost in terms of lost interest. Therefore, they hold an optimum combination of bonds and cash balance, i.e., an amount that minimizes the opportunity cost.

Excess cash over and above what is required for transaction during the period under consideration will be invested in bonds or put in an interest-bearing account. Money holding on an average will be lower if people hold bonds or other interest yielding assets.

The higher the income, the higher is the average level or inventory of money holdings. The level of inventory holding also depends also upon the carrying cost, which is the interest forgone by holding money and not bonds, net of the cost to the individual of making a transfer between money and bonds, say for example brokerage fee.

The inventory-theoretic approach also suggests that the demand for money and bonds depend on the cost of making a transfer between money and bonds e.g. the brokerage fee. An increase the brokerage fee raises the marginal cost of bond market transactions demand for money and lowers the average bond holding over the period.

To what extent does Friedman's Restatement of the Quantity Theory explain the demand for money?

Milton Friedman (1956) extended Keynes' speculative money demand within the framework of assets price theory. Friedman treat the demand for money as nothing more than the application of a more general theory of demand for capital assets.

Demand for money is affected by the same factors as demand for any other assets, namely

1.   Permanent income.

2.   Relative return on assets. (Which incorporate risk).

Friedman maintains that it is permanent income and not current income that determines the demand for money. Permanent income which is Friedman's measure of wealth is the present expected value of all future income. To Friedman, money is a good as any other durable consumption good and its demand is a function of a great number of factors.

Fried identifies the following four determinates of the demand for money.

The nominal demand for money:

➢   Is a function of total wealth, which is represented by permanent income divided by the discount rate, defined as the average return on the five asset classes in the monetarist theory world, namely money, bond, equity, physical capital and human capital.

➢   Is positively related to the price level, P. If the price level rises the demand for

money increases and vice versa.

➢ Raises if the opportunity costs of money holding (i.e. returns on bonds and stock) decline and vice versa.

➢ Is influenced by inflation, a positive inflation rate reduces the real value of money balances, thereby increasing the opportunity coast of money holdings.

'Risk-avoiding behaviour of individual provided the foundation for the liquidity preference and for a negative relationship between the demand for money and the interest rate' Elucidate with examples.

'Liquidity Preference as Behaviour towards Risk' (1958). Tobin established that the theory of risk-avoiding behaviour of individuals provided the foundation for the liquidity preference and for a negative relationship between the demand for money and the interest rate. The optimal portfolio structure is determined by

1. the risk/reward characteristics of different assets
2. the taste of the individual in maximizing his utility consistent with the existing opportunities

In his theory which analyzes the individual's portfolio allocation between money and bond holdings, the demand for money is considered as a store of wealth. Tobin hypothesized that an individual would hold a portion of his wealth in the form of money in the portfolio because the rate of return on holding money was more certain than the rate of return on holding interest earning assets and entails no capital gains or losses. It is riskier to hold alternative assets vis-a vis holding interest just money alone because government bonds and equities are subject to market price volatility, while money is not.

According to Tobin, rational behaviour of a risk-averse individual induces him to hold an optimally structured wealth portfolio which is comprised of both bond and money. The overall expected return on the portfolio would be higher if the portfolio were all bonds, but an investor who is 'risk-averse' will be willing to exercise a trade-off and sacrifice to some extent the higher return for a reduction in risk. Tobin's theory implies that the amount of money held as an asset depends on the level of interest rate. An increase in the interest rate will improve the terms on which the expected return on the portfolio can be increased by accepting greater risk. In response to the increase in the interest, the individual will increase the proportion of wealth held in the interest-bearing asset, say bonds, and will decrease the holding of money. Tobin's analysis also indicates that uncertainty about future changes in bond prices, and hence the risk involved in buying bonds, may be a determinant of money demand. Just as Keynes' theory, Tobin's theory implies that the demand for money as store of wealth depends negatively on the interest rate.

SHORT NOTE ON LIQUIDITY TRAP: (Diagram same as speculative motive)

Definition:

Liquidity trap is defined as set of points on liquidity preference schedule when the percentage change in demand for money in response to % change in rate of interest is infinite.

The inverse relationship between rate of interest and speculative demand for money transforms in to a different form of relationship, at a very low rate of interest speculative demand for money becomes perfectly elastic. Keynes considered 2% rate of interest as the lowest below which market rate of interest would not decline at such low rate of interest people prefer cash and not securities or any other assets as the risk is far greater than interest offered. At point C the L2 curve become horizontal straight line, and that horizontal part of L2 curve shows liquidity trap.

'There is no unique definition of 'money', either as a concept in economic theory or as measured in practice. Money can be defined for policy purposes as the set of liquid financial assets, the variation in the stock of which could impact on aggregate economic activity. As a statistical concept, money could include certain liquid liabilities of a particular set of financial intermediaries or other issuers'. (Reserve Bank of India Manual on Financial and Banking Statistics, 2007)

MODULE MULTIPLE CHOICE QUESTIONS

1. Choose the incorrect statement
   (a) Anything that would act as a medium of exchange is money
   (b) Money has generalized purchasing power and is generally acceptable in settlement of all transactions
   (c) Money is a totally liquid asset and provides us with means to access goods and services
   (d) Currency which represents money does not necessarily have intrinsic value.

2. Money performs all of the three functions mentioned below, namely
   (a) medium of exchange, price control, store of value
   (b) unit of account, store of value , provide yields
   (c) medium of exchange, unit of account, store of value
   (d) medium of exchange, unit of account, income distribution

3. Demand for money is
   (a) Derived demand   (b) Direct demand
   (c) Real income demand   (d) Inverse demand

4. Higher the _____, higher would be _____of holding cash and lower will be the _____
   (a) demand for money, opportunity cost, interest rate
   (b) price level , opportunity cost, interest rate
   (c) real income , opportunity cost, demand for money
   (d) interest rate, opportunity cost, demand for money

5. The quantity theory of money holds that
   (a) changes in the general level of commodity prices are caused by changes in the quantity of money
   (b) there is strong relationship between money and price level and the quantity of money is the main determinant of the price
   (c) changes in the value of money or purchasing power of money are determined first and foremost by changes in the quantity of money in circulation
   (d) All the above

6. The Cambridge approach to quantity theory is also known as
   (a) Cash balance approach
   (b) Fisher's theory of money
   (c) Classical approach
   (d) Keynesian Approach

7. Fisher's approach and the Cambridge approach to demand for money consider
   (a) money's role in acting as a store of value and therefore, demand for money is for storing value temporarily.
   (b) money as a means of exchange and therefore demand for money is termed as for liquidity preference
   (c) money as a means of transactions and therefore, demand for money is only transaction demand for money.
   (d) None of the above

8. Real money is
   (a) nominal money adjusted to the price level
   (b) real national income
   (c) money demanded at given rate of interest
   (d) nominal GNP divided by price level

9. The precautionary money balances people want to hold
   (a) as income elastic and not very sensitive to rate of interest
   (b) as income inelastic and very sensitive to rate of interest
   (c) are determined primarily by the level of transactions they expect to make in the future.
   (d) are determined primarily by the current level of transactions

10. Speculative demand for money
    (a) is not determined by interest rates
    (b) is positively related to interest rates
    (c) is negatively related to interest rates
    (d) is determined by general price level

11. According to Keynes, if the current interest rate is high
    (a) people will demand more money because the capital gain on bonds would be less than return on money
    (b) people will expect the interest rate to rise and bond price to fall in the future.

(c) people will expect the interest rate to fall and bond price to rise in the future.

(d) Either (a) or (b) will happen

12. The inventory-theoretic approach to the transactions demand for money

(a) explains the negative relationship between money demand and the interest rate.

(b) explains the positive relationship between money demand and the interest rate.

(c) explains the positive relationship between money demand and general price level

(d) explains the nature of expectations of people with respect to interest rates and bond prices

13. According to Baumol and Tobin's approach to demand for money, the optimal average money holding is:

(a) a positive function of income Y and the price level P

(b) a positive function of transactions costs c

(c) a negative function of the nominal interest rate i

(d) All the above

14. _____ considered demand for money is as an application of a more general theory of demand for capital assets

(a) Baumol   (b) James Tobin

(c) J M Keynes   (d) Milton Friedman

15. The nominal demand for money rises if

(a) the opportunity costs of money holdings – i.e. bonds and stock returns, rB and rE , respectively– decline and vice versa

(b) the opportunity costs of money holdings – i.e. bonds and stock returns, rB and rE , respectively– rises and vice versa

(c) the opportunity costs of money holdings – i.e. bonds and stock returns, rB and rE , respectively remain constant

(d) (b) and (c) above

ANSWERS:

1	(a)	2	(c)	3	(a)	4	(d)	5	(d)
6	(a)	7	(c)	8	(a)	9	(a)	10	(c)
11	(c)	12	(a)	13	(d)	14	(d)	15	(a)

SUMMARY

- Money refers to assets which are commonly used and accepted as a means of payment or as a medium of exchange or for transferring purchasing power.

- Money is totally liquid, has generalized purchasing power and is generally acceptable in settlement of all transactions and in discharge of other kinds of business obligations including future payments.

- The functions of money are: acting as a medium of exchange to facilitate easy exchanges of goods and services, providing a 'common measure of value' or 'common denominator of value', serving as a unit or standard of deferred payments and facilitating storing of value both as a temporary abode of purchasing power and as a permanent store of value.

- Money should be generally acceptable, durable, difficult to counterfeit, relatively scarce, easily transported, divisible without losing value and effortlessly recognizable.

- The demand for money is derived demand and is a decision about how much of one's given stock of wealth should be held in the form of money rather than as other assets such as bonds.

- Both versions of the theory of money, namely, the classical approach and the neoclassical approach demonstrate that there is strong relationship between money and price level and the quantity of money is the main determinant of the price level or the value of money.

- Keynes' theory of demand for money is known as the 'liquidity preference theory'. 'Liquidity preference', is a term that was coined by John Maynard Keynes in his masterpiece 'The General Theory of Employment, Interest and Money' (1936).

- According to Keynes, people hold money (M) in cash for three motives: the transactions, precautionary and speculative motives.

- The transaction motive for holding cash is directly related to the level of income and relates to 'the need for cash for the current transactions for personal and business exchange.'

- The amount of money demanded under the precautionary motive is to meet unforeseen and unpredictable contingencies involving money payments and depends on the size of the income, prevailing economic as well as political conditions and personal characteristics of the individual such as optimism/ pessimism, farsightedness etc.

- The speculative motive reflects people's desire to hold cash in order to be equipped to exploit any attractive investment opportunity requiring cash expenditure. The speculative demand for money and interest are inversely related.

- So long as the current rate of interest is higher than the critical rate of interest (rc), a typical wealth-holder would hold in his asset portfolio only government bonds while if the current rate of interest is lower than the critical rate of interest, his asset portfolio would consist wholly of cash.

- Liquidity trap is a situation where the desire to hold bonds is very low and approaches zero, and the demand to hold money in liquid form as an alternative approaches infinity. People expect a rise in interest rate and the consequent fall in bond prices and the resulting capital loss. The speculative demand becomes perfectly elastic with respect to interest rate and the speculative money demand curve becomes parallel to the X axis.

- Baumol (1952) and Tobin (1956) developed a deterministic theory of transaction demand for 'real cash balance', known as Inventory Theoretic Approach, in which money is essentially viewed as an inventory held for transaction purposes.

- People hold an optimum combination of bonds and cash balance, i.e., an amount that minimizes the opportunity cost.

- The optimal average money holding is: a positive function of income Y, a positive function of the price level P, a positive function of transactions costs c, and a negative function of the nominal interest rate i.

- Milton Friedman (1956) extending Keynes' speculative money demand within the framework of asset price theory holds that demand for money is affected by the same factors as demand for any other asset, namely, permanent income and relative returns on assets.

- The nominal demand for money is positively related to the price level, P; rises if bonds and stock returns, rb and re, respectively decline and vice versa; is influenced by inflation; and is a function of total wealth

- The Demand for Money as Behaviour toward 'aversion to risk' propounded by Tobin states that money is a safe asset but an investor will be willing to exercise a trade-off and sacrifice to some extent, the higher return from bonds for a reduction in risk

- According to Tobin, rational behaviour induces individuals to hold an optimally structured wealth portfolio which is comprised of both bonds and money and the demand for money as a store of wealth depends negatively on the interest rate.

UNIT 2 – CONCEPT OF MONEY SUPPLY

From April 1977, following the recommendations of the Second Working Group on Money Supply (SWG), the RBI has been publishing data on four alternative measures of money supply denoted by M1, M2, M3 and M4 besides the reserve money. The respective empirical definitions of these measures are given below:

➢ The **Monetary aggregates** are:

    ✓   M1 = Currency and coins with the people + demand deposits of banks (Current and Saving accounts) + other deposits of the RBI;

    ✓   M2 = M1 + savings deposits with post office savings banks,

    ✓   M3 = M1 + net time deposits of banks and

    ✓   M4 = M3 + total deposits with the Post Office Savings Organization (excluding National Savings Certificates).

Following the recommendations of the Working Group on Money (1998), the RBI has started publishing a set of four new monetary aggregates on the basis of the balance sheet of the banking sector in conformity with the norms of progressive liquidity. The new monetary aggregates are: (**New Monetary aggregates**)

> NM1 = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the RBI.
>
> NM2 = NM1 + time liabilities portion of savings deposit + Certificate of deposit + term deposits maturing within one year – FCNR (B) deposits
>
> NM3 = NM2 + Long-term time deposits of residents + Call/Term funding from financial institutions

Reserve Money / High Powered Money / Monetary Base

RM = Currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI

RM = Net RBI credit to the Government + RBI credit to the Commercial sector + RBI's Claims on banks + RBI's net Foreign assets + Government's Currency liabilities to the public – RBI's net non - monetary Liabilities

The central bank also measures macroeconomic liquidity by formulating various 'liquidity' aggregates in addition to the monetary aggregates. While the instruments issued by the banking system are included in 'money', instruments, those which are close substitutes of

money but are issued by the **Non-banking financial institutions** are also included in **liquidity aggregates.**

L1= NM3 + All deposits with the post office savings banks (excluding National Savings Certificates).

L2= L1 +Term deposits with term lending institutions and refinancing institutions (FIs) + Term borrowing by FIs + Certificates of deposit issued by FIs.

L3 = L2+ Public deposits of non-banking financial companies

Explain MONEY MULTIPLIER in detail

The money supply is defined as

M = m x MB

Where M is the money supply, m is money multiplier and MB is the monetary base or high powered money. From the above equation we can derive the money multiplier (m) as

$$\textit{Money Multiplier (m)} \frac{\text{(Money supply)/}}{\text{(Monetary base)}}$$

Definition

Money multiplier is defined as a ratio that relates the changes in the money supply to a given change in the monetary base. It denotes by how much the money supply will change for a given change in high-powered money. The multiplier indicates what multiple of the monetary base is transformed into money supply.

If some portion of the increase in high-powered money finds its way into currency, this portion does not undergo multiple deposit expansion. In other words, as a rule, an increase in the monetary base that goes into currency is not multiplied, whereas an increase in monetary base that goes into supporting deposits is multiplied.

The money multiplier approach to money supply propounded by **Milton Friedman and Anna Schwartz, (1963)** considers three factors as immediate determinants of money supply, namely:

(a)   the stock of high-powered money (H)

(b)   the ratio of reserves to deposits, e = {ER/D} and

(c)   the ratio of currency to deposits , c ={C/D}

(a)   The Behaviour of the Central Bank

The behaviour of the central bank which controls the issue of currency is reflected in the supply of the nominal high-powered money. Money stock is determined by the money multiplier and the monetary base is controlled by the monetary authority. If the behaviour of the public and the commercial banks remains unchanged over time, the total supply of nominal money in the economy will vary directly with the supply of the nominal high-powered money issued by the central bank.

(b)   The Behaviour of Commercial Banks

By creating credit, the commercial banks determine the total amount of nominal demand deposits. The behaviour of the commercial banks in the economy is reflected in the ratio of their cash reserves to deposits known as the 'reserve ratio'. If the required reserve ratio on demand deposits increases while all the other vari- ables remain the same, more reserves would be needed. This implies that banks must contract their loans, causing a decline in deposits and hence in the money supply. If the required reserve ratio falls, there will be greater expansions of deposits because the same level of reserves can now support more deposits and the money supply will increase.

In actual practice, however, the commercial banks keep only a part or fraction of their total deposits in the form of cash reserves. However, for the commercial banking system as a whole, the actual reserves ratio is greater than the required reserve ratio since the banks keep with them a higher than the statutorily required percentage of their deposits in the form of cash reserves. The additional units of high-powered money that goes into 'excess reserves' of the commercial banks do not lead to any additional loans, and therefore, these excess reserves do not lead to creation of money.

When the costs of holding excess reserves rise, we should expect the level of excess reserves to fall; when the benefits of holding excess reserves rise, we would expect the level of excess reserves to rise.

If banks fear that deposit outflows are likely to increase (that is, if expected deposit outflows increase), they will want more assurance against this possibility and will increase the excess reserves ratio. Conversely, a decline in expected deposit outflows will reduce the benefit of holding excess reserves and excess reserves will fall.

The public, by their decisions in respect of the amount of nominal currency in hand (how much money they wish to hold as cash) is in a position to influence the amount of the nominal demand deposits of the commercial banks. The behaviour of the public influences bank credit through the decision on ratio of currency to the money supply designated as the 'currency ratio'.

In other words, you decide to keep more money in your pocket and less money in your bank. That means you are converting some of your demand deposits into currency. If many people like you do so, technically we say there is an increase in currency ratio. As we know, demand deposits undergo multiple expansions while currency in your hands does not. Hence, when bank deposits are being converted into currency, banks can create only less credit money. The overall level of multiple expansion declines, and therefore, money multiplier also falls. Therefore, we conclude that money multiplier and the money supply are negatively related to the currency ratio c.

To summarise the money multiplier approach, the size of the money multiplier is determined by the required reserve ratio (r) at the central bank, the excess reserve ratio (e) of commercial banks and the currency ratio (c) of the public. The lower these ratios are, the larger the money multiplier is. In other words, the money supply is determined by high powered money (H) and the money multiplier (m) and varies directly with changes in the monetary base, and inversely with the currency and reserve ratios.

DESCRIBE THE DIFFERENT DETERMINATES OF MONEY SUPPLY IN A COUNTRY.

There are two alternate theories in respect of determination of money supply. According to the first view, money supply is determined exogenously by the central bank. The second view holds that the money supply is determined endogenously by changes in the economic activities which affect people's desire to hold currency relative to deposits, rate of interest, etc.

The current practice is to explain the determinates of money supply based on 'money multiplier approach, which focuses on the relation between the money stock and money supply in terms of the monetary base or high-powered money. This approach holds that total supply of nominal money in the economy is determined by the joint behavior of the central bank, the commercial banks and the public.

Following three factors acts as immediate determinants of money supply, namely:

(a) the stock of high-power money (H) which represent the behaviour if the central bank

(b) the ratio of reserves to deposits, e = {ER/D} which represent the behaviour of Commercial banks

(c) the ratio of currency to deposits, c={C/D} which represent the behaviour of General public.

(a) **The Behaviour of the Central Bank:**

The behaviour of the central bank which controls the issue of currency is reflected in the supply of the nominal high-powered money. Money stock is determined by the money multiplier and the monetary base is controlled by the monetary authority. If the behaviour of the public and the commercial bank remains unchanged over time, the total supply of nominal money in the economy will vary directly with the supply of the nominal high-powered money issued by the central bank.

(b) **The Behaviour of Commercial Banks:**

By creating credit, the commercial banks determine the total amount of nominal demand deposits. The behaviour of the commercial banks in the economy is reflected in the ration of their cash reserve to deposits known as the 'reserve ratio'.

(c) **The Behaviour of the Public:**

The public, by their decision in respect of the amount of nominal currency in hand (how much money they wish to hold as cash) is in a position to influence the amount of the nominal demand deposits of the commercial banks. The behaviour of the public influence bank credit through the decision on ratio of currency to the money supply designated as the 'currency ratio'.

When people decide to keep more money in their pocket and less money in their bank. That means people are converting some of their demand deposits into currency then technically we say there is increase in currency ratio. As we know, demand deposits undergo multiple expansions while currency in people's hands does not. Hence, when bank deposits are being converted into currency, bank can create only less credit money. The overall level of multiple expansion declines, and therefore, money multiplier and the money supply are negatively related to the currency ration c.

Credit Multiplier (Explain)

The Credit Multiplier also referred to as the deposit multiplier or the deposit expansion multiplier, describes the amount of additional money created by commercial bank through the process of lending the available money it has in excess of the central bank's reserve requirements. The deposit multiplier is, thus inextricably tied to the bank's reserve requirement. This measure tells us how much new money will be created by the banking system for a given increase in the high- powered money. It reflects a bank's ability to increase the money supply.

The credit multiplier is the reciprocal of the required reserve ratio. If reserve ratio is 20%, then credit multiplier = 1/0.20 = 5.

$$\text{Credit Multiplier} = \frac{1}{(\text{Required Reserve Ratio})}$$

The existence of the credit multiplier is the outcome of fractional reserve banking.

The deposit multiplier and the money multiplier though closely related are not identical because:

(a) **Generally banks do not lend out all of their available money but instead maintain reserves at a level above the minimum required reserve.**

(b) **All borrowers do not spend every Rupee they have borrowed. They are likely to convert some portion of it to cash.**

THE SOURCES OF MONEY SUPPLY

The supply of money in the economy depends on:

(a) the decision of the central bank based on the authority conferred on it, and

(b) the supply responses of the commercial banking system of the country to the changes in policy variables initiated by the central bank to influence the total money supply in the economy.

Money either has intrinsic value or represents title to commodities that have intrinsic value or title to other debt instruments. In modern economies, the currency is a form of money that is issued exclusively by the sovereign (or a central bank as its representative) and is legal tender. Paper currency is such a representative money, and it is essentially a debt instrument.

It is a liability of the issuing central bank (and sovereign) and an asset of the holding public. The central banks of all countries are empowered to issue currency and, therefore, the central bank is the primary source of money supply in all countries. The currency issued by the central bank is '**fiat money**' and is backed by supporting

reserves and its value is guaranteed by the government.

The currency issued by the central bank is, in fact, a liability of the central bank and the government. Therefore, in principle, it must be backed by an equal value of assets mainly consisting of gold and foreign exchange reserves. In practice, however, most countries have adopted a 'minimum reserve system' wherein the central bank is empowered to issue currency to any extent by keeping only a certain minimum reserve of gold and foreign securities.

The second major source of money supply is the banking system of the country. The total supply of money in the economy is also determined by the extent of credit created by the commercial banks in the country. Banks create money supply in the process of borrowing and lending transactions with the public. Money so created by the commercial banks is called 'credit money'.

With the developments in the economy and the evolution of the payments system, the form and functions of money has changed over time, and it will continue to influence the future course of currency. The concept of money has experienced evolution from Commodity to Metallic Currency to Paper Currency to Digital Currency. The changing features of money are defining new financial landscape of the economy. Further, with the advent of cutting-edge technologies, digitalization of money is the next milestone in the monetary history.

Advancement in technology has made it possible for the development of new form of money viz. Central Bank Digital Currencies (CBDCs).

Recent innovations in technology-based payments solutions have led central banks around the globe to explore the potential benefits and risks of issuing a CBDC so as to maintain the continuum with the current trend in innovations. RBI has also been exploring the pros and cons of introduction of CBDCs for some time and is currently engaged in working towards a phased implementation strategy, going step by step through various stages of pilots followed by the final launch, and simultaneously examining use cases for the issuance of its own CBDC (Digital Rupee (e₹), with minimal or no disruption to the financial system. Currently, we are at the forefront of a watershed movement in the evolution of currency that will decisively change the very nature of money and its functions.

Reserve Bank broadly defines CBDC as the legal tender issued by a central bank in a digital form. It is akin to sovereign paper currency but takes a different form, exchangeable at par with the existing currency and shall be accepted as a medium of payment, legal tender and a safe store of value. CBDCs would appear as liability on a central bank's balance sheet.

The Crypto currencies face significant legislative uncertainties and are not legally recognized in India as currency. Hence, these are not categorized as money. In a massive development for crypto traders in India, the Reserve Bank of India (RBI) has said that banks or other financial entities cannot cite RBI's 2018 order that barred them from dealing with virtual cryptocurrencies.

QUESTIONS AND ANSWER

Question 1

Calculate Narrow Money (M1) from the following data

Currency with public	₹ 90000 crore
Demand Deposits with Banking System	₹ 200000 crore
Time Deposits with Banking System	₹ 220000 crore
Other Deposits with RBI	₹ 280000 crore
Saving Deposits of Post office saving banks	₹ 60000 crore

Answer

M_1 = Currency with public + Demand Deposits with Banking System + Other Deposits with the RBI

= 90000 crore + 200000 crore + 280000 crore = **570000 crore**

Question 2

Compute credit multiplier if the required reserved ratio is 10% and 12.5% for every ₹ 1,00,000 deposited in the banking system. What will be the total credit money created by the banking system in each case?

Answer

Credit Multiplier is the reciprocal of required reserved ratio.

$$\text{Credit Multiplier} = \frac{1}{\text{Required Reserverd Ratio}}$$

For RRR = 0.10 i.e. 10% the credit multiplier = $\frac{1}{0.10}$ = 10

For RRR = 0.125 i.e. 12.5% the credit multiplier = $\frac{1}{0.125}$ = 8

$$\text{Credit creation} = \text{Initial deposits} * \frac{1}{\text{RRR}}$$

For RRR 0.10 credit creation will be 1,00,000 × 1/0.10 = Rs. 10,00,000

For RRR 0.125 credit creation will be 1,00,000 × 1/0.125 = Rs. 8,00,000

Question 3

Calculate currency with the Public from the following data (₹ Crore)

1.1 Notes in Circulation	2496611
1.2 Circulation of Rupee Coin	25572
1.3 Circulation of Small Coins	743
1.4 Cash on Hand with Banks	98305

Answer

Currency with the Public (1.1 + 1.2 + 1.3 − 1.4)

=   (2496611+25572+743) − 98305

=   **2424621**

Question 4

Calculate M2 from the following data

	(₹ Crore)
Notes in Circulation	2420964
Circulation of Rupee Coin	25572
Circulation of Small Coins	743
Post Office Saving Bank Deposits	141786
Cash on Hand with Banks	97563
Deposit Money of the Public	1776199
Demand Deposits with Banks	1737692
'Other' Deposits with Reserve Bank	38507
Total Post Office Deposits	14896
Time Deposits with Banks	178694

Answer

M2   = M1+ Post Office Saving Bank Deposits

where M1   = (Notes in Circulation + Circulation of Rupee Coin + Circulation of Small Coins −Cash on Hand with Banks) + Deposit Money of the Public

= (2420964 + 25572 + 743 − 97563) + 1776199 = **4125915**

M2   = M1+ Post Office Saving Bank Deposits

= 4125915 +141786 = **4267701**

Question 5

If the required reserve ratio is 10 percent, currency in circulation is ₹ 400 billion, demand deposits are ₹ 1000 billion, and excess reserves total ₹ 1 billion, find the value of money multiplier.

Answer

r = 10% = 0.10

Currency = 400 billion

Deposits = 1000 billion

Excess Reserves = 1 billion

Money Supply is M = Currency + Deposits = 1400 billion

c = C/D =

400 billion/1000 billion = 0. 4 or depositors hold 40 percent of their money as currency

e = 1billion /1000 billion = 0.001 or banks hold 0.1% of their deposits as excess reserves.

Multiplier

= 1+ 0.4/ 0.1 + 0.001 + 0.4

= 1.5/ 0. 501 =2.79

Therefore, a 1 unit increase in MB leads to a 2.79 units increase in M.

MODULE MULTIPLE CHOICE QUESTIONS

1. Reserve money is also known as
    (a) central bank money   (b) base money
    (c) high powered money   (d) all the above

2. Choose the correct statement from the following
    (a) Money is deemed as something held by the public and therefore only currency held by the public is included in money supply.
    (b) Money is deemed as something held by the public and therefore inter-bank deposits are included in money supply.
    (c) Since inter-bank deposits are not held by the public, therefore inter-bank deposits are excluded from the measure of money supply.
    (d) Both (a) and (c) above.

3. Reserve Money is composed of
    (a) currency in circulation + demand deposits of banks (Current and Saving accounts) + Other deposits with the RBI.
    (b) currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI.
    (c) currency in circulation + demand deposits of banks + Other deposits with the RBI.
    (d) currency in circulation + demand and time deposits of banks + Other deposits with the RBI.

4. M1 is the sum of
    (a) currency and coins with the people + demand deposits of banks (Current and Saving accounts) + other deposits of the RBI.
    (b) currency and coins with the people + demand and time deposits of banks (Current and Saving accounts) + other deposits of the RBI.
    (c) currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI
    (d) none of the above

5. Under the' minimum reserve system' the central bank is

(a) empowered to issue currency to any extent by keeping an equivalent reserve of gold and foreign securities.

(b) empowered to issue currency to any extent by keeping only a certain minimum reserve of gold and foreign securities.

(c) empowered to issue currency in proportion to the reserve money by keeping only a minimum reserve of gold and foreign securities.

(d) empowered to issue currency to any extent by keeping a reserve of gold and foreign securities to the extent of ₹ 350 crores

6. The primary source of money supply in all countries is

(a) the Reserve Bank of India   (b) the Central bank of the country

(c) the Bank of England   (d) the Federal Reserve

7. The supply of money in an economy depends on

(a) the decision of the central bank based on the authority conferred on it.

(b) the decision of the central bank and the supply responses of the commercial banking system.

(c) the decision of the central bank in respect of high powered money.

(d) both (a) and (c) above.

8. Banks in the country are required to maintain deposits with the central bank

(a) to provide the necessary reserves for the functioning of the central bank

(b) to meet the demand for money by the banking system

(c) to meet the central bank prescribed reserve requirements and to meet settlement obligations.

(d) to meet the money needs for the day to day working of the commercial banks

9. If the behaviour of the public and the commercial banks is constant, then

(a) the total supply of nominal money in the economy will vary directly with the supply of the nominal high-powered money issued by the central bank

(b) the total supply of nominal money in the economy will vary directly with the rate of interest and inversely with reserve money

(c) the total supply of nominal money in the economy will vary inversely with the supply of high powered money

(d) all the above are possible

10. Under the fractional reserve system
    (a) the money supply is an increasing function of reserve money (or high powered money) and the money multiplier.
    (b) the money supply is an decreasing function of reserve money (or high powered money) and the money multiplier.
    (c) the money supply is an increasing function of reserve money (or high powered money) and a decreasing function of money multiplier.
    (d) none of the above as the determinants of money supply are different

11. The money multiplier and the money supply are
    (a) positively related to the excess reserves ratio e.
    (b) negatively related to the excess reserves ratio e.
    (c) not related to the excess reserves ratio e.
    (d) proportional to the excess reserves ratio e.

12. The currency ratio represents
    (a) the behaviour of central bank in the issue of currency.
    (b) the behaviour of central bank in respect cash reserve ratio.
    (c) the behaviour of the public.
    (d) the behaviour of commercial banks in the country.

13. The size of the money multiplier is determined by
    (a) the currency ratio (c) of the public,
    (b) the required reserve ratio (r) at the central bank, and
    (c) the excess reserve ratio (e) of commercial banks.
    (d) all the above

14. _____tells us how much new money will be created by the banking system for a given increase in the high-powered money.
    (a) The currency ratio
    (b) The excess reserve ratio (e)
    (c) The credit multiplier
    (d) The currency ratio (c)

15. The money multiplier will be large
   (a) for higher currency ratio (c), lower required reserve ratio (r) and lower excess reserve ratio (e)
   (b) for constant currency ratio (c), higher required reserve ratio (r) and lower excess reserve ratio (e)
   (c) for lower currency ratio (c), lower required reserve ratio (r) and lower excess reserve ratio (e)
   (d) None of the above

16. The ratio that relates the change in the money supply to a given change in the monetary base is called the
   (a) required reserve ratio.   (b) money multiplier.
   (c) deposit ratio.   (d) discount rate.

17. For a given level of the monetary base, an increase in the required reserve ratio will denote
   (a) a decrease in the money supply.
   (b) an increase in the money supply.
   (c) an increase in demand deposits.
   (d) Nothing precise can be said

18. For a given level of the monetary base, an increase in the currency ratio causes the money multiplier to _____ and the money supply to _____.
   (a) decrease; increase   (b) increase; decrease
   (c) decrease; decrease   (d) increase; increase

19. If commercial banks reduce their holdings of excess reserves
   (a) the monetary base increases.   (b) the monetary base falls.
   (c) the money supply increases.   (d) the money supply falls

ANSWERS:

1	(d)	2	(c)	3	(b)	4	(a)	5	(b)	6	(b)
7	(b)	8	(c)	9	(a)	10	(a)	11	(b)	12	(c)
13	(d)	14	(c)	15	(c)	16	(b)	17	(a)	18	(c)
19	(c)										

SUMMARY

- ➤ The measures of money supply vary from country to country, from time to time and from purpose to purpose.

- ➤ The high-powered money and the credit money broadly constitute the most common measure of money supply, or the total money stock of a country.

- ➤ High powered money is the source of all other forms of money. The second major source of money supply is the banking system of the country. Money created by the commercial banks is called 'credit money'.

- ➤ Measurement of money supply is essential from a monetary policy perspective because it enables a framework to evaluate whether the stock of money in the economy is consistent with the standards for price stability, to understand the nature of deviations from this standard and to study the causes of money growth.

- ➤ The stock of money always refers to the total amount of money at any particular point of time i.e. it is the stock of money available to the 'public' as a means of payments and store of value and does not include inter-bank deposits.

- ➤ The monetary aggregates are:
  - M1 = Currency and coins with the people + demand deposits of banks (Current and Saving accounts) + other deposits of the RBI;
  - M2 = M1 + savings deposits with post office savings banks,
  - M3 = M1 + net time deposits of banks and
  - M4 = M3 + total deposits with the Post Office Savings Organization (excluding National Savings Certificates).

- ➤ Following the recommendations of the Working Group on Money (1998), the RBI has started publishing a set of four new monetary aggregates as: Reserve Money = Currency in circulation + Bankers' deposits with the RBI + Other deposits with the RBI, NM1 = Currency with the public + Demand deposits with the banking system + 'Other' deposits with the RBI, NM2 = NM1 +Short-term time deposits of residents (including and up to contractual maturity of one year),NM3 = NM2 + Long-term time deposits of residents + Call/Term funding from financial institutions

- ➤ The Liquidity aggregates are:

- ➤ L1 = NM3 + All deposits with the post office savings banks (excluding National Savings Certificates).

➢ L2 = L1 +Term deposits with term lending institutions and refinancing institutions (FIs) + Term borrowing by FIs + Certificates of deposit issued by FIs.

➢ The Reserve money, also known as central bank money, base money or high powered money determines the level of liquidity and price level in the economy.

➢ The money multiplier approach showing relation between the money stock and money supply in terms of the monetary base or high-powered money holds that total supply of nominal money in the economy is determined by the joint behaviour of the central bank, the commercial banks, and the public.

➢ M = m X MB; Where M is the money supply, m is money multiplier and MB is the monetary base or high powered money. It shows the relationship between the reserve money and the total money stock.

➢ The money multiplier is a function of the currency ratio which depends on the behaviour of the public, excess reserves ratio of the banks and the required reserve ratio set by the central bank.

➢ The additional units of high-powered money that goes into 'excess reserves' of the commercial banks do not lead to any additional loans, and therefore, these excess reserves do not lead to the creation of deposits.

➢ When the required reserve ratio falls, there will be greater multiple expansions for demand deposits.

➢ Excess reserves ratio e is negatively related to the market interest rate i. If interest rate increases, the opportunity cost of holding excess reserves rises, and the desired ratio of excess reserves to deposits falls.

➢ An increase in time deposit-demand deposit ratio (TD/DD) means that greater availability of free reserves for banks and consequent enlargement of volume of multiple deposit expansion and monetary expansion.

➢ When the Reserve Bank lends to the governments under WMA /OD it results in the generation of excess reserves (i.e., excess balances of commercial banks with the Reserve Bank).

OPERATING PROCEDURES AND INSTRUMENTS

Quantitative tools –

The tools applied by the policy that impact money supply in the entire economy, including sectors such as manufacturing, agriculture, automobile, housing, etc.

Reserve Ratio

Banks are required to keep aside a set percentage of cash reserves or RBI approved assets.

Reserve ratio is of two types:

Cash Reserve Ratio (CRR) – Banks are required to set aside this portion in cash with the RBI. The bank can neither lend it to anyone nor can it earn any interest rate or profit on CRR.

Statutory Liquidity Ratio (SLR) – Banks are required to set aside this portion in liquid assets such as gold or RBI approved securities such as government securities. Banks are allowed to earn interest on these securities, however it is very low.

Open Market Operations (OMO)

In order to control money supply, the RBI buys and sells government securities in the open market. These operations conducted by the Central Bank in the open market are referred to as Open Market Operations.

When the RBI sells government securities, the liquidity is sucked from the market, and the exact opposite happens when RBI buys securities. The latter is done to control inflation. The objective of OMOs are to keep a check on temporary liquidity mismatches in the market, owing to foreign capital flow.

Qualitative tools

Unlike quantitative tools which have a direct effect on the entire economy's money supply, qualitative tools are selective tools that have an effect in the money supply of a specific sector of the economy.

Margin requirements – The RBI prescribes a certain margin against collateral, which in turn impacts the borrowing habit of customers. When the margin requirements are raised by the RBI, customers will be able to borrow less.

Moral suasion – By way of persuasion, the RBI convinces banks to keep money in government securities, rather than certain sectors.

Selective credit control – Controlling credit by not lending to selective industries or speculative businesses.

MARKET STABILISATION SCHEME (MSS) -

Policy Rates

Bank rate – The interest rate at which RBI lends long term funds to banks is referred to as the bank rate. However, presently RBI does not entirely control money supply via the bank rate. It uses Liquidity Adjustment Facility (LAF) – repo rate as one of the significant tools to establish control over money supply.

Bank rate is used to prescribe penalty to the bank if it does not maintain the prescribed SLR or CRR.

Liquidity Adjustment Facility (LAF) – RBI uses LAF as an instrument to adjust liquidity and money supply. The following types of LAF are:
Repo rate: Repo rate is the rate at which banks borrow from RBI on a short-term basis against a repurchase agreement. Under this policy, banks are required to provide government securities as collateral and later buy them back after a pre-defined time.

Reverse Repo rate: It is the reverse of repo rate, i.e., this is the rate RBI pays to banks in order to keep additional funds in RBI. It is linked to repo rate in the following way:
Reverse Repo Rate = Repo Rate – 1

Marginal Standing Facility (MSF) Rate: MSF Rate is the penal rate at which the Central Bank lends money to banks, over the rate available under the rep policy. Banks availing MSF Rate can use a maximum of 1% of SLR securities.
MSF Rate = Repo Rate + 1MSF Rate = Repo Rate + 1

QUESTIONS AND ANSWER

Question 1

Explain the objective of monetary policy in an economy. Assess the instruments and targets of monetary policy of the Reserve Bank of India.

Answer

Monetary policy encompasses all actions of the central bank which are aimed at directly controlling the money supply and indirectly at regulating the demand for money. Monetary policy is in the nature of 'demand-side' macroeconomic policy and works by stimulating or discouraging investment and consumption spending on goods and services.

Following are some of the important objective of the Monetary Policy:

The most commonly pursued objectives of monetary policy of the central banks across the world are maintenance of price stability (or controlling inflation) and achievement of high level of economy's growth and maintenance of full employment.

➢ To regulate the issue of bank notes and the keeping of reserves with a view to securing monetary stability in India and generally to operate the currency and credit system of the country to its advantage.

➢ To promote rapid economic growth, and price stability (inflation /deflation)

➢ To maintain a robust debt management,

➢ To sustain a moderate structure of interest rates to encourage investments,

➢ To maintain exchange rate stability and external balance of payment equilibrium

➢ To ensure an adequate flow of credit to the productive sectors

➢ To create an efficient market for government securities.

Question 2

Explain Operating Procedures & Instruments / target of monetary policy of the Reserve Bank of India:

Answer

The operating framework relates to all aspects of implementation of monetary policy. It primarily involves three major aspects, namely,

1. Choosing the operating target,
2. Choosing the intermediate target, and
3. Choosing the policy instruments.

The operating target refers to the variable (for e.g. inflation) that monetary policy can influence with its actions. The intermediate target (e.g. economic stability) is a variable which the central bank can hope to influence to a reasonable degree through the operating target and which displays a predictable and stable relationship with the goal variables. The monetary policy instruments are the various tools that a central bank can use to influence money market and credit conditions and pursue its monetary policy objectives. The day-to-day implementation of monetary policy by central bank can act directly, using its regulatory power, or indirectly, using its influence on money market conditions as the issuer of reserve money (currency in circulation and deposit balances with the central bank).
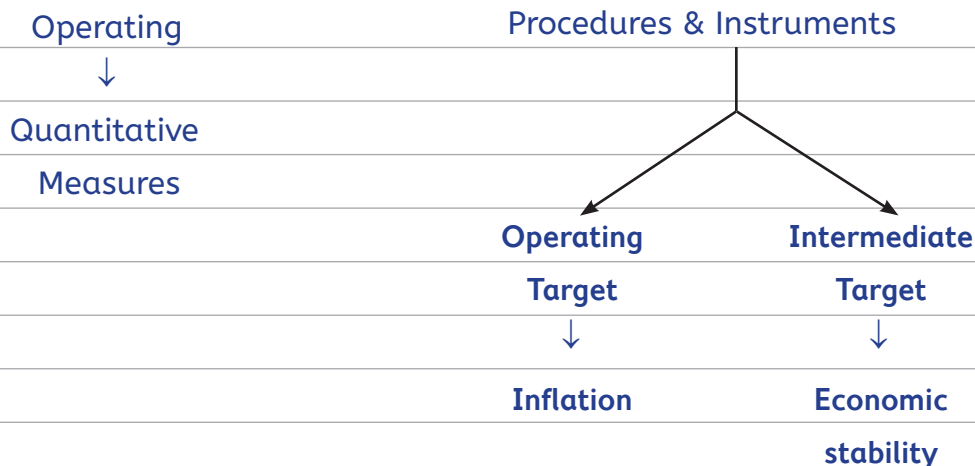
In general, the direct instrument comprise of:

(a) The required cash reserve ratio and liquidity reserve ratios prescribed from time to time.

(b) directed credit which takes the form of prescribed targets for allocation of credit to preferred sectors (for e.g. Credit to priority sectors), and

(c) Administered interest rates wherein the deposit and lending rates are prescribed by the central bank.

The indirect instruments mainly consist of:

(a) Repos

(b) Open market operations

(c) Standing facilities, and

(d) Market-based discount window

The inflation target is to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly,

➤ The Central Government has notified 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent.

➤ The RBI is mandated to publish a Monetary Policy Report every six months, explaining the sources of inflation and the forecasts of inflation for the coming period of six to eighteen months.

```
        Operating                    Procedures & Instruments
           ↓
       Quantitative
        Measures
                                    Operating          Intermediate
                                     Target               Target
                                       ↓                    ↓
                                    Inflation          Economic
                                                        stability
```

As per 2021 (June):

Bank rate	:	4.25%
CRR	:	4 %
SLR	:	18%
REPO	:	4%
Reverse repo	:	3.35%
MSF	:	4.25%

Instruments:

CRR:

CRR refers to fraction of Total NDTL (Net demand and time liability) of commercial bank which it should maintain as cash deposits with RBI. CRR is mandatory Reserve for all commercial bank. Bank have to pay monetary penalty to they don't maintain CRR. CRR is applicable only to commercial bank & not applicable to NBFC. RBI may not give any interest on CRR. Currently CRR is 4%.

Statutory Liquidity Ratio:

SLR is a percentage of NDTL that every commercial bank has to keep with itself either in cash, gold or government dated securities. Currently SLR is 18%. As per 2021 during inflation, SLR increases, and during deflation SLR decreases. It is Mandatory to maintain SLR with RBI, Failure to maintain will attract Monetary penalty , Not applicable to NBFC

Liquidity Adjustment Facilities:

LAF started in year 2000. (RBI is Bankers Bank), LAF is a window available with central bank known as discount window which provides financial accommodation to commercial banks, it helps at the time of Liquidity shortage and control short term Interest rate, through Repo and. Reverse repo auction

1. **Repo Auction**: It is a rate at which commercial bank borrows money from central bank by keeping some security mortgage which could be repurchased @ later stage. At present rate is 4%

2. **Reverse Repo:** It is a percentage that central bank borrows from commercial bank by keeping security as mortgage currently it is 3.35%

Marginal Standing Facility:

MSF started in the year 2011. MSF refers to the facility under which schedule commercial bank can borrow additional amount up to 1% of NDTL for overnight purpose (24 hrs). MSF will be activated when commercial banks have exhausted all borrowings option currently it is 4.25%, minimum amount 1Cr & in multiples of that.

Market stabilization scheme:

MSS started in the year 2004 it is a program started by RBI & government, to absorb additional liquidity from the market due to huge foreign inflow of fund and the process is called as sterilization. later under this scheme Govt borrows money from RBI which helps to absorb additional liquidity from the system, which controls inflation and brings Exchange rate Stability

Bank rate:

Bank rate is also known as rediscount rate. It is rate at which central bank rediscount the bill of commercial bank. Currently bank rate acts as a penalty interest rate. Currently it is 4.25%, it has been dis continued due to introduction of LAF.

Open market operation:

It is a general term used for market operation. It is an deliberate attempt for buying & selling government bonds in the open market. It will lead to either absorption or injection of liquidity. During inflation Selling of bonds will take place and during period of low growth Purchase of bonds will take place .

Question 3

A central bank is a 'bankers' bank.' Elucidate the statement with illustrations.

Answer

A central bank is a 'bankers' bank.' It provides liquidity to bank when the latter face shortage of liquidity. This facility is provided by the central bank through its discount window. The scheduled commercial banks can borrow from the discount window against

the collateral of securities like commercial bills, government securities, treasury bills, or other eligible papers.

This type of support earlier look the form of refinance of loans given by commercial bank to various sectors (e.g. Export, agriculture etc.). By varying the terms and conditions of encourage/discourage lending to particular sectors. In line with the financial sector reforms, the system of sector-specific refinance schemes (expect export credit refinance scheme) was withdrawn. From June 2000, the RBI has introduced Liquidity Adjustment Facility (LAF).

The Liquidity Adjustment Facility (LAF) is a facility extended by the Reserve Bank of India to the scheduled commercial banks (excluding RRBs) and primary dealers to avail of liquidity in case of requirement (or park excess funds with the RBI in case of excess liquidity) on an overnight basis against the collateral of government securities including state government securities.

Currently, the RBI provides financial accommodation to the commercial banks through repo/reverse repos under the Liquidity Adjustment facility (LAF).
The Reserve Bank of India, being a bankers' bank, also acts as a lender of last resort. The Marginal standing Facility (MSF) announced by the Reserve Bank of India (RBI) in its Monetary Policy, 2011-12 refers to the facility under which scheduled commercial banks can borrow additional amount of overnight money from the Liquidity Ratio (SLR) portfolio up to a limit (a fixed per cent of their net demand and time liabilities deposits (NDTL) liable to change every year) at a penal rate of interest.

Question 4

Explain Bank lending Channel and balance sheet channel

Answer

Two distinct credit channels- the **Bank lending channel** and the balance sheet channel- also allow the effects of monetary policy actions to spread through the real economy. Credit channel operates by altering access of firms and households to bank credit. Most business and people mostly depend on bank for borrowing money."An open market operation" that leads first to a contraction in the supply of bank reserves and then to a contraction in bank credit requires banks to cut back on their lending. This, in turn makes the firms that are especially dependent on banks loans to cut back on their investment spending. Thus, there is decline in the aggregate output and employment following a monetary contraction.

Balance sheet channel

Now we shall look into how the balance sheet channel works. Logically, as a firm's cost of credit rises, the strength of its balance sheet deteriorates. A direct effect of monetary policy on the firm's balance sheet comes through an increase in interest rates leading to an increase in the payments that the firm must make to repay its floating rate debts. An indirect effect occurs when the same increase in interest rates works to reduce the capitalized value of the firm's long-lived assets. Hence, a policy-induced increase in the short-term interest rate not only acts immediately to depress spending through the traditional interest rate channel, it also acts, possibly with a time-lag, to raise each firm's cost of capital through the balance sheet channel. These together aggravate the decline in output and employment.

A policy-induced increase in the short-term nominal interest rates makes debt instruments more attractive than equities in the eyes of investors leading to a fall in equity prices. If stock prices fall after a monetary tightening, it leads to reduction in household financial wealth, leading to fall in consumption, output, and employment.

Question 5

Explain policy rate

Answer

In India, the fixed repo rate quoted for sovereign securities in the overnight segment of Liquidity Adjustment Facility (LAF) is considered as the policy rate. (It may be noted that India has many other repo rates in operation). The RBI uses the single independent 'policy rate' which is the repo rate (in the LAF window) for balancing liquidity. The policy rate is in fact, the key lending rate of the central bank in a country. A change in the policy rate gets transmitted through the money market to the entire the financial system and alters all other short term interest rates in the economy, thereby influencing aggregate demand – a key determinant of the level of inflation and economic growth. If the RBI wants to make it more expensive for banks to borrow money, it increases the repo rate. Similarly, if it wants to make it cheaper for banks to borrow money, it reduces the repo rate.

Short note on Monetary Policy Committee (MPC)

An important landmark in India's monetary history is the constitution of an empowered six-member Monetary Policy Committee (MPC) in September, 2016 consisting of the RBI Governor (Chairperson), the RBI Deputy Governor in charge of monetary policy, one official nominated by the RBI Board and the remaining three central government nominees

representing the Government of India who are persons of ability, integrity and standing, having knowledge and experience in the field of Economics or banking or finance or monetary policy.

The MPC shall determine the policy rate required to achieve the inflation target. Accordingly, fixing of the benchmark policy interest rate (repo rate) is made through debate and majority vote by this panel of experts. With the introduction of the Monetary Policy Committee, the RBI will follow a system which is more consultative and participative similar to the one followed by many of the central banks in the world. The new system is intended to incorporate:
- ➢ diversity of views,
- ➢ specialized experience,
- ➢ independence of opinion ,
- ➢ representativeness , and
- ➢ accountability.

The Reserve Bank's Monetary Policy Department (MPD) assists the MPC in formulating the monetary policy. The views of key stakeholders in the economy and analytical work of the Reserve Bank contribute to the process for arriving at the decision on the policy repo rate.

The Financial Markets Operations Department (FMOD) operationalises the monetary policy, mainly through day-to-day liquidity management operations. The Financial Markets Committee (FMC) meets daily to review the liquidity conditions so as to ensure that the operating target of monetary policy is kept close to the policy repo rate.

Question 6

Explain Monetary Policy Frame work agreement or Inflation targeting by RBI.

Answer

The Reserve Bank of India (RBI) Act, 1934 was amended on June 27, 2016, for giving a statutory backing to the Monetary Policy Framework Agreement and for setting up a Monetary Policy Committee (MPC). The Monetary Policy Framework Agreement is an agreement reached between the Government of India and the Reserve Bank of India (RBI) on the maximum tolerable inflation rate that the RBI should target to achieve price stability. The amended RBI Act (2016) provides for a statutory basis for the implementation of the 'flexible inflation targeting framework'.

Announcement of an official target range for inflation is known as inflation targeting. The Expert Committee under Urijit Patel to revise the monetary policy framework, in its report in January, 2014 suggested that RBI abandon the 'multiple indicator' approach and make inflation targeting the primary objective of its monetary policy. The inflation target is to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly,

➢ The Central Government has notified 4 per cent Consumer Price Index (CPI) inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent.

➢ The RBI is mandated to publish a Monetary Policy Report every six months, explaining the sources of inflation and the forecasts of inflation for the coming period of six to eighteen months.

MODULE MULTIPLE CHOICE QUESTIONS

1. Which of the following is the function of monetary policy?
   (a) regulate the exchange rate and keep it stable
   (b) regulate the movement of credit to the corporate sector
   (c) regulate the level of production and prices
   (d) regulate the availability, cost and use of money and credit

2. The main objective of monetary policy in India is _____:
   (a) reduce food shortages to achieve stability
   (b) economic growth with price stability
   (c) overall monetary stability in the banking system ®
   (d) reduction of poverty and unemployment

3. The monetary transmission mechanism refers to
   (a) how money gets circulated in different sectors of the economy post monetary policy
   (b) the ratio of nominal interest and real interest rates consequent on a monetary policy
   (c) the process or channels through which the evolution of monetary aggregates affects the level of product and prices
   (d) none of the above

4. A contractionary monetary policy-induced increase in interest rates
   (a) increases the cost of capital and the real cost of borrowing for firms
   (b) increases the cost of capital and the real cost of borrowing for firms and households
   (c) decreases the cost of capital and the real cost of borrowing for firms
   (d) has no interest rate effect on firms and households

5. During deflation
   (a) the RBI reduces the CRR in order to enable the banks to expand credit and increase the supply of money available in the economy
   (b) the RBI increases the CRR in order to enable the banks to expand credit and increase the supply of money available in the economy

(c) the RBI reduces the CRR in order to enable the banks to contract credit and increase the supply of money available in the economy

(d) the RBI reduces the CRR but increase SLR in order to enable the banks to contract credit and increase the supply of money available in the economy

6. Which of the following statements is correct?

(a) The governor of the RBI in consultation with the Ministry of Finance decides the policy rate and implements the same

(b) While CRR has to be maintained by banks as cash with the RBI, the SLR requires holding of approved assets by the bank itself

(c) When repo rates increase, it means that banks can now borrow money through open market operations (OMO)

(d) None of the above

7. RBI provides financial accommodation to the commercial banks through repos/ reverse repos under

(a) Market Stabilisation Scheme (MSS)

(b) The Marginal Standing Facility (MSF)

(c) Liquidity Adjustment Facility (LAF).

(d) Statutory Liquidity Ratio (SLR)

8. _____is a money market instrument, which enables collateralised short term borrowing and lending through sale/purchase operations in debt instruments.

(a) OMO   (b) CRR

(c) SLR   (d) Repo

9. In India, the term 'Policy rate' refers to

(a) The bank rate prescribed by the RBI in its half yearly monetary policy statement

(b) The CRR and SLR prescribed by RBI in its monetary policy statement

(c) the fixed repo rate quoted for sovereign securities in the overnight segment of Liquidity Adjustment Facility (LAF)

(d) the fixed repo rate quoted for sovereign securities in the overnight segment of Marginal Standing Facility (MSF)

10. Reverse repo operation takes place when
    (a) RBI borrows money from banks by giving them securities
    (b) banks borrow money from RBI by giving them securities
    (c) banks borrow money in the overnight segment of the money market
    (d) RBI borrows money from the central government

11. The Monetary Policy Framework Agreement is on
    (a) the maximum repo rate that RBI can charge from government
    (b) the maximum tolerable inflation rate that RBI should target to achieve price stability.
    (c) the maximum repo rate that RBI can charge from the commercial banks
    (d) the maximum reverse repo rate that RBI can charge from the commercial banks

12. An open market operation is an instrument of monetary policy which involves buying or selling of _____ from or to the public and banks
    (a) bonds and bills of exchange   (b) debentures and shares
    (c) government securities   (d) none of these

13. Which statement (s) is (are) true about Monetary Policy Committee?
    I.   The Reserve Bank of India (RBI) Act, 1934 was amended on June 27, 2016, for giving a statutory backing to the Monetary Policy Framework Agreement and for setting up a Monetary Policy Committee
    II. The Monetary Policy Committee shall determine the policy rate through debate and majority vote by a panel of experts required to achieve the inflation target.
    III. The Monetary Policy Committee shall determine the policy rate through consensus from the governor of RBI
    IV. The Monetary Policy Committee shall determine the policy rate through debate and majority vote by a panel of bankers chosen for eth purpose
    (a) I only   (b) I and II only
    (c) III and IV   (d) III only

ANSWERS:

| 1	(d)	2	(b)	3	(c)	4	(b)	5	(a)	6	(b)
7	(c)	8	(d)	9	(c)	10	(a)	11	(b)	12	(c)
13	(b)										

SUMMARY

➢ Monetary policy refers to the use of monetary policy instruments which are at the disposal of the central bank to regulate the availability, cost and use of money and credit so as to promote economic growth, price stability, optimum levels of output and employment, balance of payments equilibrium, stable currency or any other goal of government's economic policy.

➢ The monetary policy framework which has three basic components, viz. the objectives of monetary policy, the analytics of monetary policy which focus on the transmission mechanism, and the operating procedure which focuses on the operating targets and instruments.

➢ Though multiple objectives are pursued, the most commonly pursued objectives of monetary policy of the central banks across the world has become maintenance of price stability (or controlling inflation) and achievement of economic growth.

➢ The process or channels through which the evolution of monetary aggregates affects the level of production and price level is known as 'monetary transmission mechanism' i.e how they impact real variables such as aggregate output and employment.

➢ There are mainly four different mechanisms, namely, the interest rate channel, the exchange rate channel, the quantum channel, and the asset price channel.

➢ A contractionary monetary policy-induced increase in interest rates increases the cost of capital and the real cost of borrowing for firms and households who respond by cut back on their investment and consumption respectively.

➢ The exchange rate channel works through expenditure switching between domestic and foreign goods on account of appreciation / depreciation of the domestic currency with its impact on net exports and consequently on domestic output and employment.

➢ Two distinct credit channels- the bank lending channel and the balance sheet channeloperate by altering access of firm and household to bank credit and by the effect of monetary policy on the firm's balance sheet respectively.

➢ Asset prices generate important wealth effects that impact, through spending, output and employment.

➢ The operating framework of monetary policy relates to all aspects of implementation namely, choosing the operating target, choosing the intermediate target, and choosing the policy instruments.

➢ The day-to-day implementation of monetary policy by central banks through various instruments is referred to as 'operating procedures'.

➢ Monetary policy instruments are the various tools that a central bank can use to influence money market and credit conditions and pursue its monetary policy objectives. There are direct instruments and indirect instruments.

➢ The Cash Reserve Ratio (CRR) refers to the fraction of the total net demand and time liabilities (NDTL) of a scheduled commercial bank in India which it should maintain as cash deposit with the Reserve Bank irrespective of its size or financial position.

➢ The Statutory Liquidity Ratio (SLR) is what the scheduled commercial banks in India are required to maintain as a stipulated percentage of their total Demand and Time Liabilities (DTL) / Net DTL (NDTL) in Cash, Gold or approved investments in securities.

➢ On the basis of the recommendations of Narsimham Committee on banking sector reforms the RBI introduced Liquidity Adjustment Facility (LAF) under which RBI provides financial accommodation to the commercial banks through repos/reverse repos.

➢ Repurchase Options or in short Repo, is defined as 'an instrument for borrowing funds by selling securities with an agreement to repurchase the securities on a mutually agreed future date at an agreed price which includes interest for the funds borrowed'.

➢ In India, the fixed repo rate quoted for sovereign securities in the overnight segment of Liquidity Adjustment Facility (LAF) is considered as the 'policy rate' .

➢ Repo or repurchase option is a collaterised lending because banks borrow money from Reserve bank of India to fulfil their short term monetary requirements by selling securities to RBI with an explicit agreement to repurchase the same at predetermined date and at a fixed rate. The rate charged by RBI for this transaction is called the 'repo rate'.

➢ Reverse Repo is defined as an instrument for lending funds by purchasing securities with an agreement to resell the securities on a mutually agreed future date at an agreed price which includes interest for the funds lent.

➢ The Marginal Standing Facility (MSF) refers to the facility under which scheduled commercial banks can borrow additional amount of overnight money from the central bank over and above what is available to them through the LAF window by dipping into their Statutory Liquidity Ratio (SLR) portfolio up to a limit.

➢ Under the Market Stabilisation Scheme (MSS) the Government of India borrows from the RBI (such borrowing being additional to its normal borrowing requirements) and issues treasury-bills/dated securities.

➢ Bank Rate refers to "the standard rate at which the Reserve Bank is prepared to buy or re-discount bills of exchange or other commercial paper eligible for purchase under the Act.

➢ OMOs is a general term used for market operations conducted by the Reserve Bank of India by way of sale/ purchase of Government securities to/ from the market with an objective to adjust the rupee liquidity conditions in the market on a regular basis.

➢ The Monetary Policy Committee (MPC) consisting of six members shall determine the policy rate to achieve the inflation target through debate and majority vote by a panel of experts.

➢ The Monetary Policy Framework Agreement is an agreement reached between the Government of India and the Reserve Bank of India (RBI) to keep the Consumer Price Index CPI) inflation rate between 2 to 6 per cent.

➢ Choice of a monetary policy action is rather complex in view of the surrounding uncertainties and the need for exercising trade-offs between growth and inflation concerns. Additional complexities arise in the case of an emerging market like India where inflation is influenced by factors such as international petroleum prices and food prices.
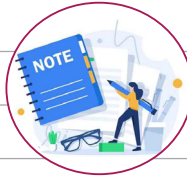
Speak Your Mind

Chapter 9
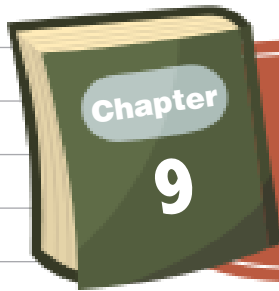
INTERNATIONAL TRADE

UNIT 1: THEORIES OF INTERNATIONAL TRADE

1. INTRODUCTION

International trade is the exchange of goods and services as well as resources between countries. It involves transactions between residents of different countries. If there is a point on which most economists agree, it is that trade among nations makes the world better off.

International trade reduces production cost and improves living standards of people. The foreign producer also benefits by making more sales than it could selling solely in its own market and by earning foreign exchange (currency) that can be used by itself or others in the country to purchase foreign-made products. International trade is an integral part of international relations and has become an important engine of growth in developed as well as developing countries.

Benefits of International Trade

(i)   International trade is a powerful stimulus to economic efficiency and contributes to economic growth and rising incomes. The wider market made possible owing to trade induces companies to reap the quantitative and qualitative benefits of division of labour.

(ii)   Efficient deployment of productive resources to their best use is a direct economic advantage of foreign trade. Greater efficiency in the use of natural, human, industrial and financial resources ensures productivity gains. Since international trade also tends to decrease the likelihood of domestic monopolies, it is always beneficial to the community.

(iii)   Trade provides access to new markets and new materials and enables sourcing of inputs and components internationally at competitive prices. This reflects in innovative products at lower prices and wider choice in products and services for consumers. It also enables nations to acquire foreign exchange reserves necessary for imports which are crucial for sustaining their economies.

(iv) International Trade necessitates increased use of automation, supports technological change, stimulates innovations, and facilitates greater investment in research and development and productivity improvement in the economy.

(v) Trade also provides greater stimulus to innovative services in banking, insurance, logistics, consultancy services etc.

(vi) For emerging economies, improvement in the quality of output of goods and services, superior products, finer labour and environmental standards etc. enhance the value of their products and enable them to move up the global value chain.

(vii) Opening up of new markets results in broadening the productive base and facilitates export diversification so that new production possibilities are opened up.

(viii) Trade can also contribute to human resource development, by facilitating fundamental and applied research and exchange of know-how and best practices between trade partners.

(ix) Trade strengthens bonds between nations by bringing citizens of different countries together in mutually beneficial exchanges and, thus, promotes harmony and cooperation among nations.

Despite being a dynamic force, which has an enormous potential to generate overall economic gains, liberal global trade and investments are often criticised as detrimental to national interests. The major arguments put forth against trade openness are:

(i) International trade is often not equally beneficial to all nations. Potential unequal market access and disregard for the principles of a fair trading system may even amplify the differences between trading countries, especially if they differ in their wealth.

(ii) Economic exploitation is a likely outcome when underprivileged countries become vulnerable to the growing political power of corporations operating globally. The domestic entities can be easily outperformed by financially stronger transnational companies.

(iii) Substantial environmental damage and exhaustion of natural resources in a shorter span of time could have serious negative consequences on the society at large.

(iv) Trade cycles and the associated economic crises occurring in different countries are also likely to get transmitted rapidly to other countries.

(v) Risky dependence of underdeveloped countries on foreign nations impairs economic autonomy and endangers their political sovereignty. Such reliance often leads to widespread exploitation and loss of cultural identity. Substantial dependence may also have severe adverse consequences in times of wars and other political disturbances.

(vi) Too much export orientation may distort actual investments away from the genuine investment needs of a country.

(vii) Finally, there is often a lack of transparency and predictability in respect of many aspects related to trade policies of trading partners. There are also many risks in trade which are associated with changes in governments' policies of participating countries, such as imposition of an import ban, high import tariffs or trade embargoes.

2. IMPORTANT THEORIES OF INTERNATIONAL TRADE

You might have noticed that many goods and services are imported by us because they are simply not produced in our country for various reasons and therefore not available domestically. However, we do import many things which can be produced or are being produced within our country. Why do we do so? Is it beneficial to engage in international trade? The theories of international trade which we discuss in the following sections provide answers to these and other related questions.

➤ **The Mercantilists' View of International Trade**

Mercantilism, which is derived from the word mercantile, "trade and commercial affairs".

Mercantilism according to Microsoft Encarta Dictionary (2009), is the economic policy trending in Europe from the 16th to the 18th centuries, where the government used power to control industry and trade with the theoretical belief that national power is achieved and sustained by having constant large quantities of exports over imports. Nations' human and material resources are unevenly endowed, distributed and developed. This allows flow of labour, raw materials, capital and finished products across national boundaries and markets; thus resulting in "mercantilism" as the earliest international economic system that proposes massive and aggressive export over import to accumulate wealth, to have favourable balance of payment and trade and to be still relevant in today's economy.

➢ **The Theory of Absolute Advantage**

Adam Smith, the father of economics, thought that the basis of international trade was absolute cost advantage. According to his theory, trade between two countries would be mutually beneficial if one country could produce one commodity at absolute advantage (over the other commodity) and the other countries could, in turn, produce another commodity at an absolute advantage over the first. In other words, the principle of absolute advantage refers to the ability of a party (an individual, or firm, or country) to produce a greater quantity of a good, product, or service than competitors, using the same amount of resources. Adam Smith first described the principle of absolute advantage in the context of international trade, using labour as the only input. Since absolute advantage is determined by a simple comparison of labour productivity, it is possible for a nation to have no absolute advantage in anything; in that case, according to the theory of absolute advantage, no trade will occur with the other nation. It can be contrasted with the concept of comparative advantage which refers to the ability to produce specific goods at a lower opportunity cost.

Assumptions of the Absolute Advantage Theory:

• Trade between the two countries.

• He took into consideration a two-country and two-commodity framework for his analysis.

• There is no transportation cost.

• Smith assumed that the costs of the commodities were computed by the relative amounts of labour required in their respective production processes.

• He assumed that labour was mobile within a country but immobile between countries.

• He implicitly assumed that any trade between the two countries considered would take place if each of the two countries had an absolutely lower cost in the production of one of the commodities.

➢ **The Theory of Comparative Advantage**

In one of the most important concepts in economics, David Ricardo observed that trade was driven by comparative rather than absolute costs (of producing a good). One country may be more productive than others in all goods, in the sense that it can produce any good using fewer inputs (such as capital and labour) than other countries require to produce the same good. Ricardo's

insight was that such a country would still benefit from trading according to its comparative advantage—exporting products in which its absolute advantage was greatest, and importing products in which its absolute advantage was comparatively less (even if still positive). Even a country that is more efficient (has absolute advantage) in everything it makes would benefit from trade. Consider an example:

Country A: One hour of labour can produce either three kilograms of steel or two shirts.

Country B: One hour of labour can produce either one kilogram of steel or one shirt.

Country A is more efficient in both products.
Now suppose Country B offers to sell Country A two shirts in exchange for 2.5 kilograms of steel.

To produce these additional two shirts, Country B diverts two hours of work from producing (two kilograms) of steel.

Country A diverts one hour of work from producing (two) shirts. It uses that hour of work to instead produce three additional kilograms of steel.

Overall, the same number of shirts is produced: Country A produces two fewer shirts, but Country B produces two additional shirts.

However, more steel is now produced than before: Country A produces three additional kilograms of steel, while Country B reduces its steel output by two kilograms.

The extra kilogram of steel is a measure of the gains from trade.

Though a country may be twice as productive as its trading partners in making clothing, if it is three times as productive in making steel or building aeroplanes, it will benefit from making and exporting these products and importing clothes. Its partner will gain by exporting clothes—in which it has a comparative but

not absolute advantage—in exchange for these other products. The notion of comparative advantage also extends beyond physical goods to trade in services—such as writing computer code or providing financial products.

Because of comparative advantage, trade raises the living standards of both countries.

Douglas Irwin (2009) calls comparative advantage "good news" for economic development.

"Even if a developing country lacks an absolute advantage in any field, it will always have a comparative advantage in the production of some goods," and will trade profitably with advanced economies.

3   The Heckscher-Ohlin Theory of Trade

Differences in comparative advantage may arise for several reasons. In the early 20th century, Swedish economists Eli Heckscher and Bertil Ohlin identified the role of labour and capital,so-called factor endowments, as a determinant of advantage.

The Heckscher-Ohlin proposition maintains that countries tend to export goods whose production uses intensively the factor of production that is relatively abundant in the country.

Countries well endowed with capital—such as factories and machinery—should export capitalintensive products, while those well endowed with labour should export labour-intensive products. Economists today think that factor endowments matter, but that there are also other important influences on trade patterns.

The increase in competition coming from foreign firms puts pressure on profits, forcing less efficient firms to contract and making room for more efficient firms. Expansion and new entry bring with them better technologies and new product varieties. Likely the most important is that trade enables greater selection across different types of goods (say refrigerators). This explains why there is a lot of intra-industry trade (for example, countries that export household refrigerators may import industrial coolers), which is something that the factor endowment approach does not encompass.

There are clear efficiency benefits from trade that results in more products—not only more of the same products, but greater product variety. An even greater benefit may be the more efficient investment spending that results from firms having access to a wider variety and quality of intermediate and capital inputs (think lithium battery manufacturing by China rather than manufacturing electrical cars). By enhancing overall investment and facilitating innovation, trade can bring sustained higher growth.

Indeed, economic models used to assess the impact of trade typically neglect influences involving technology transfer and pro-competitive forces such as the expansion of product varieties. That is because these influences are difficult to model, and results that do incorporate them are subject to greater uncertainty. Where this has been done, however, researchers have concluded that the benefits of trade reforms—such as reducing tariffs and other nontariff barriers to trade—are much larger than suggested by conventional models.

The table 4.1.3 presents, though not exhaustive, a comparison of the theory of comparative costs and modern theory.

Comparison of Theory of Comparative Costs and Modern Theory

Theory of Comparative Costs	Modern Theory
The basis is the difference between ountries is comparative costs	Explains the causes of differences in comparative costs as differences in factor endowments
Based on labour theory of value	Based on money cost which is more realistic.
Considered labour as the sole factor of production and presents a one-factor (labour) model	Widened the scope to include labour and capital as important factors of production. This is 2-factor model and can be extended to more factors.
Treats international trade as quite distinct from domestic trade	International trade is only a special case of inter-regional trade.
Studies only comparative costs of the goods concerned	Considers the relative prices of the factors which influence the comparative costs of the goods
Attributes the differences in comparative advantage to differences in productive efficiency of workers	Attributes the differences in comparative advantage to the differences in factor endowments.

Does not take into account the factor price differences	Considers factor price differences as the main cause of commodity price differences
Does not provide the cause of differences in comparative advantage.	Explains the differences in comparative advantage in terms of differences in factor endowments.
Normative; tries to demonstrate the gains from international trade	Positive; concentrates on the basis of trade

> ## Globalization and New International Trade Theory

The revolution that swept through the theory of international trade in the first half of the 1980s-the rise of the so-called new trade theory'-left many of the insights of traditional trade theory intact. In particular, introducing imperfect competition and increasing returns into the picture does not alter the fundamental point that trade is a positive-sum game, generally carried on to countries' mutual benefit. Indeed, the new trade theory adds to the positive sum: by enlarging markets, international trade increases competition and allows greater exploitation of economies of scale, both of which represent gains over and above those due to comparative advantage.

The new trade theory suggests that in practice many traded goods are produced by industries that are both oligopolistic and subject to external economies (e.g., because of economies of scale in the production of nontraded intermediates). Thus instead of a picture of an international economy that is at a Pareto optimum, the new trade theory offers a picture of one in which markets normally lead to suboptimal results.

American economist and journalist Paul Krugman received the 2008 Nobel Prize for Economics for his work in economic geography and in identifying international trade patterns. In the late 1970s, Paul Krugman noticed that the accepted model that economists used to explain patterns of international trade did not fit the data. The Heckscher-Ohlin model predicted that trade would be based on such factors as the ratio of capital to labor, with "capital-rich" countries exporting capital-intensive goods and importing labor-intensive goods from "laborrich" countries. But Krugman noticed that most international trade takes place between countries with roughly the same ratio of capital to labor. The auto industry in capital-intensive Sweden, for example, exports

cars to capital-intensive America, while Swedish consumers also import cars from America. This is particularly true in key economic sectors in India such as electronics, IT, food, and automotive. We have cars made in India, yet we purchase many cars made in other countries.

Krugman defended free trade. He was passionate and showed deep concern for the wellbeing of people around the world. One such example is "In Praise of Cheap Labor, " published in Slate in 1997. In it, Krugman told of Smokey Mountain, a huge garbage dump in Manila in which men, women, and children made a living combing through garbage for valuable items.

Low-wage jobs in multinational companies' factories in the Philippines, Bangladesh, and other poor countries, he noted, are much better alternatives. Because multinational companies hired many of these poor workers, he wrote that "the result has been to move hundreds of millions of people from abject poverty to something still awful but nonetheless significantly better.

According to NTT, two key concepts give advantages to countries that import goods to compete with products from the home country:

❖ Economies of Scale: As a firm produces more of a product, its cost per unit keeps going down. So if the firm serves domestic as well as foreign market instead of just one, then it can reap the benefit of large scale of production consequently the profits are likely to be higher.

❖ Network effects refer to the way one person's value for a good or service is affected by the value of that good or service to others. The value of the product or service is enhanced as the number of individuals using it increases. This is also referred to as the 'bandwagon effect'. Consumers like more choices, but they also want products and services with high utility, and the network effect increases utility obtained from these products over others. A good example will be Mobile App such as What's App and software like Microsoft Windows.

MODULE MULTIPLE CHOICE QUESTIONS

1. Which of the following does not represent a difference between internal trade and international trade?
    (a) transactions in multiple currencies
    (b) homogeneity of customers and currencies
    (c) differences in legal systems
    (d) none of the above

2. The theory of absolute advantage states that
    (a) national wealth and power are best served by increasing exports and decreasing imports
    (b) nations can increase their economic well-being by specializing in the production of goods they produce more efficiently than anyone else.
    (c) that the value or price of a commodity depends exclusively on the amount of labour going into its production and therefore factor prices will be the same
    (d) differences in absolute advantage explains differences in factor endowments in different countries

3. Which of the following theories advocates that countries should produce those goods for which it has the greatest relative advantage?
    (a) Modern theory of international trade
    (b) The factor endowment theory
    (c) The Heckscher-Ohlin Theory
    (d) None of the above

4. Which of the following holds that a country can increase its wealth by encouraging exports and discouraging imports
    (a) Capitalism
    (b) Socialism
    (c) Mercantilism
    (d) Laissez faire

5. Given the number of labour hours to produce cloth and grain in two countries, which country should produce grain?

Labour cost (hours) for production of one unit

	Country A	Country B
Cloth	40	80
Grain	80	40

(a) Country A (b) Country B

(c) Neither A nor B (d) Both A and B

6. According to the theory of comparative advantage

(a) trade is a zero-sum game so that the net change in wealth or benefits among the participants is zero.

(b) trade is not a zero-sum game so that the net change in wealth or benefits among the participants is positive

(c) nothing definite can be said about the gains from trade

(d) gains from trade depends upon factor endowment and utilization

7. Given the number of labour hours to produce wheat and rice in two countries and that these countries specialise and engage in trade at a relative price of 1:1 what will be the gain of country X?

Labour cost (hours) for production of one unit

	Wheat	Rice
Country X	10	20
Country Y	20	10

(a) 20 labour hours. (b) 10 labour hours

(c) 30 labour hours (d) Does not gain anything

8. Assume India and Bangladesh have the unit labour requirements for producing tables and mats shown in the table below. It follows that:

Labour cost (hours) for production of one unit

	India	Bangladesh
Tables	3	8
Mats	2	1

(a) Bangladesh has a comparative advantage in mats

(b) India has a comparative advantage in tables

(c) Bangladesh has an absolute advantage in mats

(d) All the above are true

9. Comparative advantage refers to

(a) a c ountry's ability t o produce some g ood or service at the lowest possible cost compared to other countries

(b) a country's ability to produce some good or service at a lower opportunity cost than other countries.

(c) Choosing a productive method which uses minimum of the abundant factor

(d) (a) and (b) above

10. Ricardo explained the law of comparative advantage on the basis of

(a) opportunity costs

(b) the law of diminishing returns

(c) economies of scale

(d) the labour theory of value

ANSWERS:

1	(b)	2	(b)	3	(d)	4	(c)	5	(b)	6	(b)
7	(b)	8	(d)	9	(b)	10	(d)				

SUMMARY

➢ International trade is the exchange of goods and services as well as resources between countries and involves greater complexity compared to internal trade.

➢ Trade can be a powerful stimulus to economic efficiency, contributes to economic growth and rising incomes, enlarges manufacturing capabilities, ensures benefits from economies of large-scale production, and enhances competitiveness and profitability by adoption of cost reducing technology and business practices.

➢ Efficient deployment of productive resources to their best use, productivity gains, decrease in the likelihood of domestic monopolies, cost-effective sourcing of inputs and components internationally, innovative products at lower prices and wider choice in products and services for consumers are claimed as benefits of trade.

➢ Enhanced foreign exchange reserves, increased scope for mechanization and specialisation, research and development, creation of jobs, reduction in poverty, augmenting factor incomes, raising standards of livelihood, increase in overall demand for goods and services and greater stimulus to innovative services are other benefits of trade.

➢ There are also other possible positive outcomes of trade in the form of prospects of employment generating investments, improvement in the quality of output, superior products, labour and environmental standards, broadening of productive base, export diversification, stability in prices and supply of goods, human resource development and strengthening of bonds between nations.

➢ The arguments against trade converge on negative labour market outcomes, economic exploitation, profit-driven exhaustion of natural resources, shift towards a consumer culture, risky dependence, shortages resulting in inflation, disregard for welfare of people, quick transmission of trade cycles, rivalries and risks in trade associated with changes in governments' policies of participating countries.

➢ Mercantilism advocated maximizing exports in order to bring in more precious metals and minimizing imports through the state imposing very high tariffs on foreign goods.

➢ According to Adam Smith's Absolute Cost Advantage theory, a country will specialize in the production and export of a commodity in which it has an absolute cost advantage.

➢ Ricardo's theory of comparative advantage states that a nation should specialize in the production and export of the commodity in which its absolute disadvantage is smaller (this is the commodity of its comparative advantage) and import the commodity in which its absolute disadvantage is greater (this is the commodity of its comparative disadvantage).

➢ Haberler resolved the issue of dependence on labour alone in the case of theory of comparative advantage when he introduced the opportunity cost concept. Opportunity cost which is the value of the forgone option.

➢ The Heckscher-Ohlin theory of trade, also referred to as Factor-Endowment Theory of Trade or Modern Theory of Trade, states that comparative advantage in cost of production is explained exclusively by the differences in factor endowments.

➢ A country tends to specialize in the export of a commodity whose production requires intensive use of its abundant resources and imports a commodity whose production requires intensive use of its scarce resources.

➢ Accordingly, a capital abundant country will produce and export capital-intensive goods relatively more cheaply and a labour-abundant country will produce and export labour-intensive goods relatively more cheaply than other country.

➢ The Factor-Price Equalization Theorem states that international trade equalizes the factor prices between the trading nations. Therefore, with free trade, wages and returns on capital will converge across the countries.

➢ NTT is the latest entrant to explain the rising proportion of world trade between the developed and bigger developing economies (such as BRICS), which trade in similar products. These countries constitute more than 50% of world trade.

UNIT 2: THE INSTRUMENTS OF TRADE POLICY

1. INTRODUCTION

Before we go into the subject matter of this unit, we shall take a quick look at a few recent developments in India's international trade strategy.

- After a decade of eschewing free trade deals, India has embarked on an FTA-signing spree that is quickly transforming the country into one of the most FTA-engaged countries in the world.

- The reinvigorated Free Trade Agreement rush began with an agreement with Mauritius on 1 April 2021, followed by fast-track negotiations with the United Arab Emirates (UAE), Australia, the United Kingdom (UK), Canada and the European Union (EU).

- On 18 February 2022, a comprehensive economic partnership agreement (CEPA) with the UAE was concluded within 90 days of the commencement of negotiations and has been in force since 1 May 2022. In addition, an Economic Cooperation and Trade Agreement (ECTA) with Australia also concluded on 2 April 2022.

- The next highly-anticipated Free Trade Agreement in the works is with the UK, which is expected to conclude by Diwali (the festival of lights) in October 2022. Free Trade Agreement discussions are also on the fast track with Canada, the EU, as well as with the Gulf Cooperation Council (GCC – Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE) and Israel.

As we know, under free trade, buyers and sellers from separate economies voluntarily trade with minimum of state interference. The free interplay of market forces of supply and demand decides prices. Protectionism, on the other hand, is a state policy aimed to protect domestic producers against foreign competition through the use of tariffs, quotas

and non-tariff trade policy instruments. Trade liberalization refers to opening up of domestic markets to goods and services from the rest of the world by bringing down trade barriers.

In unit 1, we have seen that there are clear efficiency benefits from trade in terms of economic growth, job-creation and welfare. The persuasive academic arguments for open trade presuppose that fair competition, without distortions, is maintained between domestic and foreign producers. However, it is a fact that fair competition

does not always exist and unobstructed international trade also brings in severe dislocation to many domestic firms and industries on account of difficult adjustment problems. Therefore, individuals and organizations continue to pressurize policymakers and regulatory authorities to restrict imports or to artificially boost up the size of exports.

Historically, as part of their protectionist measures, governments of different countries have applied many different types of policy instruments, not necessarily based on their economic merit, for restricting the free flow of goods and services across national boundaries. While some such measures of government intervention are simple, widespread, and relatively transparent, others are complex, less apparent and frequently involve many types of distortions.

In this unit, we shall describe some of the most frequently used forms of interference with trade. Understanding the uses and implications of the common trade policy instruments, will enable formulation of appropriate policy responses and more balanced dialogues on trade policy issues and international trade agreements.
Trade policy encompasses all instruments that governments may use to promote or restrict imports and exports. Trade policy also includes the approach taken by countries in trade negotiations. While participating in the multilateral trading system and/or while negotiating bilateral trade agreements, countries assume obligations that shape their national trade policies. The instruments of trade policy that countries typically use to restrict imports and/ or to encourage exports can be broadly classified into price- related measures such as tariffs and non-price measures or non-tariff measures (NTMs).

In the following sections, we shall briefly touch upon the different trade policy measures
adopted by countries to protect their domestic industries.

2.   TARIFFS

Tariffs, also known as customs duties, are basically taxes or duties imposed on goods and services which are imported or exported. Different tariffs are generally applied to different commodities. It is defined as a financial charge in the form of a tax, imposed at the border on goods going from one customs territory to another. They are the most visible and universally used trade measures that determine market

access for goods. Instead of a single tariff rate, countries have a tariff schedule which specifies the tariff collected on every particular good and service. Import duties being pervasive than export duties, tariffs are often identified with import duties and in this unit, the term 'tariff' would refer to import duties.

Tariffs are aimed at altering the relative prices of goods and services imported, so as to contract the domestic demand and thus regulate the volume of their imports. Tariffs leave the world market price of the goods unaffected; while raising their prices in the domestic market.

The main goals of tariffs are to raise revenue for the government, and more importantly to protect the domestic import-competing industries.

➢ **Forms of Import Tariffs**

(i) Specific Tariff: Specific tariff is the fixed amount of money per physical unit oraccording to the weight or measurement of the commodity imported or exported. This tariff can vary according to the type of good imported. Example, a specific tariff of ₹1000/ may be charged on each imported bicycle. The disadvantage of specific tariff as an instrument for protection of domestic producers is that its protective value varies inversely with the price of the import. For example: if the price of the imported cycle is ₹ 5,000/- and the rate of tariff is 20%; then, if due to inflation, the price of bicycle rises to ₹ 10,000, the specific tariff is still only 10% of the value of the import. Since the calculation of these duties does not involve the value of merchandise, customs valuation is not applicable in this case.

(ii) Ad valorem tariff: When the duty is levied as a fixed percentage of the value of the traded commodity, it is called as valorem tariff. An ad valorem tariff is levied as a constant percentage of the monetary value of one unit of the imported good. A 20% ad valorem tariff on any bicycle generates a ₹ 1000/ payment on each imported bicycle priced at ₹ 5,000/ in the world market; and if the price rises to ₹10,000, it generates a payment of ₹ 2,000/. While ad valorem tariff preserves the protective value of tariff on home producer, it gives incentives to deliberately undervalue the good's price on invoices and bills of lading to reduce the tax burden. Nevertheless, ad valorem tariffs are widely used across the world.

There are many other variations of the above tariffs, such as:

(a) **Mixed Tariffs:** Mixed tariffs are expressed either on the basis of the value of the imported goods (an ad valorem rate) or on the basis of a unit of measure of the imported goods (a specific duty) depending on which generates the most income (or least income at times) for the nation. For example, duty on cotton: 5 per cent ad valorem or ₹ 3000/per tonne, whichever is higher.

Compound Tariff or a Compound Duty is a combination of an ad valorem and a specific tariff. That is, the tariff is calculated on the basis of both the value of the imported goods (an ad valorem duty) and a unit of measure of the imported goods (a specific duty). It is generally calculated by adding up a specific duty to an ad valorem duty. Thus, on an import with quantity q and price p, a compound tariff collects a revenue equal to tsq + tapq, where ts is the specific tariff and ta is the ad valorem tariff. For example: duty on cheese at 5 per cent advalorem plus 100 per kilogram.

(b) **Technical/Other Tariff:** These are calculated on the basis of the specific contents of the imported goods i.e. the duties are payable by its components or related items. For example: ₹ 3000/ on each solar panel plus ₹ 50/ per kg on the battery.

(c) **Tariff Rate Quotas:** Tariff rate quotas (TRQs) combine two policy instruments: quotas and tariffs. Imports entering under the specified quota portion are usually subject to alower (sometimes zero) tariff rate. Imports above the quantitative threshold of the quota face a much higher tariff.

(d) **Most-Favoured Nation Tariffs:** MFN tariffs refer to import tariffs which countries promise to impose on imports from other members of the WTO, unless the country is part of a preferential trade agreement (such as a free trade area or customs union).

This means that, in practice, MFN rates are the highest (most restrictive) that WTO members charge each other. Some countries impose higher tariffs on countries that are not part of the WTO.

(e) **Variable Tariff:** A duty typically fixed to bring the price of an imported commodity up to level of the domestic support price for the commodity.

(f) **Preferential Tariff:** Nearly all countries are part of at least one preferential trade agreement, under which they promise to give another country's products lower tariffs than their MFN rate. These agreements are reciprocal. A lower tariff is charged from goods imported from a country which is given preferential treatment. Examples are preferential duties in the EU region under which a good coming from one EU country to another is charged zero tariff rate. Another example is North American Free Trade Agreement (NAFTA) among Canada, Mexico and the USA where the preferential tariff rate is zero on essentially all products. Countries, especially the affluent ones also grant 'unilateral preferential treatment' to select list of products from specified developing countries. The Generalized System of Preferences (GSP) is one such system which is currently prevailing.

(g) **Bound Tariff:** Under this, a WTO member binds itself with a legal commitment not to raise tariff rate above a certain level. By binding a tariff rate, often during negotiations, the members agree to limit their right to set tariff levels beyond a certain level. The bound rates are specific to individual products and represent the maximum level of import duty that can be levied on a product imported by that member. A member is always free to impose a tariff that is lower than the bound level. Once bound, a tariff rate becomes permanent and a member can only increase its level after negotiating with its trading partners and compensating them for possible losses of trade. A bound tariff ensures transparency and predictability.

(h) **Applied Tariffs:** An 'applied tariff' is the duty that is actually charged on imports on a Most-Favoured Nation (MFN) basis. A WTO member can have an applied tariff for a product that differs from the bound tariff for that product as long as the applied level is not higher than the bound level.

(i) **Escalated Tariff** structure refers to the system wherein the nominal tariff rates on imports of manufactured goods are higher than the nominal tariff rates on intermediate inputs and raw materials, i.e. the tariff on a product increases as that product moves through the value-added chain. For example, a four percent tariff on iron ore or iron ingots and twelve percent tariff on steel pipes. This type of tariff is discriminatory as it protects manufacturing industries in

importing countries and dampens the attempts of developing manufacturing industries of exporting countries.

This has special relevance to trade between developed countries and developing countries. Developing countries are thus forced to continue to be suppliers of raw materials without much value addition.

(j)   **Prohibitive tariff:** A prohibitive tariff is one that is set so high that no imports can enter.

(k)   **Import subsidies:** Import subsidies also exist in some countries. An import subsidy is simply a payment per unit or as a percent of value for the importation of a good (i.e., a negative import tariff).

(l)   **Tariffs as Response to Trade Distortions:** Sometimes countries engage in 'unfair' foreign-trade practices which are trade distorting in nature and adverse to the interests of the domestic firms. The affected importing countries, upon confirmation of the distortion, respond quickly by measures in the form of tariff responses to offset the distortion. These policies are often referred to as "trigger-price" mechanisms. The following sections relate to such tariff responses to distortions related to foreign dumping and export subsidies.

(m)   **Anti-dumping Duties:** An anti-dumping duty is a protectionist tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value. Dumping occurs when manufacturers sell goods in a foreign country below the sales prices in their domestic market or below their full average cost of the product.

Dumping may be persistent, seasonal, or cyclical. Dumping may also be resorted to as a predatory pricing practice to drive out established domestic producers from the market and to establish monopoly position. Dumping is an international price discrimination favouring buyer of exports, but in fact, the exporters deliberately forego money in order to harm the domestic producers of the importing country.

Dumping is unfair and constitutes a threat to domestic producers and therefore when dumping is found, anti-dumping measures may be initiated as a safeguard instrument by imposing additional import duties/tariffs so as

to offset the foreign firm's unfair price advantage. This is justified only if the domestic industry is seriously injured by import competition, and protection is in the national interest (that is, the associated costs to consumers would be less than the benefits that would accrue to producers).

For example: In January 2017, India imposed anti-dumping duties on colour-coated or pre-painted flat steel products imported into the country from China and European nations for a period not exceeding six months and for jute and jute products from Bangladesh and Nepal.

(n) Countervailing Duties: Countervailing duties are tariffs that aim to offset the artificially low prices charged by exporters who enjoy export subsidies and tax concessions offered by the governments in their home country. If a foreign country does not have a comparative advantage in a particular good and a government subsidy allows the foreign firm to be an exporter of the product, then the subsidy generates a distortion from the free-trade allocation of resources. In such cases, CVD is charged in an importing country to negate the advantage that exporters get from subsidies to ensure fair and market-oriented pricing of imported products and thereby protecting domestic industries and firms. For example, in 2016, in order to protect its domestic industry, India imposed 12.5% countervailing duty on Gold jewellery imports from ASEAN.

➢ **Effects of Tariffs**

A tariff levied on an imported product affects both the exporting country and the importing country.

(i) Tariff barriers create obstacles to trade, decrease the volume of imports and exports and therefore of international trade. The prospect of market access of the exporting country is worsened when an importing country imposes a tariff.

(ii) By making imported goods more expensive, tariffs discourage domestic consumers from consuming imported foreign goods. Domestic consumers suffer a loss in consumer surplus because they must now pay a higher price for the good and also because compared to free trade quantity, they now consume lesser quantity of the good.

(iii) Tariffs encourage consumption and production of the domestically produced import substitutes and thus protect domestic industries.

(iv) Producers in the importing country experience an increase in well-being as a result of imposition of tariff. The price increase of their product in the domestic

market increases producer surplus in the industry. They can also charge higher prices than would be possible in the case of free trade because foreign competition has reduced.

(v)   The price increase also induces an increase in the output of the existing firms and possibly addition of new firms due to entry into the industry to take advantage of the new high profits and consequently an increase in employment in the industry. (vi) Tariffs create trade distortions by disregarding comparative advantage and prevent countries from enjoying gains from trade arising from comparative advantage. Thus, tariffs discourage efficient production in the rest of the world and encourage inefficient production in the home country.

(vii) Tariffs increase government revenues of the importing country by the value of the total tariff it charges. Trade liberalization in recent decades, either through government policy measures or through negotiated reduction through the WTO or regional and bilateral free trade agreements, has diminished the importance of tariff as a tool of protection. Currently, trade policy is focusing increasingly on not so easily observable forms of trade barriers usually called non-tariff measures (NTMs). NTMs are thought to have important restrictive and distortionary effects on international trade. They have become so invasive that the benefits due to tariff reduction are practically offset by them.

➢   NON–TARIFF MEASURES (NTMS)

From the discussion above, we have learnt that tariffs constitute the visible barriers to trade and have the effect of increasing the prices of imported merchandise. By contrast, the non- tariff measures which have come into greater prominence than the conventional tariff barriers, constitute the hidden or 'invisible' measures that interfere with free trade.

Non-tariff measures (NTMs) are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both (UNCTAD, 2010). Non-tariff measures comprise all types of measures which alter the conditions of international trade, including policies and regulations that restrict trade and those that facilitate it. NTMs consist of mandatory requirements, rules, or regulations that are legally set by the government of the exporting, importing, or transit country.

It should be kept in mind that NTMs are not the same as non-tariff barriers (NTBs). NTMs are sometimes used as means to circumvent free-trade rules and favour domestic industries at the expense of foreign competition. In this case they are called non-tariff barriers (NTBs). In other words, non-tariff barriers are discriminatory non-tariff measures imposed by governments to favour domestic over foreign suppliers. NTBs are thus a subset of NTMs that have a 'protectionist or discriminatory intent'. Compared to NTBs, non-tariff measures encompass a broader set of measures.

According to WTO agreements, the use of NTMs is allowed under certain circumstances. Examples of this include the Technical Barriers to Trade (TBT) Agreement and the Sanitary and Phytosanitary Measures (SPS) Agreement, both negotiated during the Uruguay Round. However, NTMs are sometimes used as a means to circumvent free-trade rules and favour domestic industries at the expense of foreign competition. In this case they are called nontariff barriers (NTBs). It is very difficult, and sometimes impossible, to distinguish legitimate NTMs from protectionist NTMs, especially because the same measure may be used for several reasons.

Depending on their scope and/or design NTMs are categorized as:

I. **Technical Measures:** Technical measures refer to product-specific properties such as characteristics of the product, technical specifications and production processes. These measures are intended for ensuring product quality, food safety, environmental protection, national security and protection of animal and plant health.

II. **Non-technical Measures:** Non-technical measures relate to trade requirements; for example; shipping requirements, custom formalities, trade rules, taxation policies, etc. These are further distinguished as:

   (a) Hard measures (e.g. Price and quantity control measures),

   (b) Threat measures (e.g. Anti-dumping and safeguards) and

   (c) Other measures such as trade-related finance and investment measures.

Furthermore, the categorization also distinguishes between:

(i) Import-related measures which relate to measures imposed by the importing country, and

(ii) Export-related measures which relate to measures imposed by the exporting country itself.

(iii) In addition, to these, there are procedural obstacles (PO) which are practical problems in administration, transportation, delays in testing, certification etc which may make it difficult for businesses to adhere to a given regulation.

➢ Technical Measures

I. Sanitary and Phytosanitary (SPS) Measures: SPS measures are applied to protect human, animal or plant life from risks arising from additives, pests, contaminants, toxins or disease-causing organisms and to protect biodiversity.

These include ban or prohibition of import of certain goods, all measures governing quality and hygienic requirements, production processes, and associated compliance assessments. For example; prohibition of import of poultry from countries affected by avian flu, meat and poultry processing standards to reduce pathogens, residue limits for pesticides in foods etc.

II. Technical Barriers To Trade (TBT): Technical Barriers to Trade (TBT) which cover both food and non-food traded products refer to mandatory 'Standards and Technical Regulations' that define the specific characteristics that a product should have, such as its size, shape, design, labelling / marking / packaging, functionality or performance and production methods, excluding measures covered by the SPS Agreement. The specific procedures used to check whether a product is really conforming to these requirements (conformity assessment procedures e.g. testing, inspection and certification) are also covered in TBT. This involves compulsory quality, quantity and price control of goods before shipment from the exporting country.

Just as SPS, TBT measures are standards-based measures that countries use to protect their consumers and preserve natural resources, but these can also be used effectively as obstacles to imports or to discriminate against imports and protect domestic products. Altering products and production processes to comply with the diverse requirements in export

markets may be either impossible for the exporting country or would obviously raise costs, hurting the competitiveness of the exporting country. Some examples of TBT are: food laws, quality standards, industrial standards, organic certification, eco-labelling, and marketing and label requirements.

➢ **Non-technical Measures**

These include different types of trade protective measures which are put into operation to neutralize the possible adverse effects of imports in the market of the importing country. Following are the most commonly practiced measures in respect of imports:

(i) **Import Quotas:** An import quota is a direct restriction which specifies that only a certain physical amount of the good will be allowed into the country during a given time period, usually one year. Import quotas are typically set below the free trade level of imports and are usually enforced by issuing licenses. This is referred to as a binding quota; a nonbinding quota is a quota that is set at or above the free trade level of imports, thus having little effect on trade.

Import quotas are mainly of two types: absolute quotas and tariff-rate quotas. Absolute quotas or quotas of a permanent nature limit the quantity of imports to a specified level during a specified period of time and the imports can take place any time of the year. No condition is attached to the country of origin of the product. For example: 1000 tonnes of fish import which can take place any time during the year from any country. When country allocation is specified, a fixed volume or value of the product must originate in one or more countries. Example: A quota of 1000 tonnes of fish that can be imported any time during the year, but where 750 tonnes must originate in country A and 250 tonnes in country B. In addition, there are seasonal quotas and temporary quotas.

With a quota, the government, of course, receives no revenue. The profits received by the holders of such import licenses are known as 'quota rents'. While tariffs directly interfere with prices that can be charged for an imported good in the domestic market, import quota interferes with the market prices indirectly. Obviously, an import quota always raises the

domestic price of the imported good. The license holders are able to buy imports and resell them at a higher price in the domestic market and they will be able to earn a 'rent' on their operations over and above the profit they would have made in a free market.

The welfare effects of quotas are similar to that of tariffs. If a quota is set below free trade level, the amount of imports will be reduced. A reduction in imports will lower the supply of the good in the domestic market and raise the domestic price. Consumers of the product in the importing country will be worse-off because the increase in the domestic price of both imported goods and the domestic substitutes reduces consumer surplus in the market. Producers in the importing country are better-off as a result of the quota. The increase in the price of their product increases producer surplus in the industry. The price increase also induces an increase in output of existing firms (and perhaps the addition of new firms), an increase in employment, and hence an increase in profit.

(ii) **Price Control Measures:** Price control measures (including additional taxes and charges) are steps taken to control or influence the prices of imported goods in order to support the domestic price of certain products when the import prices of these goods are lower. These are also known as 'para-tariff' measures and include measures, other than tariff measures, that increase the cost of imports in a similar manner, i.e. by a fixed percentage or by a fixed amount. Example: A minimum import price established for sulphur.

(iii) **Non-automatic Licensing and Prohibitions:** These measures are normally aimed at limiting the quantity of goods that can be imported, regardless of whether they originate from different sources or from one particular supplier. These measures may take the form of nonautomatic licensing, or complete prohibitions. For example, textiles may be allowed only on a discretionary license by the importing country. India prohibits import/export of arms and related material from/to Iraq. Further, India also prohibits many items (mostly of animal origin) falling under 60 EXIM codes.

(iv)   **Financial Measures:** The objective of financial measures is to increase import costs by regulating the access to and cost of foreign exchange for imports and to define the terms of payment. It includes measures such as advance payment requirements and foreign exchange controls denying the use of foreign exchange for certain types of imports or for goods imported from certain countries. For example, an importer may be required to pay a certain percentage of the value of goods imported three months before the arrival of goods or foreign exchange may not be permitted for import of newsprint.

(v)   **Measures Affecting Competition:** These measures are aimed at granting exclusive or special preferences or privileges to one or a few limited group of economic operators. It may include government imposed special import channels or enterprises, and compulsory use of national services. For example, a statutory marketing board may be granted exclusive rights to import wheat: or a canalizing agency (like State Trading Corporation) may be given monopoly right to distribute palm oil. When a state agency or a monopoly import agency sells in the domestic market at prices above those existing in the world market, the effect will be similar to an import tariff.

(vi)   **Government Procurement Policies:** Government procurement policies may interfere with trade if they involve mandates that the whole of a specified percentage of government purchases should be from domestic firms rather than foreign firms, despite higher prices than similar foreign suppliers. In accepting public tenders, a government may give preference to the local tenders rather than foreign tenders.

(vii)   **Trade-Related Investment Measures:** These measures include rules on local content requirements that mandate a specified fraction of a final good should be produced domestically.

(a)   requirement to use certain minimum levels of locally made components, (25 percent of components of automobiles to be sourced domestically)

(b)   restricting the level of imported components, and

(c)   limiting the purchase or use of imported products to an amount

related to the quantity or value of local products that it exports. (A firm may import only up to 75 % of its export earnings of the previous year)

(viii) **Distribution Restrictions:** Distribution restrictions are limitations imposed on the distribution of goods in the importing country involving additional license or certification requirements. These may relate to geographical restrictions or restrictions as to the type of agents who may resell. For example: a restriction that imported fruits may be sold only through outlets having refrigeration facilities.

(ix) **Restriction on Post-sales Services:** Producers may be restricted from providing after- sales services for exported goods in the importing country. Such services may be reserved to local service companies of the importing country.

(x) **Administrative Procedures:** Another potential obstruction to free trade is the costly and time-consuming administrative procedures which are mandatory for import of foreign goods. These will increase transaction costs and discourage imports. The domestic importcompeting industries gain by such non- tariff measures. Examples include specifying particular procedures and formalities, requiring licenses, administrative delay, red-tape and corruption in customs clearing frustrating the potential importers, procedural obstacles linked to prove compliance etc.

(xi) **Rules of origin:** Country of origin means the country in which a good was produced, or in the case of a traded service, the home country of the service provider. Rules of origin are the criteria needed by governments of importing countries to determine the national source of a product. Their importance is derived from the fact that duties and restrictions in several cases depend upon the source of imports. Important procedural obstacles occur in the home countries for making available certifications regarding origin of goods, especially when different components of the product originate in different countries.

(xii) **Safeguard Measures:** These are initiated by countries to restrict imports of a product temporarily if its domestic industry is injured or threatened with serious injury caused by a surge in imports. Restrictions must be for a limited time and non-discriminatory.

(xiii) **Embargos:** An embargo is a total ban imposed by government on import or export of some or all commodities to particular country or regions for a specified or indefinite period. This may be done due to political reasons or for other reasons such as health, religious sentiments. This is the most extreme form of trade barrier.

➢ EXPORT-RELATED MEASURES

(i) **Ban on exports:** Export-related measures refer to all measures applied by the government of the exporting country including both technical and non-technical measures. For example, during periods of shortages, export of agricultural products such as onion, wheat etc. may be prohibited to make them available for domestic consumption. Export restrictions have an important effect on international markets. By reducing international supply, export restrictions have been effective in increasing international prices.

(ii) **Export Taxes:** An export tax is a tax collected on exported goods and may be either specific or ad valorem. The effect of an export tax is to raise the price of the good and to decrease exports. Since an export tax reduces exports and increases domestic supply, it also reduces domestic prices and leads to higher domestic consumption.

(iii) **Export Subsidies and Incentives:** We have seen that tariffs on imports hurt exports and therefore countries have developed compensatory measures of different types for exporters like export subsidies, duty drawback, duty-free access to imported intermediates etc. Governments or government bodies also usually provide financial contribution to domestic producers in the form of grants, loans, equity infusions etc. or give some form of income or price support. If such policies on the part of governments are directed at encouraging domestic industries to sell specified products or services abroad, they can be considered as trade policy tools.

(iv) **Voluntary Export Restraints:** Voluntary Export Restraints (VERs) refer to a type of informal quota administered by an exporting country voluntarily restraining the quantity of goods that can be exported out of that country during a specified period of time. Such restraints originate primarily from political considerations and are imposed based on negotiations of the importer with the exporter. The inducement for the exporter to agree to a VER is mostly to appease the importing country and to avoid the effects of possible retaliatory trade restraints that may be imposed by the importer. VERs may arise when the import-competing industries seek protection from a surge of imports from particular exporting countries. VERs cause, as do tariffs and quotas, domestic prices to rise and cause loss of domestic consumer surplus.

Over the past few decades, significant transformations are happening in terms of growth as well as trends of flows and patterns of global trade. The increasing importance of developing countries has been a salient feature of the shifting global trade patterns. Fundamental changes are taking place in the way countries associate themselves for international trade and investments. Trading through regional arrangements which foster closer trade and economic relations is shaping the global trade landscape in an unprecedented way. Alongside, the trading countries also have devised ingenious policies aimed at protecting their economic interests. The discussions in this unit are in no way comprehensive considering the faster pace of discovery of such protective strategies. Students are expected to get themselves updated on such ongoing changes.

MODULE MULTIPLE CHOICE QUESTIONS

1. A specific tariff is
    (a) a tax on a set of specified imported good
    (b) an import tax that is common to all goods imported during a given period
    (c) a specified fraction of the economic value of an imported good
    (d) a tax on imports defined as an amount of currency per unit of the good

2. A tariff on imports is beneficial to domestic producers of the imported good because
    (a) they get a part of the tariff revenue
    (b) it raises the price for which they can sell their product in the domestic market
    (c) it determines the quantity that can be imported to the country
    (d) it reduces their producer surplus, making them more efficient

3. A tax applied as a percentage of the value of an imported good is known as
    (a) preferential tariff
    (b) ad valorem tariff
    (c) specific tariff
    (d) mixed or compound tariff

4. Escalated tariff refers to
    (a) nominal tariff rates on raw materials which are greater than tariffs on manufactured products
    (b) nominal tariff rates on manufactured products which are greater than tariffs on raw materials
    (c) a tariff which is escalated to prohibit imports of a particular good to protect domestic industries
    (d) none of the above

5. Voluntary export restraints involve:
    (a) an importing country voluntarily restraining the quantity of goods that can be exported into the country during a specified period of time
    (b) domestic firms agreeing to limit the quantity foreign products sold in their domestic markets

(c)   an exporting country voluntarily restraining the quantity of goods that can be exported out of a country during a specified period of time

(d)   quantitative restrictions imposed by the importing country's government.

6.   Anti-dumping duties are

(a)   additional import duties so as to offset the effects of exporting firm's unfair charging of prices in the foreign market which are lower than production costs.

(b)   tadditional import duties so as to offset the effects of exporting firm's increased competitiveness due to subsidies by government

(c)   additional import duties so as to offset the effects of exporting firm's unfair charging of lower prices in the foreign market

(d)   Both (a) and (c) above

7.   A countervailing duty is

(a)   a tariff that aim to offset artificially low prices charged by exporters who enjoy export subsidies and tax concessions in their home country

(b)   charged by importing countries to ensure fair and market-oriented pricing of imported products

(c)   charged by importing countries to protect domestic industries and firms from unfair price advantage arising from subsidies

(d)   All the above

8.   Which of the following is an outcome of tariff?

(a)   create obstacles to trade and increase the volume of imports and exports

(b)   domestic consumers enjoy consumer surplus because consumers must now pay only a lower price for the good

(c)   discourage domestic consumers from consuming imported foreign goods and encourage consumption of domestically produced import substitutes

(d)   increase government revenues of the importing country by more than value of the total tariff it charges

9.   SPS measures and TBTs are

(a)   permissible under WTO to protect the interests of countries

(b)   may result in loss of competitive advantage of developing countries

(c)   increases the costs of compliance to the exporting countries

(d)   All the above

10. Which of the following is not a non-tariff barrier.

    (a) Complex documentation requirements

    (b) Import quotas on specific goods

    (c) Countervailing duties charged by importing country

    (d) Pre shipment product inspection and certification requirements

11. Under tariff rate quota

    (a) countries promise to impose tariffs on imports from members other than those who are part of a preferential trade agreement

    (b) a country permits an import of limited quantities at low rates of duty but subjects an excess amount to a much higher rate

    (c) lower tariff is charged from goods imported from a country which is given preferential treatment

    (d) none of the above

12. Non -tariff barriers (NTBs) include all of the following except:

    (a) import quotas

    (b) tariffs

    (c) export subsidies

    (d) technical standards of products

ANSWERS:

1	(d)	2	(b)	3	(b)	4	(b)	5	(c)	6	(d)
7	(d)	8	(c)	9	(d)	10	(c)	11	(b)	12	(b)

SUMMARY

➤ Trade policy encompasses all instruments that governments may use to promote or restrict imports and exports.

➤ Trade policies are broadly classified into price-related measures such as tariffs and non-price measures or non-tariff measures (NTMs).

➤ Tariff, also known as customs duty is defined as a financial charge in the form of a tax, imposed at the border on goods going from one customs territory to another. Tariffs are the most visible and universally used trade measures.

➤ A specific tariff is an import duty that assigns a fixed monetary tax per physical unit of the good imported whereas an ad valorem tariff is levied as a constant percentage of the monetary value of one unit of the imported good.

➤ Mixed tariffs are expressed either on the basis of the value of the imported goods (an ad valorem rate) or on the basis of a unit of measure of the imported goods (a specific duty), depending on desired yields.

➤ Compound Tariff or a compound duty is a combination of an ad valorem and a specific tariff and is calculated on the basis of both the value of the imported goods (an ad valorem duty) and a unit of measure of the imported goods.

➤ Tariff rate quotas (TRQs) combine two policy instruments namely quotas and tariffs.

➤ MFN tariffs are what countries promise to impose on imports from all members of the WTO, unless the country is part of a preferential trade agreement (such as a free trade area or customs union).

➤ Preferential tariff occurs when a country imposes tariffs lower than its MFN rate on another country's products.

- The bound tariff rate is specific to individual products and represents the maximum level of import duty that can be levied on a product imported by that member.

- An 'applied tariff' is the duty that is actually charged on imports on the mostfavoured nation (MFN) basis.

- Escalated tariff structure refers to the system wherein the nominal tariff rates on imports of manufactured goods are higher than the nominal tariff rates on intermediate inputs and raw materials, i.e.the tariff on a product increases as that product moves through the value-added chain.

- A prohibitive tariff is one that is set so high that no imports will enter.

- Trigger-price mechanisms are quick responses of affected importing countries upon confirmation of trade distortion to offset the distortion. E.g. Anti-dumping duties.

- Dumping occurs when manufacturers sell goods in a foreign country below the sales prices in their domestic market or below their full average cost of the product. It hurts domestic producers.

- Anti-dumping measures are additional import duties so as to offset the foreign firm's unfair price advantage.

- Countervailing duties are tariffs to offset the artificially low prices charged by exporters who enjoy export subsidies and tax concessions offered by the governments in their home country.

- Tariff barriers create obstacles to trade, reduce the prospect of market access, make imported goods more expensive, increase consumption of domestic goods, protect domestic industries and increase government revenues

- Non-tariff measures (NTMs) are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded or prices or both

➢ Technical Barriers to Trade (TBT) are 'Standards and Technical Regulations' that define the specific characteristics that a product should have, such as its size, shape, design, labelling / marking / packaging, functionality or performance and production methods, excluding measures covered by the SPS Agreement.

➢ Non-technical measures relate to trade requirements; for example; shipping requirements, custom formalities, trade rules, taxation policies, etc.

➢ SPS measures are applied to protect human, animal or plant life from risks arising from additives, pests, contaminants, toxins or disease-causing organisms and to protect biodiversity

➢ An import quota is a direct restriction which specifies that only a certain physical amount of the good will be allowed into the country during a given time period, usually one year.

➢ The objective of financial measures is to increase import costs by regulating the access to and cost of foreign exchange for imports and to define the terms of payment.

➢ Government procurement policies may interfere with trade if they involve mandates that the whole of a specified percentage of purchases should be from domestic firms rather than from foreign firms

➢ In the case of investments, local content requirements that mandate that a specified fraction of a final good be produced domestically may act as a trade barrier.

➢ Rules of origin are the criteria needed by governments of importing countries to determine the national source of a product.

➢ Safeguard measures are initiated by countries to temporarily restrict imports of a product its domestic industry is injured by the surge in imports while an embargo is a total ban imposed by government on import or export of some or all commodities to particular country or region for a specified or indefinite period.

➢ An export tax is a tax collected on exported goods and may be either specific or ad valorem. An export subsidy includes financial contribution to domestic producers in the form of grants, loans, equity infusions or some form of income or price support. Both distort trade.

➢ Voluntary Export Restraints (VERs) refer to a type of informal quota administered by an exporting country voluntarily restraining the quantity of goods that can be exported out of that country during a specified period of time. It is imposed based on negotiations to appease the importing country and to avoid the effects of possible trade restraints.

<div align="center">**UNIT 3: TRADE NEGOTIATIONS**</div>

1. INTRODUCTION

The recent years have seen intense bilateral and multilateral negotiations among different nations in the international arena. India, for example, has already become part of 19 such concluded agreements and is currently negotiating more than two dozens of such proposals. Major events in the year 2020, such as Britain's exit from the European Union, the new free trade agreement [which is a successor of the North American Free Trade Agreement (NAFTA)] concluded between Canada, Mexico, and United States, namely United States–Mexico–Canada Agreement (USMCA) and many other unpredictable developments in the trade front due to trade war between the US and China and the global pandemic, make trade negotiations a highly relevant area of study.

National governments are not the sole stakeholders in a trade negotiation. Many interest groups, lobbying groups, pressure groups and Non-Governmental Organizations (NGO) exert their influence on the process. As anyone can guess, the positions taken by each of the negotiating parties would represent their underlying agenda of interests. For example, in trade negotiations, when one of the parties seems to be bargaining for market access through reduction in tariffs, the other (s) may be clamouring on the issue of possible grant of protection to domestic industries.

Before we go into the discussion on multilateral trade negotiations and the related institutions, it is relevant to understand the nature of regional as well as free trade agreements which evolve through negotiations.

2. TAXONOMY OF REGIONAL TRADE AGREEMENTS (RTAS)

Regional Trade Agreements (RTAs) are defined as groupings of countries (not necessarily belonging to the same geographical region), which are formed with the objective of reducing barriers to trade between member countries. In other words, a regional trade agreement (RTA) is a treaty between two or more governments that define the rules of trade for all signatories. As of 1 February 2021, 339 RTAs were in force.

Trade negotiations result in different types of agreements which are shown in the chart below-
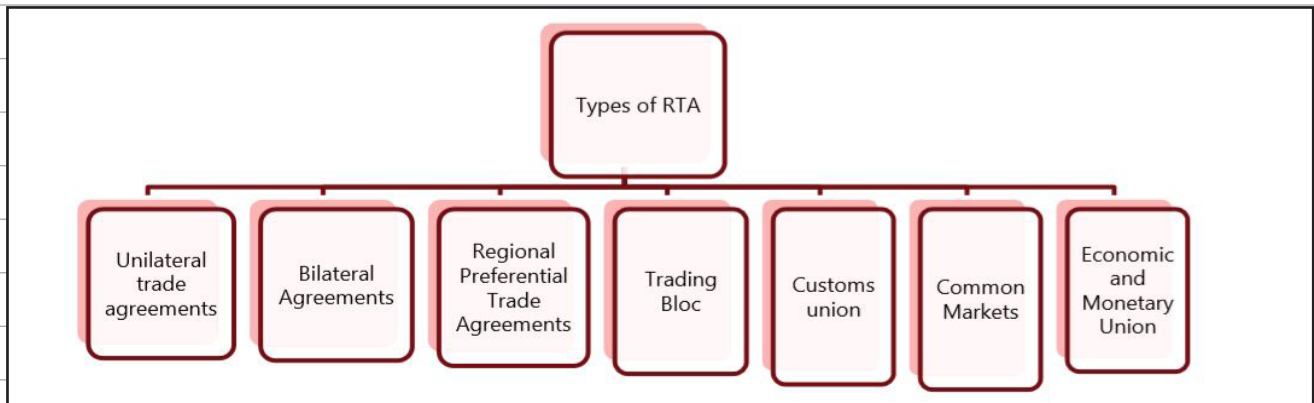
1. **Unilateral trade agreements** under which an importing country offers trade incentives in order to encourage the exporting country, to engage in international economic activities that will improve the exporting country's economy. E.g. Generalized System of Preferences.

2. **Bilateral Agreements** are agreements that set rules of trade between two countries, two blocs or a bloc and a country. These may be limited to certain goods and services or certain types of market entry barriers. E.g. EU-South Africa Free Trade Agreement; ASEAN–India Free Trade Area.

3. **Regional Preferential Trade Agreements** among a group of countries reduce trade barriers on a reciprocal and preferential basis for only the members of the group. E.g. Global System of Trade Preferences among Developing Countries (GSTP)

4. **Trading Bloc** has a group of countries that have a free trade agreement between themselves and may apply a common external tariff to other countries. Example: Arab League (AL), European Free Trade Association (EFTA)

5. **Free-trade area** is a group of countries that eliminate all tariff and quota barriers on trade with the objective of increasing exchange of goods with each other. The trade among the member states flows tariff free, but the member states maintain their own distinct external tariff with respect to imports from the rest of the world. In other words, the members retain independence in determining their tariffs with non-members. Example: The ASEAN–India Free Trade Area (AIFTA) is a free trade area among the ten member states of the Association of Southeast Asian Nations (ASEAN) and India. it came into force on 1 August 2005

6. **A customs union** is a group of countries that eliminate all tariffs on trade among themselves but maintain a common external tariff on trade with countries outside the union (thus, technically violating MFN). The common external tariff which distinguishes a customs union from a free trade area implies that, generally, the same tariff is charged wherever a member imports goods from outside the customs union. The EU is a Customs Union; its 27 member countries form a single territory for customs purposes. Other examples are Gulf Cooperation Council (GCC), Southern Common Market (MERCOSUR).

7. **Common Market:** A Common Market deepens a customs union by providing for the free flow of output and of factors of production (labour, capital and other productive resources) by reducing or eliminating internal tariffs on goods and by creating a common set of external tariffs. The member countries attempt to harmonize some institutional arrangements and commercial and financial laws and regulations among themselves. There are also common barriers against non-members (e.g., EU, ASEAN)

8. **Economic and Monetary Union:** For a common market, the free transit of goods and services through the borders increases the need for foreign exchange operations and results in higher financial and administrative expenses of firms operating within the region. The next stage in the integration sequence is formation of some form of monetary union. In an Economic and Monetary Union, the members share a common currency. Adoption of common currency also makes it necessary to have a strong convergence in macroeconomic policies. For example, the European Union countries implement and adopt a single currency.

There has been significant growth in international trade since the end of the Second World War, mostly due to the multilateral trade system which is both a political process and a set of political institutions. It is a political process because it is based on negotiations and bargaining among sovereign governments based on which they arrive at rules governing trade between or among themselves. The political institutions that facilitate trade negotiations, and support international trade cooperation by providing the rules of the game have been the former General Agreements on Tariffs and Trade (GATT) and the World Trade Organization (WTO).

3. THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

The General Agreement on Tariffs and Trade (GATT) covers international trade in goods. The workings of the GATT agreement are the responsibility of the Council for Trade in Goods (Goods Council) which is made up of representatives from all WTO member countries. The Goods Council has 10 committees dealing with specific subjects (such as agriculture, market access, subsidies, anti-dumping measures, and so on). Again, these committees consist of all member countries.

Also reporting to the Goods Council are a working party on state trading enterprises, and the Information Technology Agreement (ITA) Committee.

The GATT lost its relevance by the 1980s because

- it was obsolete to the fast-evolving contemporary complex world trade scenario characterized by emerging globalisation
- international investments had expanded substantially
- intellectual property rights and trade in services were not covered by GATT
- world merchandise trade increased by leaps and bounds and was beyond its scope.
- the ambiguities in the multilateral system could be heavily exploited
- efforts at liberalizing agricultural trade were not successful
- there were inadequacies in institutional structure and dispute settlement system
- it was not a treaty and therefore terms of GATT were binding only insofar as they are not incoherent with a nation's domestic rules.

4 THE URUGUAY ROUND AND THE ESTABLISHMENT OF WTO

The need for a formal international organization which is more powerful and comprehensive was felt by many countries by late 1980s.Having settled the most ambitious negotiating agenda that covered virtually every outstanding trade policy issue, the Uruguay Round brought about the biggest reform of the world's trading system. Members established 15 groups to work on limiting restrictions in the areas of tariffs, non-tariff barriers, tropical products, natural resource products, textiles and clothing, agriculture, safeguards against sudden 'surges' in imports, subsidies, countervailing duties, trade related intellectual property restrictions, trade related investment restrictions, services and four other areas dealing with GATT itself, such as, the GATT system, dispute settlement procedures and implementation of the NTB Codes of the Tokyo Round, especially on anti-dumping. The Round started in Punta del Este in Uruguay in September 1986 and was scheduled to be completed by

December 1990. However, due to many differences and especially due to heated controversies over agriculture, no consensus was arrived at. Finally, in December 1993, the Uruguay Round, the eighth and the most ambitious and largest ever round of multilateral trade negotiations in which 123 countries participated, was completed after seven years of elaborate negotiations. The agreement was signed by most countries on April 15, 1994, and took effect on July 1, 1995. It also marked the birth of the World Trade Organization (WTO) which is the single institutional framework encompassing the GATT, as modified by the Uruguay Round.

5. THE WORLD TRADE ORGANIZATION (WTO)

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to ensure that trade flows as smoothly, predictably, and freely as possible. The principal objective of the WTO is to facilitate the flow of international trade smoothly, freely, fairly, and predictably.

The WTO has six key objectives:
1. to set and enforce rules for international trade,
2. to provide a forum for negotiating and monitoring further trade liberalization,
3. to resolve trade disputes,
4. to increase the transparency of decision-making processes,
5. to cooperate with other major international economic institutions involved in global economic management, and
6. to help developing countries benefit fully from the global trading system.

The objectives of the WTO Agreements as acknowledged in the preamble of the Agreement creating the World Trade Organization, include "raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services. The WTO, whose primary purpose is to open trade for the benefit of all, does its functions by acting as a forum for trade negotiations among member governments, administering trade agreements, reviewing national trade policies, assisting developing countries in trade policy issues, through technical assistance and training programmes and cooperating with other international organizations.

The Structure of the WTO

The WTO activities are supported by a Secretariat located in Geneva, headed by a Director General. It has a three-tier system of decision making. The WTO's top-level decision-making body is the Ministerial Conference which can take decisions on all matters under any of the multilateral trade agreements. The Ministerial Conference meets at least once every two years. The next level is the General Council which meets several times a year at the Geneva headquarters. The General Council also meets as the Trade Policy Review Body and the Dispute Settlement Body. At the next level, the Goods Council, Services Council and Intellectual Property (TRIPS) Council report to the General Council. These councils are responsible for overseeing the implementation of the WTO agreements in their respective areas of specialisation. The WTO Secretariat maintains working relations with almost 200 international organisations in activities ranging from statistics, research, standard-setting, and technical assistance and training. Numerous specialized committees, working groups and working parties deal with the individual agreements and other areas such as the environment, development, membership applications and regional trade agreements.

The WTO accounting for about 95% of world trade currently has 164 members, of which 117 are developing countries or separate customs territories. Around 24 others are negotiating membership. The WTO's agreements have been ratified in all members' parliaments.

The Guiding Principles of World Trade Organization (WTO)

Right from its inception, the WTO has been driven by a number of fundamental principles which are the foundations of the multilateral trading system. Following are the major guiding principles:

Trade without discrimination

1. **Most-favoured-nation (MFN):** treating other people equally Under the WTO agreements, countries cannot normally discriminate between their trading partners. Grant someone a special favour (such as a lower customs duty rate for one of their products) and you have to do the same for all other WTO members.

    This principle is known as most-favoured-nation (MFN) treatment (see box). It is so important that it is the first article of the General Agreement

on Tariffs and Trade (GATT), which governs trade in goods. MFN is also a priority in the General Agreement on Trade in Services (GATS) (Article 2) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) (Article 4), although in each agreement the principle is handled slightly differently. Together, those three agreements cover all three main areas of trade handled by the WTO.

Some exceptions are allowed. For example, countries can set up a free trade agreement that applies only to goods traded within the group – discriminating against goods from outside. Or they can give developing countries special access to their markets. Or a country can raise barriers against products that are considered to be traded unfairly from specific countries. And in services, countries are allowed, in limited circumstances, to discriminate. But the agreements only permit these exceptions under strict conditions. In general, MFN means that every time a country lowers a trade barrier or opens up a market, it has to do so for the same goods or services from all its trading partners – whether rich or poor, weak or strong.

2. National treatment: Treating foreigners and locals equally Imported and locallyproduced goods should be treated equally – at least after the foreign goods have entered the market. The same should apply to foreign and domestic services, and to foreign and local trademarks, copyrights and patents. This principle of "national treatment" (giving others the same treatment as one's own nationals) is also found in all the three main WTO agreements (Article 3 of GATT, Article 17 of GATS and Article 3 of TRIPS), although once again the principle is handled slightly differently in each of these.

National treatment only applies once a product, service or item of intellectual property has entered the market. Therefore, charging customs duty on an import is not a violation of national treatment even if locally-produced products are not charged an equivalent tax. 3.5.3 Overview of the WTO agreements.

Freer trade: gradually, through negotiation
Lowering trade barriers is one of the most obvious means of encouraging trade. The barriers concerned include customs duties (or tariffs) and measures such as import bans or quotas that restrict quantities selectively.

From time to time other issues such as red tape and exchange rate policies have also been discussed.

The WTO agreements allow countries to introduce changes gradually, through "progressive liberalization". Developing countries are usually given longer to fulfil their obligations.

Predictability: through binding and transparency

Sometimes, promising not to raise a trade barrier can be as important as lowering one, because the promise gives businesses a clearer view of their future opportunities. With stability and predictability, investment is encouraged, jobs are created and consumers can fully enjoy the benefits of competition — choice and lower prices.

In the WTO, when countries agree to open their markets for goods or services, they "bind" their commitments. For goods, these bindings amount to ceilings on customs tariff rates. Sometimes countries tax imports at rates that are lower than the bound rates. Frequently this is the case in developing countries. In developed countries, the rates actually charged and the bound rates tend to be the same.

A country can change its bindings, but only after negotiating with its trading partners, which could mean compensating them for loss of trade. One of the achievements of the Uruguay Round of multilateral trade talks was to increase the amount of trade under binding commitments. In agriculture, 100% of products now have bound tariffs. The result of all this: is a substantially higher degree of market security for traders and investors.

The system tries to improve predictability and stability in other ways as well. One way is to discourage the use of quotas and other measures used to set limits on quantities of imports — administering quotas can lead to more red-tape and accusations of unfair play. Another is to make countries' trade rules as clear and public ("transparent") as possible. Many WTO agreements require governments to disclose their policies and practices publicly within the country or by notifying the WTO. The regular surveillance of national trade policies through the Trade Policy Review Mechanism provides a further means of encouraging transparency both domestically and at the multilateral level.

Promoting fair competition

The WTO is sometimes described as a "free trade" institution, but that is not entirely accurate. The system does allow tariffs and, in limited circumstances, other forms of protection. More accurately, it is a system of rules dedicated to open, fair, and undistorted competition.

The rules on non-discrimination — MFN and national treatment — are designed to secure fair conditions of trade. So too are those on dumping (exporting at below cost to gain market share) and subsidies. The issues are complex, and the rules try to establish what is fair or unfair, and how governments can respond, in particular by charging additional import duties calculated to compensate for damage caused by unfair trade.

Many of the other WTO agreements aim to support fair competition: in agriculture, intellectual property, services, for example. The agreement on government procurement (a "plurilateral" agreement because it is signed by only a few WTO members) extends competition rules to purchases by thousands of government entities in many countries. And so on.

Encouraging development and economic reform

The WTO system contributes to development. On the other hand, developing countries need flexibility in the time they take to implement the system's agreements. And the agreements themselves inherit the earlier provisions of GATT that allow for special assistance and trade concessions for developing countries.

Over three-quarters of WTO members are developing countries and countries in transition to market economies. During the seven and a half years of the Uruguay Round, over 60 of these countries implemented trade liberalization programmes autonomously. At the same time, developing countries and transition economies were much more active and influential in the Uruguay Round negotiations than in any previous round, and they are even more so in the current Doha Development Agenda.

At the end of the Uruguay Round, developing countries were prepared to take on most of the obligations that are required of developed countries. But the agreements did give them transition periods to adjust to the more unfamiliar and, perhaps, difficult WTO provisions — particularly so for the poorest, "least-developed" countries. A ministerial decision adopted at the end of the round says better-off countries should accelerate implementing market access commitments on goods exported by the least-developed countries, and it seeks increased technical assistance for them. More recently, developed countries have started to allow dutyfree and quota-free imports for almost all products from least-developed countries. On all of this, the WTO and its members are still going through a learning process. The current Doha Development Agenda includes developing countries' concerns about the difficulties they face in implementing the Uruguay Round agreements.

WTO Agreements

The WTO agreements cover goods, services and intellectual property and the permitted exceptions. These agreements are often called the WTO's trade rules, and the WTO is often described as "rules-based", a system based on rules. (The rules are actually agreements that the governments negotiated).

Following are the important agreements under WTO. Since a thorough discussion on the features of each agreement is beyond the scope of this unit, only the major provisions are given below:

1. Agreement on Agriculture aims at strengthening GATT disciplines and improving agricultural trade. It includes specific and binding commitments made by WTO Member governments in the three areas of market access, domestic support and export subsidies.

2. Agreement on the Application of Sanitary and Phytosanitary (SPS) Measures establishes multilateral frameworks for the planning, adoption and implementation of sanitary and phytosanitary measures to prevent such measures from being used for arbitrary or unjustifiable discrimination or for camouflaged restraint on international trade and to minimize their adverse effects on trade.

3. Agreement on Textiles and Clothing replaced the Multi-Fibre Arrangement (MFA) which was prevalent since 1974 and entailed import protection policies. ATC provides that textile trade should be deregulated by gradually integrating it into GATT disciplines over a 10-year transition period.

4. Agreement on Technical Barriers to Trade (TBT) aims to prevent standards and conformity assessment systems from becoming unnecessary trade barriers by securing their transparency and harmonization with international standards. Often excessive standards or misuse of standards in respect of manufactured goods, and safety/environment regulations act as trade barriers.

5. Agreement on Trade-Related Investment Measures (TRIMs) expands disciplines governing investment measures in relation to cross-border investments. It stipulates that countries receiving foreign investments shall not impose investment measures such as requirements, conditions and restrictions inconsistent with the provisions of the principle of national treatment and general elimination of quantitative restrictions. For example: measures such as local content requirements and trade balancing requirements should not be applied on investing corporations.

6. Anti-Dumping Agreement seeks to tighten and codify disciplines for calculating dumping margins and conducting dumping investigations, etc. in order to prevent anti-dumping measures from being abused or misused to protect domestic industries.

7. Customs Valuation Agreement specifies rules for more consistent and reliable customs valuation and aims to harmonize customs valuation systems on an international basis by eliminating arbitrary valuation systems.

8. Agreement on Pre-shipment Inspection (PSI) intends to secure transparency of preshipment inspection wherein a company designated by the importing country conducts inspection of the quality, volume, price, tariff classification, customs valuation, etc. of merchandise in the

territory of the exporting country on behalf of the importing country's custom office and issues certificates. The agreement also provides for a mechanism for the solution of disputes between PSI agencies and exporters.

9. Agreement on Rules of Origin provides for the harmonization of rules of origin for application to all non-preferential commercial policy instruments. It also provides for dispute settlement procedures and creates the rules of origin committee.

10. Agreement on Import Licensing Procedures relates to simplification of administrative procedures and to ensure their fair operation so that import licensing procedures of different countries may not act as trade barriers.

11. Agreement on Subsidies and Countervailing Measures aims to clarify definitions of subsidies, strengthen disciplines by subsidy type and to strengthen and clarify procedures for adopting countervailing tariffs.

12. Agreement on Safeguards clarify disciplines for requirements and procedures for imposing safeguards and related measures which are emergency measures to restrict imports in the event of a sudden surge in imports.

13. General Agreement on Trade in Services (GATS): This agreement provides the general obligations regarding trade in services, such as most- favoured-nation treatment and transparency. In addition, it enumerates service sectors and stipulates that in the service sectors for which it has made commitments, a member country cannot maintain or introduce market access restriction measures and discriminatory measures that are severer than those that were committed during the negotiations.

14. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS): This agreement stipulates most-favoured-nation treatment and national treatment for intellectual properties, such as copyright,

trademarks, geographical indications, industrial designs, patents, IC layout designs and undisclosed information. In addition, it requires member countries to maintain high levels of intellectual property protection and to administer a system of enforcement of such rights. It also stipulates procedures for the settlement of disputes related to the agreement.

15. Trade Policy Review Mechanism (TPRM) provides the procedures for the trade policy review mechanism to conduct periodical reviews of members' trade policies and practices conducted by the Trade Policy Review Body (TPRB).

16. Plurilateral Trade Agreements: Multilateral negotiations are those negotiations involving the entire WTO contracting parties. The Plurilateral trade agreements involve several countries with a common interest but do not involve all WTO countries. Not all the plurilateral agreements are negotiated within the WTO framework.

All the above-mentioned agreements entered into by the members are not static; they are renegotiated from time to time and new agreements evolve from negotiations. Example: Many agreements were negotiated under the Doha Development Agenda, launched by WTO trade ministers in Doha, Qatar, in November 2001.

6. THE DOHA ROUND

The Doha Round, formally the Doha Development Agenda, which is the ninth round since the Second World War was officially launched at the WTO's Fourth Ministerial Conference in Doha, Qatar, in November 2001. The round seeks to accomplish major modifications of the international trading system through lower trade barriers and revised trade rules. The negotiations include 20 areas of trade, including agriculture, services trade, market access for non-agricultural products (NAMA), trade in services, trade facilitation, environment, geographical indications and certain intellectual property issues. The most controversial topic in the Doha Agenda was agriculture trade.

7. G 20 ECONOMIES: FACILITATING TRADE

While some trade-restrictive measures have been lifted by G20 countries, the report indicates that the trend has been going in the wrong direction. Export restrictions contribute to shortages, price volatility, and uncertainty. G20 economies must build on their collective pledges from the 12th Ministerial Conference and demonstrate leadership to keep markets open and predictable, so that food and fertilizer in particular can flow to where they are needed," said WTO Director-General Ngozi Okonjo-Iweala, who will be attending the G20 Leaders' Summit in Bali, Indonesia, on 15-16 November.

The report indicates that supply chains on the whole have thus far proved to be resilient, despite the war in Ukraine, the continuing impacts of the COVID-19 pandemic, the highest inflation many countries have experienced in decades, and the impacts of monetary tightening by central banks seeking to limit price increases. That said, specific industries and regions have been differently impacted.

Overall, the pace of implementation of new export restrictions by WTO members has increased since 2020, first in the context of the pandemic and subsequently with the war in Ukraine and the food crisis. Some of these export restrictions have been gradually lifted, but several still remain in place.

As of mid-October 2022, WTO members still had in place 52 export restrictions on food, feed and fertilizers, in addition to 27 export restrictions on products essential to combat COVID-19. Of these, 44% of the export restrictions on food, feed and fertilizers, and 63% of the pandemic-related export restrictions, were maintained by G20 economies.

During the review period, G20 economies introduced 66 new trade-facilitating measures (covering trade worth USD 451.8 billion) and 47 trade-restrictive measures on goods (with a trade coverage of USD 160.1 billion). These measures were not related to the pandemic.

At the same time, the accumulated stockpile of G20 import restrictions continued to grow. By mid-October, 11.6% of G20 imports were affected by trade-restricting measures implemented since 2009 and still in force.

Initiations of trade remedy investigations by G20 economies declined sharply during the review period (17 initiations), after a peak in 2020 that was the highest since the beginning of the trade monitoring exercise in 2009. Anti-dumping measures continued to be the most frequent trade remedy action in terms of initiations and terminations.

Similarly, the implementation of new COVID-19-related trade measures by G20 economies decelerated over the past five months, with four new such measures recorded on goods and one on services. The number of new COVID-19-related support measures to mitigate the social and economic impacts of the pandemic also fell sharply over the past five months.

Since the beginning of the pandemic, 201 COVID-19 trade and trade-related measures in goods were implemented by G20 economies. Most (61%) were trade facilitating, while the rest (39%) could be considered trade restrictive.

G20 economies also continued to phase out pandemic-related import and export measures. By mid-October 2022, 77% of export restrictions had been repealed, leaving 17 restrictions in place. Although the number of the pandemic-related trade restrictions in place decreased, their trade coverage remained significant, at USD 122.0 billion.

The WTO trade monitoring reports have been prepared by the WTO Secretariat since 2009. G20 members are: Argentina; Australia; Brazil; Canada; China; the European Union; France; Germany; India; Indonesia; Italy; Japan; the Republic of Korea; Mexico; the Russian Federation; Saudi Arabia; South Africa; Türkiye; the United Kingdom; and the United States.

MODULE MULTIPLE CHOICE QUESTIONS

1. Which of the following culminated in the establishment of the World Trade Organization?
    (a)   The Doha Round   (b)   The Tokyo Round
    (c)   The Uruguay Round   (d)   The Kennedy Round

2. Choose the correct statement
    (a)   The GATT was meant to prevent exploitation of poor countries by richer countries
    (b)   The GATT dealt with trade in goods only, while, the WTO covers services as well as intellectual property.
    (c)   All members of the World Trade Organization are required to avoid tariffs of all types
    (d)   All the above

3. The 'National treatment' principle stands for
    (a)   the procedures within the WTO for resolving disagreements about trade policy among countries
    (b)   the principle that imported products are to be treated no worse in the domestic market than the local ones
    (c)   exported products are to be treated no worse in the domestic market than the local ones
    (d)   imported products should have the same tariff, no matter where they are imported from

4. 'Bound tariff' refers to
    (a)   clubbing of tariffs of different commodities into one common measure
    (b)   the lower limit of the tariff below which a nation cannot be taxing its imports
    (c)   the upper limit on the tariff that a country can levy on a particular good, according to its commitments under the GATT and WTO.
    (d)   the limit within which the country's export duty should fall so that there are cheaper exports

5. The essence of 'MFN principle' is

    (a) equality of treatment of all member countries of WTO in respect of matters related to trade

    (b) favour one, country, you need to favour all in the same manner

    (c) every WTO member will treat all its trading partners equally without any prejudice and discrimination

    (d) all the above

6. The World Trade Organization (WTO)

    (a) has now been replaced by the GATT

    (b) has an inbuilt mechanism to settle disputes among members

    (c) was established to ensure free and fair trade internationally.

    (d) (b) and c) above

7. The Agreement on Agriculture includes explicit and binding commitments made by WTO Member governments

    (a) on increasing agricultural productivity and rural development

    (b) market access and agricultural credit support

    (c) market access, domestic support and export subsidies

    (d) market access, import subsidies and export subsidies

8. The Agreement on Textiles and Clothing

    (a) provides that textile trade should be deregulated gradually and the tariffs should be increased

    (b) replaced the Multi-Fiber Arrangement (MFA) which was prevalent since 1974

    (c) granted rights of textile exporting countries to increase tariffs to protect their domestic textile industries

    (d) stipulated that tariffs in all countries should be the same

9. The Agreement on Trade-Related Aspects of Intellectual Property Rights

    (a) stipulates to administer a system of enforcement of intellectual property rights.

    (b) provides for most-favoured-nation treatment and national treatment for intellectual properties

    (c) mandates to maintain high levels of intellectual property protection by all members

    (d) all the above

10. The most controversial topic in the yet to conclude Doha Agenda is

    (a) trade in manufactured goods

    (b) trade in intellectual property rights-based goods

    (c) trade in agricultural goods

    (d) market access to goods from developed countries

11. The WTO commitments

    (a) affect developed countries adversely because they have comparatively less agricultural goods

    (b) affect developing countries more because they need to make radical adjustments

    (c) affect both developed and developing countries equally

    (d) affect none as they increase world trade and ensure prosperity to all

ANSWERS:

1	(c)	2	(b)	3	(b)	4	(c)	5	(d)	6	(d)
7	(c)	8	(b)	9	(d)	10	(c)	11	(b)		

SUMMARY

➤ International trade negotiations, especially the ones aimed at formulation of international trade rules, are complex interactive processes engaged in by countries having competing objectives.

➤ Regional Trade Agreements (RTAs) are defined as groupings of countries (not necessarily belonging to the same geographical region) which are formed with the objective of reducing barriers to trade between member countries.

➤ Trade negotiations result in different types of agreements, namely: unilateral trade agreements, bilateral agreements, regional preferential trade agreements, trading bloc, free-trade area, customs union, common market and economic and monetary union.

➤ The General Agreement on Tariffs and Trade (GATT) provided the rules for most of the world trade for 47 years, from 1948 to 1994.

➤ Eight multilateral negotiations known as "trade rounds "held under the auspices GATT resulted in substantial international trade liberalization.

➤ The eighth of the Uruguay Round of 1986-94, was the last and most consequential of all rounds and culminated in the birth of WTO and a new set of agreements replacing the General Agreement on Tariffs and Trade (GATT).

➤ The principal objective of the WTO is to facilitate the flow of international trade smoothly, freely, fairly and predictably.

➤ The WTO does its functions by acting as a forum for trade negotiations among member governments, administering trade agreements, reviewing national trade policies, cooperating with other international organizations and assisting developing countries in trade policy issues through technical assistance and training programmes.

➢ The WTO activities are supported by the Secretariat located in Geneva, headed by a Director General. It has a three-tier system of decision making. The top-level decisionmaking body is the Ministerial Conference, followed by councils namely, the General Council and the Goods Council, Services Council and Intellectual Property (TRIPS) Council.

➢ The WTO, accounting for about 95% of world trade, currently has 164 members, of which 117 are developing countries or separate customs territories.

➢ The major guiding principles of the WTO are trade without discrimination, mostfavoured-nation treatment (MFN), the national treatment principle (NTP), free trade, predictability, general prohibition of quantitative restrictions, greater competitiveness, tariffs as legitimate measures for protection, transparency in decision making, progressive liberalization, market access and a transparent, effective and verifiable dispute settlement mechanism.

➢ The important agreements under WTO are on agriculture, (SPS) measures, textiles and clothing, technical barriers to trade (TBT), trade-related investment measures (TRIMs), anti-dumping, customs valuation, pre-shipment inspection (PSI) , rules of origin, import licensing procedures, subsidies and countervailing measures , safeguards, trade in services (GATS), intellectual property rights (TRIPS), settlement of disputes (DSU), trade policy review mechanism (TPRM) and plurilateral trade agreements on trade in civil aircraft and government procurement.

➢ The Doha Round, formally the Doha Development Agenda, which is the ninth round since the Second World War was officially launched at the WTO's Fourth Ministerial Conference in Doha, Qatar, in November 2001.

➢ The major issues related to the WTO are in respect of slow progress of multilateral negotiations, uncertainties resulting from regional trade agreements, inadequate or negligible trade liberalisation, and those which are specific to the developing countries, namely, protectionism and lack of willingness among developed countries to provide market access, difficulties that they face in implementing the present agreements, apparent north-south divide, exceptionally high tariffs, tariff escalation, erosion of preferences and difficulties with regards to adjustments.

UNIT 4: EXCHANGE RATE AND ITS ECONOMIC EFFECTS

1. INTRODUCTION

Each day we get fascinating news about the currency which fuel our curiosity, such as Rupee gains 12 paise against US dollar, Dollar Spot/Forward Rates plummet, Rupee down, Euro holds steady, Pound strengthens etc. Ever wondered what this jargon mean? We shall try to understand a few fundamentals related to currency transactions in this unit.

In chapter 3, we examined the demand for and supply of domestic currency. It is not domestic currency alone that we need. Households, businesses and governments in India, for example, buy different types of goods and services produced in other countries. Similarly, residents of the rest of the world buy goods and services from residents in India. Foreign investors, businesses, and governments invest in our country, just as our nationals invest in other countries. In the same way, lending, and borrowing also take place internationally. These and similar other transactions give rise to an international dimension of money, which involves exchange of one currency for another. Obviously, this entails market transactions involving the determination of price of one currency in terms of another.

2. THE EXCHANGE RATE

A foreign currency transaction is a transaction that is denominated in or requires settlement in a foreign currency, including transactions arising when an enterprise either:

    (a)   buys or sells goods or services whose price is denominated in a foreign currency.

    (b)   borrows or lends funds when the amounts payable or receivable are denominated in a foreign currency.

    (c)   becomes a party to an unperformed forward exchange contract; or

    (d)   otherwise acquires or disposes of assets, or incurs or settles liabilities, denominated in a foreign currency.

3. THE EXCHANGE RATE REGIMES

Exchange rates are determined by demand and supply. But governments can influence those exchange rates in various ways. The extent and nature of government involvement in currency markets define alternative systems of exchange rates.

In this section, we will examine somecommon systems and explore some of their macroeconomic implications.

There are three broad categories of exchange rate systems. In one system, exchange rates are set purely by private market forces with no government involvement. Values change constantly as the demand for and supply of currencies fluctuate. In another system, currency values are allowed to change, but governments participate in currency markets in an effort to influence those values. Finally, governments may seek to fix the values of their currencies, either through participation in the market or through regulatory policy.

An exchange rate regime is the system by which a country manages its currency with respect to foreign currencies. It refers to the method by which the value of the domestic currency in terms of foreign currencies is determined. There are two major types of exchange rate regimes at the extreme ends; namely:

(i)   floating exchange rate regime (also called a flexible exchange rate), and

(ii)   fixed exchange rate regime

In a free-floating exchange rate system, governments and central banks do not participate in the market for foreign exchange. The relationship between governments and central banks on the one hand and currency markets on the other is much the same as the typical relationship between these institutions and stock markets. Governments may regulate stock markets to prevent fraud, but stock values themselves are left to float in the market.

A free-floating system has the advantage of being self-regulating. There is no need for government intervention if the exchange rate is left to the market. Market forces also restrain large swings in demand or supply. Suppose, for example, that a dramatic shift in world preferences led to a sharply increased demand for goods and services produced in Canada.

This would increase the demand for Canadian dollars, raise Canada's exchange rate, and make Canadian goods and services more expensive for foreigners to buy. Some of the impact of the swing in foreign demand would thus be absorbed in a rising exchange rate. In effect, a freefloating exchange rate acts as a buffer to insulate an economy from the impact of international events.

The primary difficulty with free-floating exchange rates lies in their unpredictability. Contracts between buyers and sellers in different countries must not only reckon with possible changes in prices and other factors during the lives of those contracts, they must also consider the possibility of exchange rate changes. An agreement by an Indian distributor to purchase a certain quantity of US goods each year, for example, will be affected by the possibility that the exchange rate between the Indian rupee and the U.S. dollar will change while the contract is in effect. Fluctuating exchange rates make international transactions riskier and thus increase the cost of doing business with other countries.

Managed Float Systems

Governments and central banks often seek to increase or decrease their exchange rates by buying or selling their own currencies. Exchange rates are still free to float, but governments try to influence their values. Government or central bank participation in a floating exchange rate system is called a managed float.

Countries that have a floating exchange rate system intervene from time to time in the currency market in an effort to raise or lower the price of their own currency. Typically, the purpose of such intervention is to prevent sudden large swings in the value of a nation's currency. Such intervention is likely to have only a small impact, if any, on exchange rates.

Still, governments or central banks can sometimes influence their exchange rates. Suppose the price of a country's currency is rising very rapidly. The country's government or central bank might seek to hold off further increases in order to prevent a major reduction in net exports. An announcement that a further increase in its exchange rate is unacceptable, followed by sales of that country's currency by the central bank in order to bring its exchange rate down, can sometimes convince other participants in the currency market that the exchange rate will not rise further. That change in expectations could reduce demand for and increase the supply of the currency, thus achieving the goal of holding the exchange rate down.

Fixed Exchange Rates

In a fixed exchange rate system, the exchange rate between two currencies is set by government policy. There are several mechanisms through which fixed exchange rates may

be maintained. Whatever the system for maintaining these rates, however, all fixed exchange rate systems share some important features.

In an open economy, the main advantages of a fixed rate regime are:

(i) A fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs that can impede international flow of trade and investments.

International trade and investment are less risky under fixed rate regime as profits are not affected by the exchange rate fluctuations.

(ii) A fixed exchange rate can thus, greatly enhance international trade and investment.

(iii) A reduction in speculation on exchange rate movements if everyone believes that exchange rates will not change.

(iv) A fixed exchange rate system imposes discipline on a country's monetary authority and therefore is more likely to generate lower levels of inflation.

(v) The government can encourage greater trade and investment as stability encourages investment.

(vi) Exchange rate peg can also enhance the credibility of the country's monetary -policy.

(vii) However, in the fixed or managed floating exchange rate regimes (where the market forces are allowed to determine the exchange rate within a band), the central bank is required to stand ready to intervene in the foreign exchange market and, also to maintain an adequate amount of foreign exchange reserves for this purpose.

Basically, the free floating or flexible exchange rate regime is argued to be efficient and highly transparent as the exchange rate is free to fluctuate in response to the supply of and demand for foreign exchange in the market and clears the imbalances in the foreign exchange market without any control of the central bank or the monetary authority. A floating exchange rate has many advantages:

(i) A floating exchange rate has the greatest advantage of allowing a Central bank and/or government to pursue its own independent monetary policy.

(ii) Floating exchange rate regime allows exchange rate to be used as a policy tool: for example, policy-makers can adjust the nominal exchange rate to influence the competitiveness of the tradable goods sector.

(iii) As there is no obligation or necessity to intervene in the currency markets, the central bank is not required to maintain a huge foreign exchange reserves.

However, the greatest disadvantage of a flexible exchange rate regime is that volatile exchange rates generate a lot of uncertainties in relation to international transactions and add a risk premium to the costs of goods and assets traded across borders. In short, a fixed rate brings in more currency and monetary stability and credibility; but it lacks flexibility. On the contrary, a floating rate has greater policy flexibility; but less stability.

4. NOMINAL VERSUS REAL EXCHANGE RATES

We have been discussing so far about nominal exchange rate which refers to the rate at which a person can trade the currency of one country for the currency of another country. For any country, there are many nominal exchange rates because its currency can be used to purchase many foreign currencies. While studying exchange rate changes, economists make use of indexes that average these many exchange rates. An exchange rate index turns these many exchange rates into a single measure of the international value of currency.

Nominal Exchange Rates can be used to find the domestic price of foreign goods. However, trade flows are affected not by nominal exchange rates, but instead, by real exchange rates. The person or firm buying another currency is interested in what can be bought with it.

The real exchange rate is the rate at which a person can trade the goods and services of one country for the goods and services of another. It describes 'how many' of a good or service in one country can be traded for 'one' of that good or service in a foreign country. A country's real exchange rate is a key determinant of its net exports of goods and services.

For calculating real exchange rate, in the case of trade in a single good, we must first use the nominal exchange rate to convert the prices into a common currency. The real exchange rate (RER) between two currencies is the product of the nominal exchange rate and the ratio of prices between the two countries. It is calculated as:

$$\text{Real exchange Rate} = \frac{(\text{Nominal exchange Rate}) \times \text{Domestic price}}{\text{Foreign price}}$$

Or

$$\text{Real exchange rate = Nominal exchange rate X } \frac{\text{Domestic Price}}{\text{Foreign price}}$$

Thus, real exchange rate depends on the nominal exchange rate and the prices of the good in two countries measured in the local currencies.

When studying the economy as a whole, we use price indices which measure the price of a basket of goods and services. Real exchange rate will then be:

$$\text{Real exchange rate = Nominal exchange rate X } \frac{\text{Domestic Price Index}}{\text{Foreign price Index}}$$

Another exchange rate concept, the Real Effective Exchange Rate (REER) is the nominal effective exchange rate (a measure of the value of a domestic currency against a weighted average of various foreign currencies) divided by a price deflator or index of costs. An increase in REER implies that exports become more expensive and imports become cheaper; therefore, an increase in REER indicates a loss in trade competitiveness.

5. THE FOREIGN EXCHANGE MARKET

Forex market participants mainly are commercial banks executing orders from exporters, importers, investment institutions, insurance and retirement funds, hedgers, and private investors. Commercial banks also perform trading operations in their own interests and at their own expense. Daily turnover of the largest banks often exceeds several billions of U.S.
Dollars and many make their main profit by speculative operations with currency.

Brokerage houses are also playing an important role as contractors between large numbers of banks, funds, commission houses, dealing centers, etc. Commercial Banks and Brokerage Houses do not only execute currency exchange operations at prices set by other active players but come out with their own prices as well, actively influencing the price formation process and the market life. That is why they are called market makers.

In contrast to the above, passive players cannot set their own quotations and make trades at quotations offered by active market players. Passive market players

normally pursue the following aims: payment of export-import contracts, foreign industrial investments, the opening of branches abroad or the creation of joint ventures, tourism, speculation on rate difference, hedging of currency risks (insurance against losses in case of unfavorable price changes), etc.

In the foreign exchange market, there are two types of transactions:

(i)   current transactions which are carried out in the spot market and the exchange involves immediate delivery, and

(ii) future transactions wherein contracts are agreed upon to buy or sell currencies for future delivery which are carried out in forward and/or futures markets

Exchange rates prevailing for spot trading (for which settlement by and large takes two days) are called spot exchange rates. The exchange rates quoted in foreign exchange transactions that specify a future date are called forward exchange rates. The currency forward contracts are quoted just like spot rate; however, the actual delivery of currencies takes place at the specified time in future. When a party agrees to sell euro for dollars on a future date at a forward rate agreed upon, he has 'sold euros forward' and 'bought dollars forward'. A forward premium is said to occur when the forward exchange rate is more than a spot exchange rates.

On the contrary, if the forward trade is quoted at a lower rate than the spot rate, then there is a forward discount. Currency futures, though conceptually similar to currency forward and perform the same function, they are distinct in their nature and details concerning settlement and delivery.

While a foreign exchange transaction can involve any two currencies, most transactions involve exchanges of foreign currencies for the U.S. dollars even when it is not the national currency of either the importer or the exporter. On account of its critical role in the forex markets, the dollar is often called a 'vehicle currency'.

6.   DETERMINATION OF NOMINAL EXCHANGE RATE

As you already know, the key framework for analysing prices is the operation of forces of supply and demand in markets. Usually, the supply of and demand for foreign exchange in the domestic foreign exchange market determine the external value of the domestic currency, or in other words, a country's exchange rate.

Individuals, institutions and governments participate in the foreign exchange market for a number of reasons. On the demand side, people desire foreign currency to:

- purchase goods and services from another country
- for unilateral transfers such as gifts, awards, grants, donations or endowments
- to make investment income payments abroad
- to purchase financial assets, stocks or bonds abroad
- to open a foreign bank account
- to acquire direct ownership of real capital, and
- for speculation and hedging activities related to risk-taking or risk-avoidance activity

The participants on the supply side operate for similar reasons. Thus, the supply of foreign currency to the home country results from purchases of home exports, unilateral transfers to home country, investment income payments, foreign direct investments and portfolio investments, placement of bank deposits and speculation.

We shall now look into how the foreign exchange markets work. Similar to any standard market, the exchange market also faces a downward-sloping demand curve and an upwardsloping supply curve.

Determination of Nominal Exchange Rate

The equilibrium rate of exchange is determined by the interaction of the supply and demand for a particular foreign currency. In figure 4.4.1, the demand curve (D$) and supply curve (S$) of dollars intersect to determine equilibrium exchange rate eeq with Qe as the equilibrium quantity of dollars exchanged.

7. CHANGES IN EXCHANGE RATES

Changes in exchange rates portray depreciation or appreciation of one currency. The terms, ₹ currency appreciation' and 'currency depreciation' describe the movements of the exchange rate. Currency appreciates when its value increases with respect

to the value of another currency or a basket of other currencies. On the contrary, currency depreciates when its value falls with respect to the value of another currency or a basket of other currencies. We shall try to understand this with the help of an example.

For example, the Rupee dollar exchange rate in the month of January is $1 = ₹ 70. and, we find that in the month of April it is $1 = ₹ 75. What does this indicate? In April, you will have to exchange a greater amount of Indian Rupees (₹75) to get the same 1 unit of US dollar. As such, the value of the Indian Rupee has gone down or Indian Rupee has depreciated in its value. Rupee depreciation here means that the rupee has become less valuable with respect to the U.S. dollar. Simultaneously, if you look at the value of dollar in terms of Rupees, you find that the value of the US dollar has increased in terms of the Indian Rupee. One dollar will now fetch ₹75 instead of ₹70 earlier. This is called appreciation of the US dollar. You might have observed that when one currency depreciates against another, the second currency must simultaneously appreciate against the first.

To put it more clearly:
- Home-currency depreciation (which is the same as foreign-currency appreciation) takes place when there is an increase in the home currency price of the foreign currency (or, alternatively, a decrease in the foreign currency price of the home currency).
  The home currency thus becomes relatively less valuable.

- Home-currency appreciation (or foreign-currency depreciation) takes place when there is a decrease in the home currency price of foreign currency (or alternatively, an increase in the foreign currency price of home currency). The home currency thus becomes relatively more valuable.

  Under a floating rate system, if for any reason, the demand curve for foreign currency shifts to the right representing increased demand for foreign currency, and supply curve remains unchanged, then the exchange value of foreign currency rises and the domestic currency depreciates in value. This is illustrated in figure.

Home-Currency Depreciation under Floating Exchange Rates

The market initially is in equilibrium at point E with equilibrium exchange rate e eq. An increase in domestic demand for the foreign currency, with supply of dollars remaining constant, is represented by a rightward shift of the demand curve to D1$. The equilibrium exchange rate rises to e1. This indicates that more units of domestic currency (here Indian Rupees) are required to buy one unit of foreign currency (here dollar) and that the domestic currency (the Rupee) has depreciated.

We shall now examine what happens when there is an increase in the supply of dollars in the Indian market. This is illustrated in figure

Home-Currency Appreciation under Floating Exchange Rates

An increase in the supply of foreign exchange shifts the supply curve to the right to S1 $ and as a consequence, the exchange rate declines to e1. It means, that lesser units of domestic currency (here Indian Rupees) are required to buy one unit of foreign currency(dollar), and that the domestic currency (the Rupee) has appreciated.

As we are aware, in an open economy, firms and households use exchange rates to translate foreign prices in terms of domestic currency. Exchange rates also permit

us to compare the prices of goods and services produced in different countries. Furthermore, import or export prices could be expressed in terms of the same currency in the trading contract. This is the reason why exchange rate movements can affect intentional trade flows.

8. DEVALUATION (REVALUATION) VS DEPRECIATION (APPRECIATION)

Devaluation is a deliberate downward adjustment in the value of a country's currency relative to another country's currency or group of currencies or standard. It is a monetary policy tool used by countries that have a fixed exchange rate or nearly fixed exchange rate regime and involves a discrete official reduction in the otherwise fixed par value of a currency. The monetary authority formally sets a new fixed rate with respect to a foreign reference currency or currency basket. In contrast, depreciation is a decrease in a currency's value (relative to other major currency benchmarks) due to market forces of demand and supply under a floating exchange rate and not due to any government or central bank policy actions.

Revaluation is the opposite of devaluation and the term refers to a discrete official increase of the otherwise fixed par value of a nation's currency. Appreciation, on the other hand, is an increase in a currency's value (relative to other major currencies) due to market forces of demand and supply under a floating exchange rate and not due to any government or central bank policy interventions.

9. IMPACTS OF EXCHANGE RATE FLUCTUATIONS ON DOMESTIC ECONOMY

The fact that among the macroeconomic variables, exchange rates are perhaps the most closely monitored, analysed and manipulated economic measure, highlights the overwhelming importance of exchange rates in an economy. The unpredictability of the markets caused by exchange rate fluctuations can profoundly determine a country's economic performance. Knowledge about the possible effects of exchange rate fluctuations enables us to have an understanding of the appropriateness of exchange rate policy, especially in developing countries. In the discussion that follows, we shall examine the impact of exchange rate fluctuations on the real economy.

The developments in the foreign exchange markets affect the domestic economy both directly and indirectly. The direct impact of fluctuations in rates is initially felt by economic agents who are directly involved in international trade or international finance.

(i) Fluctuations in the exchange rate have a significant role in determining the nature and extent of a country's trade.

(ii) Fluctuations in the exchange rate affect the economy by changing the relative prices of domestically-produced and foreign-produced goods and services. All else equal (or other things remaining the same), an appreciation of a country's currency raises the relative price of its exports and lowers the relative price of its imports. Conversely, depreciation lowers the relative price of a country's exports and raises the relative price of its imports. When a country's currency depreciates, foreigners find that its exports are cheaper and domestic residents find that imports from abroad are more expensive.

An appreciation has opposite effects i.e foreigners pay more for the country's products and domestic consumers pay less for foreign products. For example; assume that there is devaluation or depreciation of Indian Rupee from $1=₹ 65/ to $1=₹ 70/. A foreigner who spends ten dollars on buying Indian goods will, post devaluation, get goods worth ₹ 700/ instead of ₹ 650/ prior to depreciation. An importer has to pay for his purchases in foreign currency, and, therefore, a resident of India, who wants to import goods worth $1 will have to pay ₹ 70/ instead of ₹ 65/ prior to depreciation. Importers will be affected most as they will have to pay more rupees on importing products. On the contrary, exporters will be benefitted as goods exported abroad will fetch dollars which can now be converted to more rupees.

(iii) Exchange rate changes affect economic activity in the domestic economy. A depreciation of domestic currency primarily increases the price of foreign goods relative to goods produced in the home country and diverts spending from foreign goods to domestic goods. Increased demand, both for domestic import-competing goods and for exports, encourages economic activity and creates output expansion.

Overall, the outcome of exchange rate depreciation is an expansionary impact on the economy at an aggregate level. The positive effect of currency depreciation, however, largely depends on whether the switching of demand has taken place in the right direction and in the right amount, as well as on the capacity of the home economy to meet that increased demand by supplying more goods.

(iv) For an economy where exports are significantly high, a depreciated currency would mean a lot of gain. In addition, if exports originate from labour-intensive industries, increased export prices will have positive effect on employment and potentially on wages.

(v) Depreciation is also likely to add to consumer price inflation in the short run, directly through its effect on prices of imported consumer goods and also due to increased demand for domestic goods. The impact will be greater if the composition of domestic consumption baskets consists more of imported goods. Indirectly, cost push inflation may result through possible escalation in the cost of imported inputs. In such an inflationary situation, the central bank of the country will have no incentive to cut policy rates as this is likely to increase the burden of all types of borrowers including businesses.

(vi) The fiscal health of a country whose currency depreciates is likely to be affected with rising export earnings and import payments and consequent impact on current account balance. A widening current account deficit is a danger signal as far as growth prospects of the overall economy is concerned. If export earnings rise faster than the imports spending then current account balance will improve.

(vii) Companies that have borrowed in foreign exchange through external commercial borrowings (ECBs) but have been careless and did not sufficiently hedge these loans against foreign exchange risks, would also be negatively impacted as they would require more domestic currency to repay their loans. A depreciated domestic currency would also increase their debt burden and lower their profits and impact their balance sheets adversely. These would signal investors who will be discouraged from investing in such companies.

(viii) Countries with foreign currency denominated government debts, currency depreciation will increase the interest burden and cause strain to the exchequer for repaying and servicing foreign debt. Fortunately, India's has small proportion of public debt in foreign currency.

(ix) Exchange rate fluctuations make financial forecasting more difficult for firms and larger amounts will have to be earmarked for insuring against exchange rate risks through hedging.

(x) With growth of investments across international boundaries, exchange rates have assumed special significance. Investors who have purchased a foreign asset, or the corporation which floats a foreign debt, will find themselves facing foreign exchange risk. Exchange rate movements have become the single most important factor affecting the value of investments at international level. They are critical to business volumes, profit forecasts, investment plans and investment outcomes. Depreciating currency hits investor sentiments and has radical impact on patterns of international capital flows.

(xi) Foreign investors are likely to be indecisive or highly cautious before investing in a country that has high exchange rate volatility. Foreign capital inflows are characteristically vulnerable when local currency weakens. Therefore, foreign portfolio investment flows into debt and equity as well as foreign direct investment flows are likely to shrink. This shoots up capital account deficits affecting the country's fiscal health.

To reduce the fiscal deficit at the end of 2022, Russia and India agreed to switch to trade settlements in their national currencies. Over the past year, trade turnover between Moscow and New Delhi has grown significantly and both intend to increase these volumes during 2023. Meanwhile, Russian exports to India significantly exceed Indian imports from this country, when the Indian Rupee has significantly dipped against the US Dollar and the Russian Ruble. We look at how such variations can be overcome, setting in motion mechanisms for additional mutual settlement schemes with countries whose currencies may not be as strong as the Ruble, and look at the 2023 prospects for Russia-India bilateral trade.

In mid-November last year, India announced plans to double the volume of trade with Russia, noting that the transition to settlements in national currencies would only be an additional incentive for this. In late autumn, the Indian authorities allowed the use of Rupees in international trade settlements.

An appreciation of currency or a strong currency (or possibly an overvalued currency) makes the domestic currency more valuable and, therefore, can be exchanged for a larger amount of foreign currency. An appreciation will have the following consequences on real economy:

(i) An appreciation of currency raises the price of exports and, therefore, the quantity of exports would fall. Since imports become cheaper, we may expect an increase in the quantity of imports. Combining these two effects together, the domestic aggregate demand falls and, therefore, economic growth is likely to be negatively impacted.

(ii) The outcome of appreciation also depends on the stage of the business cycle as well. If appreciation sets in during the recessionary phase, the result would be a further fall in aggregate demand and higher levels of unemployment. If the economy is facing a boom, an appreciation of domestic currency would trim down inflationary pressures and soften the rate of growth of the economy.

(iii) An appreciation may cause reduction in the levels of inflation because imports are cheaper. Lower price of imported capital goods, components and raw materials lead to decrease in cost of production which reflects on decrease in prices. Additionally, decrease in aggregate demand tends to lower demand pull inflation. Living standards of people are likely to improve due to availability of cheaper consumer goods.

(iv) With increasing export prices, the competitiveness of domestic industry is adversely affected and therefore, firms have greater incentives to introduce technological innovations and capital-intensive production to cut costs to remain competitive.

(v) Increasing imports and declining exports are liable to cause larger deficits and worsen the current account. However, the impact of appreciation on current account depends upon the elasticity of demand for exports and imports. Relatively inelastic demand for imports and exports may lead to an improvement in the current account position. Higher the price elasticity of demand for exports, greater would be the fall in demand and higher will be the fall in the aggregate value of exports. This will adversely affect the current account balance.

(vi) Loss of competitiveness will be insignificant if currency appreciation is because of strong fundamentals of the economy.

From the discussions in this unit, we understand that all countries would desire to have steady exchange rates to eliminate the risks and uncertainties associated with international trade and investments. However, nations may sometimes go for trade-offs with weaker exchange rate to stimulate exports and aggregate demand, or a stronger exchange rate to fight inflation.

Learners may keep themselves well-informed on contemporary exchange rate developments and their implications on the economic welfare of countries.

MODULE MULTIPLE CHOICE QUESTIONS

1. Based on the supply and demand model of determination of exchange rate, which of the following ought to cause the domestic currency of Country X to appreciate against dollar?
   (a) The US decides not to import from Country X
   (b) An increase in remittances from the employees who are employed abroad to their families in the home country
   (c) Increased imports by consumers of Country X
   (d) Repayment of foreign debts by Country X

2. All else equal, which of the following is true if consumers of India develop taste for imported commodities and decide to buy more from the US?
   (a) The demand curve for dollars shifts to the right and Indian Rupee appreciates
   (b) The supply of US dollars shrinks and, therefore, import prices decrease
   (c) The demand curve for dollars shifts to the right and Indian Rupee depreciates
   (d) The demand curve for dollars shifts to the left and leads to an increase in exchange rate

3. 'The nominal exchange rate is expressed in units of one currency per unit of the other currency. A real exchange rate adjusts this for changes in price levels'. The statements are
   (a) wholly correct   (b) partially correct
   (c) wholly incorrect   (d) None of the above

4. Match the following by choosing the term which has the same meaning
   (i) floating exchange rate   (ii) fixed exchange rate
   iii) pegged exchange rate   a. depreciation
   (iv) devaluation   b. revaluation
   (v) appreciation   c. flexible exchange rate
   (a) (i c); (ii d); (iii b); (iv a))
   (b) (i b); (ii a); (iii d); (iv c)
   (c) (i a); (ii d) ; (iii b); (iv c)
   (d) (i d); (ii a); (iii b); (iv c)

5. Choose the correct statement

    (a)   An indirect quote is the number of units of a local currency exchangeable for one unit of a foreign currency

    (b)   the fixed exchange rate regime is said to be efficient and highly transparent.

    (c)   A direct quote is the number of units of a local currency exchangeable for one unit of a foreign currency

    (d)   Exchange rates are generally fixed by the central bank of the country

6. Which of the following statements is true?

    (a)   Home-currency appreciation or foreign-currency depreciation takes place when there is a decrease in the home currency price of foreign currency

    (b)   Home-currency depreciation takes place when there is an increase in the home currency price of the foreign currency

    (c)   Home-currency depreciation is the same as foreign-currency appreciation and implies that the home currency has become relatively less valuable.

    (d)   All the above

7. An increase in the supply of foreign exchange

    (a)   shifts the supply curve to the right and as a consequence, the exchange rate declines

    (b)   shifts the supply curve to the right and as a consequence, the exchange rate increases

    (c)   more units of domestic currency are required to buy a unit of foreign exchange

    (d)   the domestic currency depreciates and the foreign currency appreciates

8. Currency devaluation

    (a)   may increase the price of imported commodities and, therefore, reduce the international competitiveness of domestic industries

    (b)   may reduce export prices and increase the international competitiveness of domestic industries

    (c)   may cause a fall in the volume of exports and promote consumer welfare through increased availability of goods and services

    (d)   (a) and (c) above

9. At any point of time, all markets tend to have the same exchange rate for a given currency due to

(a) Hedging

(b) Speculation

(c) Arbitrage

(d) Currency futures

10. 'Vehicle Currency' refers to

(a) a currency that is widely used to denominate international contracts made by parties because it is the national currency of either of the parties

(b) a currency that is traded internationally and, therefore, is in high demand

(c) a type of currency used in euro area for synchronization of exchange rates

(d) a currency that is widely used to denominate international contracts made by parties even when it is not the national currency of either of the parties

ANSWERS:

1	(b)	2	(c)	3	(a)	4	(d)	5	(c)	6	(d)
7	(a)	8	(b)	9	(c)	10	(d)				

SUMMARY

- Exchange rate is the rate at which the currency of one country exchanges for the currency of another country.

- A direct quote (European Currency Quotation) is the number of units of a local currency exchangeable for one unit of a foreign currency. For example, ₹ 65/US$.

- An indirect quote (American Currency Quotation) is the number of units of a foreign currency exchangeable for one unit of local currency; for example: $ 0.0151 per rupee.

- In a direct quotation, the foreign currency is the base currency and the domestic currency is the counter currency. In an indirect quotation, the domestic currency is the base currency and the foreign currency is the counter currency.

- The rate between Y and Z which is derived from the given rates of another set of two pairs of currency (say, X and Y, and, X and Z) is called cross rate.

- An exchange rate regime is the system by which a country manages its currency with respect to foreign currencies.

- There are two major types of exchange rate regimes at the extreme ends; namely floating exchange rate regime, (also called a flexible exchange rate) and fixed exchange rate regime.

- Under floating exchange rate regime, the equilibrium value of the exchange rate of a country's currency is market determined i.e. the demand for and supply of currency relative to other currencies determines the exchange rate.

- A fixed exchange rate, also referred to as pegged exchange rate, is an exchange rate regime under which a country's government announces, or decrees, what its currency will be worth in terms of either another country's currency or a basket of

currencies or another measure of value, such as gold.

➤ A central bank may implement soft peg policy under which the exchange rate is generally determined by the market or a hard peg where the central bank sets a fixed and unchanging value for the exchange rate.

➤ A fixed exchange rate avoids currency fluctuations and eliminates exchange rate risks and transaction costs, enhances international trade and investment and lowers the levels of inflation. But the central bank has to maintain an adequate amount of reserves and be always ready to intervene in the foreign exchange market.

➤ A floating exchange rate allows a government to pursue its own independent monetary policy and there is no need for market intervention or maintenance of reserves. However, volatile exchange rates generate a lot of uncertainties with regard to international transactions.

➤ The 'real exchange rate' incorporates changes in prices and describes 'how many' of a good or service in one country can be traded for 'one' of that good or service in a foreign country.

➤ Real exchange rate = Nominal exchange rate X $\dfrac{\text{Domestic price Index}}{\text{Foreign price Index}}$

➤ Real Effective Exchange Rate (REER) is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of various foreign currencies) divided by a price deflator or index of costs.

➤ The wide-reaching collection of markets and institutions that handle the exchange of foreign currencies is known as the foreign exchange market. Being an over-the-counter market, it is not a physical place; rather, it is an electronically linked network bringing buyers and sellers together and has only very narrow spreads.

➤ On account of arbitrage, regardless of physical location, at any given moment, all markets tend to have the same exchange rate for a given currency. Arbitrage refers to the practice of making risk-less profits by intelligently exploiting price differences of an asset at different dealing places.

- There are two types of transactions in a forex market: current transactions which are carried out in the spot market and future transactions involving contracts to buy or sell currencies for future delivery which are carried out in forward and futures markets.

- Generally, the supply of and demand for foreign exchange in the domestic foreign exchange market determine the external value of the domestic currency, or in other words, a country's exchange rate.

- Changes in exchange rates portray depreciation or appreciation of one currency. The terms, 'currency appreciation' and 'currency depreciation' describe the movements of the exchange rate.

- Currency appreciates when its value increases with respect to the value of another currency or a basket of other currencies. On the contrary, currency depreciates when its value falls with respect to the value of another currency or a basket of other currencies.

- Devaluation is a deliberate downward adjustment by central bank in the value of a country's currency relative to another currency, group of currencies or standard.

- An appreciation of a country's currency cause changes in import and export prices will lead to changes in import and export volumes, causing resulting in import spending and export earnings.

- Exchange rate depreciation lowers the relative price of a country's exports, raises the relative price of its imports, increases demand both for domestic import-competing goods and for exports, leads to output expansion, encourages economic activity, increases the international competitiveness of domestic industries, increases the volume of exports and improves trade balance.

- Currency appreciation raises the price of exports, decrease exports; increase imports, adversely affect the competitiveness of domestic industry, cause larger deficits and worsens the trade balance.

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UNIT 5: INTERNATIONAL CAPITAL MOVEMENTS

1. INTRODUCTION

In unit one, our focus was on international trade in goods and services. Lately, we have observed enormous increase in international movement of capital. This phenomenon has received a great deal of attention not only from economists and policy-makers, but also from people in different walks of life- including workers' organisations and members of the civil society. In this unit, we shall look into international capital movements; more precisely, why do capital move across national boundaries and what are the consequences of such capital movements. We shall also briefly touch upon the FDI situation in India.

2. TYPES OF FOREIGN CAPITAL

The term 'foreign capital' is a comprehensive one and includes any inflow of capital into the home country from abroad and therefore, we need to be clear about the distinction between movement of capital and foreign investment. Foreign capital may flow into an economy in different ways. Some of the important components of foreign capital flows are:

(1) Foreign aid or assistance which may be:

    (a) Bilateral or direct inter government grants.

    (b) Multilateral aid from many governments who pool funds with international organizations like the World Bank.

    (c) Tied aid with strict mandates regarding the use of money or untied aid where there are no such stipulations

    (d) Foreign grants which are voluntary transfer of resources by governments, institutions, agencies or organizations.

(2) Borrowings which may take different forms such as:

    (a) Direct inter government loans

    (b) Loans from international institutions (e.g. world bank, IMF, ADB)

    (c) Soft loans for e.g. from affiliates of World Bank such as IDA

    (d) External commercial borrowing, and

    (e) Trade credit facilities

(3) Deposits from non-resident Indians (NRI)

(4)   Investments in the form of :

(i)   Foreign portfolio investment (FPI) in bonds, stocks and securities, and

(ii)   Foreign direct investment (FDI) in industrial, commercial and similar other enterprises

A detailed discussion about all types of capital movements is beyond the scope of this unit and therefore, we shall concentrate only on foreign investments.

3.   FOREIGN DIRECT INVESTMENT (FDI)

Foreign direct investment (FDI), according to IMF manual on 'Balance of payments' is "all investments involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy in an enterprise resident in an economy other than that of the direct investor". This typically occurs through acquisition of more than 10 percent of the shares of the target asset. Direct investment comprises not only the initial transaction establishing the relationship between the investor and the enterprise, but also all subsequent transactions between them and among affiliated enterprises, both incorporated and unincorporated.

According to the IMF and OECD definitions, the acquisition of at least ten percent of the ordinary shares or voting power in a public or private enterprise by non-resident investors makes it eligible to be categorized as foreign direct investment (FDI). India also follows the same pattern of classification. FDI has three components, viz., equity capital, reinvested earnings and other direct capital in the form of intra-company loans between direct investors (parent enterprises) and affiliate enterprises.

Foreign direct investors may be individuals, incorporated or unincorporated private or public enterprises, associated groups of individuals or enterprises, governments or government agencies, estates, trusts, or other organizations or any combination of the above-mentioned entities. The main forms of direct investments are: the opening of overseas companies, including the establishment of subsidiaries or branches, creation of joint ventures on a contract basis, joint development of natural resources and purchase or annexation of companies in the country receiving foreign capital.

Direct investments are real investments in factories, assets, land, inventories etc. and involve foreign ownership of production facilities. The investor retains control over the use of the invested capital and also seeks the power to exercise control over decision making to the extent of its equity participation. The lasting interest

implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence by the investor on the management of the enterprise.

Based on the nature of foreign investments, FDI may be categorized as horizontal, vertical or conglomerate.

(i) A horizontal direct investment is said to take place when the investor establishes the same type of business operation in a foreign country as it operates in its home country, for example, a cell phone service provider based in the United States moving to India to provide the same service.

(ii) A vertical investment is one under which the investor establishes or acquires a business activity in a foreign country which is different from the investor's main business activity yet in some way supplements its major activity. For example; an automobile manufacturing company may acquire an interest in a foreign company that supplies parts or raw materials required for the company.

(iii) A conglomerate type of foreign direct investment is one where an investor makes a foreign investment in a business that is unrelated to its existing business in its home country. This is often in the form of a joint venture with a foreign firm already operating in the industry, as the investor has no previous experience.

Yet another category of investment is 'two- way direct foreign investments' which are reciprocal investments between countries. These investments occur when some industries are more advanced in one nation (for example, the computer industry in the United States), while other industries are more efficient in other nations (such as the automobile industry in Japan).

4. FOREIGN PORTFOLIO INVESTMENT (FPI)

Foreign portfolio investment is the flow of what economists call 'financial capital' rather than 'real capital' and does not involve ownership or control on the part of the investor. Examples of foreign portfolio investment are the deposit of funds in an Indian or a British bank by an Italian company, the purchase of a bond (a certificate of indebtedness) of a Swiss company or the Swiss government by a citizen or company based in France. Unlike FDI, portfolio capital, in general, moves to investment in financial stocks, bonds and other financial instruments and is effected largely by individuals and institutions through the mechanism of capital market.

These flows of financial capital have their immediate effects on balance of payments or exchange rates rather than on production or income generation.

Foreign portfolio investment (FPI) is not concerned with either manufacture of goods or with provision of services. Such investors also do not have any intention of exercising voting power or controlling or managing the affairs of the company in whose securities they invest. The sole intention of a foreign portfolio investor is to earn a remunerative return through investment in foreign securities and is primarily concerned about the safety of their capital, the likelihood of appreciation in its value, and the return generated. Logically, portfolio capital moves to a recipient country which has revealed its potential for higher returns and profitability.

Following international standards, portfolio investments are characterised by lower stake in companies with their total stake in a firm at below 10 percent. It is also noteworthy that unlike the FDIs, these investments are typically of short term nature, and therefore, are not intended to enhance the productive capacity of an economy by the creation of capital assets.

Portfolio investors will evaluate, on a separate basis, the prospects of each independent unit in which they might invest and may often shift their capital with changes in these prospects.

Therefore, portfolio investments are, to a large extent, expected to be speculative. Once investor confidence is shaken, such capital has a tendency to speedily shift from one country to another, occasionally creating financial crisis for the host country.

Foreign direct investment (FDI) VS Foreign portfolio investment (FPI)

Foreign Direct Investment (FDI)	Foreign Portfolio Investment (FPI)
Investment involves creation of physical assets	Investment is only in financial assets
Has a long term interest and therefore remain invested for long	Only short term interest and generally remain invested for short periods
Relatively difficult to withdraw	Relatively easy to withdraw
Not inclined to be speculative	Speculative in nature
Often accompanied by technology transfer	Not accompanied by technology transfer

Direct impact on employment of labour and wages	No direct impact on employment of labourand wages
Enduring interest in management and control	No abiding interest in management and control
Securities are held with significant degreeof influence by the investor on the management of the enterprise	Securities are held purely as a financial investment and no significant degree of influence on the management of the enterprise

5. **Securities are held purely as a financial investment and no significant degree of influence on the management of the enterprise**

As we know, economic prosperity and the relative abundance of capital are necessary prerequisites for export of capital to other countries. Many economies and organisations have accumulation of huge mass of reserve capital seeking profitable use. The primary aim of economic agents being maximisation of their economic interests, the opportunity to generate profits available in other countries often entices such entities to make investments in other countries.

The chief motive for shifting of capital between different regions or between different industries is the expectation of higher rate of return than what is possible in the home country.

Investment in a host country may be considered as profitable by foreign firms because of some firm-specific knowledge or assets (such as superior management skills or an important patent) that enable the foreign firm to gainfully outperform the host country's domestic firms.

There are many other reasons (as listed below) for international capital movements which have found adequate empirical support. Investments move across borders on account of:

➢ the increasing interdependence of national economies and the consequent trade relations and international industrial cooperation established among them

➢ internationalisation of production and investment of transnational corporations in their subsidiaries and affiliates.

➢ desire to reap economies of large-scale operation arising from technological growth

- lack of feasibility of licensing agreements with foreign producers in view of the rapid rate of technological innovations

- necessity to retain direct control of production knowledge or managerial skill (usually found in monopolistic or oligopolistic markets) that could easily and profitably be utilized by corporations

- desire to procure a promising foreign firm to avoid future competition and the possible loss of export markets

- risk diversification so that recessions or downturns may be experienced with reduced severity

- shared common language or common boundaries and possible saving in time and transport costs because of geographical proximity

- necessity to retain complete control over its trade patents and to ensure consistent quality and service or for creating monopolies in a global context

- promoting optimal utilization of physical, human, financial and other resources

- desire to capture large and rapidly growing high potential emerging markets with substantially high and growing population

- ease of penetration into the markets of those countries that have established import restrictions such as blanket bans, high customs duties or non-tariff barriers which make it difficult for the foreign firm to sell in the host-country market by 'getting behind the tariff wall'.

- lower environmental standards in the host country and the consequent relative savings in costs

- stable political environment and overall favourable investment climate in the host country

- higher degree of openness to foreign capital exhibited by the recipient country and the prevalence of preferential investment systems such as special economic zones to encourage direct foreign investments

- the strategy to obtain control of strategic raw material or resource so as to ensure their uninterrupted supply at the lowest possible price; usually a form of vertical integration

- desire to secure access to minerals or raw material deposits located elsewhere and earn profits through processing them to finished form (Eg.FDI in petroleum)

- the existence of low relative wages in the host country because of relative labour abundance coupled with shortage and high cost of labour in capital exporting countries, especially when the production process is labour intensive.

- lower level of economic efficiency in host countries and identifiable gaps in development.
- tax differentials and tax policies of the host country which support foreign direct investment. However, a low tax burden cannot compensate for a generally fragile and unattractive FDI environment.
- inevitability of defensive investments in order to preserve a firm's competitive position.
- high gross domestic product and high per capita income coupled with their high rate of growth. There are also other philanthropic objectives such as strengthening of socio-economic infrastructure, alleviation of poverty and maintenance of ecological balance of the host country, and
- prevalence of high standards of social amenities and possibility of good quality of life in the host country.

Host Country Determinants of Foreign Direct Investment

Economic Determinants	Policy Framework
Market -seeking FDI: Market size and per capita income Market growth Access to regional and global markets Country-specific consumer preferences Structure of markets	Economic, political, and social stability Rules regarding entry and operations Standards of treatment of foreign affiliates
Resource - or asset-seeking FDI: Raw materials Low -cost unskilled labor Availability of skilled labor Technological, innovative, & other created assets (e.g., brand names) Physical infrastructure	Policies on functioning and structure of markets (e.g., regarding competition, mergers) International agreements on FDI Privatization policy Trade policies and coherence of FDI and trade policies Tax policy
Efficiency -seeking FDI: Costs of above physical and human resources and assets (including an adjustment for productivity) Other input costs (e.g., intermediate products, transport costs) Membership of country in a regional integration agreement, which could be conducive to forming regional corporate networks	**Business Facilitation** Investment promotion (including image building and investmentgenerating activities and investmentfacilitation services) Investment incentives "Hassle costs" (related to corruption and administrative efficiency) Social amenities (e.g., bilingual schools, quality of life) After-investment services

Factors in the host country discouraging inflow of foreign investments are infrastructure lags, high rates of inflation, balance of payment deficits, poor literacy and low labour skills, rigidity in the labour market, bureaucracy and corruption, unfavourable tax regime, cumbersome legal formalities and delays, difficulties in contract enforcement, land acquisition issues, small size of market and lack of potential for its growth, political instability, absence of well-defined property rights, exchange rate volatility, poor track-record of investments, prevalence of non-tariff barriers, stringent regulations, lack of openness, language barriers, high rates of industrial disputes, lack of security to life and property, lack of facilities for immigration and employment of foreign technical and administrative personnel, double taxation and lack of a general spirit of friendliness towards foreign investors.

6. MODES OF FOREIGN DIRECT INVESTMENT (FDI)

Foreign direct investments can be made in a variety of ways, such as:

(i) Opening of a subsidiary or associate company in a foreign country,

(ii) Equity injection into an overseas company,

(iii) Acquiring a controlling interest in an existing foreign company,

(iv) Mergers and acquisitions(M&A)

(v) Joint venture with a foreign company.

(vi) Green field investment (establishment of a new overseas affiliate for freshly starting nproduction by a parent company).

(vii) Brownfield investments (a form of FDI which makes use of the existing infrastructure by merging, acquiring or leasing, instead of developing a completely new one. For e.g. in India 100% FDI under automatic route is allowed in Brownfield Airport projects.

7. BENEFITS OF FOREIGN DIRECT INVESTMENT

The benefits from and concerns about FDI are widely discussed and well documented. While recognizing the fact that there are also benefits and costs to the home country from capital outflow, in this unit we focus only on host-country effects of FDI with particular attention to the developing countries. Following are the benefits ascribed to foreign investments:

1. Entry of foreign enterprises usually fosters competition and generates a competitive environment in the host country. The domestic enterprises are compelled to compete with the foreign enterprises operating in the domestic market. This results in positive outcomes in the form of cost-reducing and quality-improving innovations, higher efficiency and increasing variety of better products and services at lower prices ensuring wider choice and welfare for consumers.

2. International capital allows countries to finance more investment than can be supported by domestic savings. The provision of increased capital to work with labour and other resources available in the host country can enhance the total output/GDP (as well as output per unit of input) flowing from the factors of production.

3. From the perspective of emerging and developing countries, FDI can accelerate growth and foster economic development by providing the much needed capital, technological know-how, management skills, marketing methods and critical human capital skills in the form of managers and technicians. The spill-over effects of the new technologies usually spread beyond the foreign corporations. In addition, the new technology can clearly enhance the recipient country's production possibilities.

4. Competition for FDI among national governments also has helped to promote political and structural reforms important to attract foreign investors, including legal systems and macroeconomic policies.

5. Since FDI involves setting up of production base (in terms of factories, power plants, etc.), it generates direct employment in the recipient country. Subsequent FDI as well as domestic investments propelled in the downstream and upstream projects that come up in multitude of other services, generate multiplier effects on employment and income/GDP.

6. FDI not only creates direct employment opportunities but also, through backward and forward linkages, generate indirect employment opportunities. This impact is particularly important if the recipient country is a developing country with an excess supply of labour caused by population pressure.

7. Foreign direct investments also promote relatively higher wages for skilled jobs. More indirect employment will be generated to people in the lower-end services sector occupations thereby catering to an extent even to the less educated and unskilled persons engaged in those units.

8. Foreign corporations provide better access to foreign markets. Unlike portfolio investments, FDI generally entails people-to-people relations and is usually considered as a promoter of bilateral and international relations. Greater openness to foreign capital leads to higher national dependence on international investors, making the cost of discords higher.

9. There is also greater possibility for the promotion of ancillary units resulting in job creation and skill development for workers.

10. Foreign enterprises possessing marketing information with their global network of marketing are in a unique position to utilize these strengths to promote the exports of developing countries. If the foreign capital produces goods with export potential, the host country is in a position to secure scarce foreign exchange needed to import capital equipments or materials to assist the country's development plans or to ease its external debt servicing.

11. If the host country is in a position to implement effective tax measures, the foreign investment projects also would act as a source of new tax revenue which can be used for development projects.

12. It is likely that foreign investments enter into industries in which economies of scale can be realized so that consumer prices may be reduced. Domestic firms might not always be able to generate the necessary capital to achieve the cost reductions associated with large-scale production.

13. Increased competition resulting from the inflow of foreign direct investments facilitates weakening of the market power of domestic monopolies resulting in a possible increase in output and fall in prices.

14. Since FDI has a distinct advantage over the external borrowings, it is considered to have a favourable impact on the host country's balance of payment position, and

15. Better work culture and higher productivity standards brought in by foreign firms may possibly induce productivity related awareness and may also contribute to overall human resources development.

8. POTENTIAL PROBLEMS ASSOCIATED WITH FOREIGN DIRECT INVESTMENT

In the above section, we have seen that a wide variety of benefits may result from an inflow of foreign direct investment. These gains do not occur in all cases, nor do they occur in the same magnitude. Despite the arguments in favour of FDI, many are highly critical of the impact of foreign capital, especially on developing economies. They argue that foreign entities are highly focused on profits and have an eye on exploiting the natural resources and are almost always not genuinely interested in the development needs of host countries. Foreign capital is perceived by the critics as an instrument of imperialism, perpetrator of dependence and source of inequality between and within the nations.

Following are the general arguments put forth against the entry of foreign capital:

1) FDIs are likely to concentrate on capital-intensive methods of production and service so that they need to hire only relatively few workers. Such technology is inappropriate for a labour-abundant country as it does not support generation of jobs which is a crucial requirement to address the two fundamental areas of concern for the less developed countries namely, poverty and unemployment

2) The inherent tendency of FDI flows to move towards regions or states which are well endowed in terms of natural resources and availability of infrastructure has the potential to accentuate regional disparity. Foreign capital is also criticized for accentuating the already existing income inequalities in the host country.

3) In the context of developing countries, it is usually alleged that the inflow of foreign capital may cause the domestic governments to slow down its efforts to generate more domestic savings, especially when tax mechanisms are difficult to implement. If the foreign corporations are able to secure incentives in the form of tax holidays or similar provisions, the host country loses tax revenues.

4) Often, the foreign firms may partly finance their domestic investments by borrowing funds in the host country's capital market. This action can raise interest rates in the host country and lead to a decline in domestic investments

through 'crowding-out' effect. Moreover, suppliers of funds in developing economies would prefer foreign firms due to perceived lower risks and such shifts of funds may divert capital away from investments which are crucial for the development needs of the country.

5) The expected benefits from easing of the balance of payments situation might remain unrealised or narrowed down due to the likely instability in the balance of payments and the exchange rate. Obviously, FDI brings in more foreign exchange, improves the balance of payments and raises the value of the host country's currency in the exchange markets. However, when imported inputs need to be obtained or when profits are repatriated, a strain is placed on the host country's balance of payments and the home currency leading to its depreciation. Such instabilities jeopardize longterm economic planning. Foreign corporations also have a tendency to use their usual input suppliers which can lead to increased imports. Also, large scale repatriation of profits can be stressful on exchange rates and the balance of payments.

6) Jobs that require expertise and entrepreneurial skills for creative decision making may generally be retained in the home country and therefore the host country is left with routine management jobs that demand only lower levels of skills and ability. The argument of possible human resource development and acquisition of new innovative skills through FDI may not be realized in reality.

7) High profit orientation of foreign direct investors tend to promote a distorted pattern of production and investment such that production could get concentrated on items of elite and popular consumption and on non-essential items.

8) Foreign entities are usually accused of being anti-ethical as they frequently resort to methods like aggressive advertising and anticompetitive practices which would induce market distortions.

9) A large foreign firm with deep pockets may undercut a competitive local industry because of various advantages (such as in technology) possessed by it and may even drive out domestic firms from the industry resulting in serious problems of displacement of labour. The foreign firms may also exercise a high

degree of market power and exist as monopolists with all the accompanying disadvantages of monopoly. The high growth of wages in foreign corporations can influence a similar escalation in the domestic corporations which are not able to cover this increase with growth of productivity. The result is decreasing competitiveness of domestic companies which might prove detrimental to the long-term interests of industrial development of the host country.

10) FDI usually involves domestic companies 'off –shoring', or shifting jobs and operations abroad in pursuit of lower operating costs and consequent higher profits. This has deleterious effects on employment potential of home country.

11) The continuance of lower labour or environmental standards in host countries is highly appreciated by the profit seeking foreign enterprises. This is of great concern because efforts to converge such standards often fail to receive support from interested parties.

12) At times, there is potential national security considerations involved when foreign firms function in the territory of the host country, especially when acute hostilities prevail.

13) FDI may have adverse impact on the host country's commodity terms of trade (defined as the price of a country's exports divided by the price of its imports). This could occur if the investments go into production of export-oriented goods and the country is a large country in the sale of its exports. Thus, increased exports drive down the price of exports relative to the price of imports.

14) FDI is also held responsible by many for ruthless exploitation of natural resources and the possible environmental damage.

15) With substantial FDI in developing countries there is a strong possibility of emergence of a dual economy with a developed foreign sector and an underdeveloped domestic sector.

16) Perhaps the most disturbing of the various charges levied against foreign direct investment is that a large foreign investment sector can exert excessive amount of power in a variety of ways so that there is potential loss of control by host

country over domestic policies and therefore the less developed host country's sovereignty is put at risk. Mighty multinational firms are often criticized of corruption issues, unduly influencing policy making and evasion of corporate social responsibility.

No general assessment can be made regarding whether the benefits of FDI outweigh the costs. Each country's situation and each firm's investment must be examined in the light of various considerations and a judgment about the desirability or otherwise of the investment should be arrived at.

Many safeguards and performance requirements are put in place by developed and developing countries to improve the ratio of benefits to costs associated with foreign capital.

A few examples are: domestic content requirements on inputs, reservation of certain key sectors to domestic firms, requirement of a minimum percent of local employees, ceiling on repatriation of profits, local sourcing requirements and stipulations for full or partial export of output to earn foreign exchange.

9. FOREIGN DIRECT INVESTMENT IN INDIA

Foreign Direct Investment (FDI), in addition to being a key driver of economic growth, has been a significant non-debt financial resource for India's economic development. Foreign The corporations invest in India to benefit from the country's particular investment privileges such as tax breaks and comparatively lower salaries. This helps India develop technological know how and create jobs as well as other benefits. These investments have been coming into India because of the government's supportive policy framework, vibrant business climate, rising global competitiveness and economic influence.

The government has recently made numerous efforts, including easing FDI regulations in various industries, PSUs, oil refineries, telecom and defence. India's FDI inflows reached record levels during 2020-21. The total FDI inflows stood at US$ 81,973 million, a 10% increase over the previous financial year. According to the World Investment Report 2022, India was ranked eighth among the world's major FDI recipients in 2020, up from ninth in 2019. Information and technology, telecommunication and automobile were the major receivers of FDI in FY22.

With the help of significant transactions in the technology and health sectors, multinational companies (MNCs) have pursued strategic collaborations with top domestic business groupings, fuelling an increase in cross-border M&A of 83% to US$ 27 billion.

10. OVERSEAS DIRECT INVESTMENT BY INDIAN COMPANIES

India is primarily a domestic demand-driven economy, with consumption and investments contributing to 70% of the economic activity. With an improvement in the economic scenario and the Indian economy recovering from the Covid-19 pandemic shock, India is relatively well placed than the rest of the world. Despite major headwinds that continue to pose risks in the short term, the Indian economy has remained strong owing to robust policy measures in place.

This gives Indian businesses an advantage to make investments abroad and broaden their operational footprint in such nations. New innovations from abroad would be brought to India with the help of knowledge spillover, and India itself would contribute to the growth of other nations. In this manner, a mutual benefit is achieved. In this regard, there have been several overseas investments made by Indian companies. Some of the key overseas investments and developments that have taken place in the recent past are mentioned as follows:

According to data released by the Reserve Bank of India (RBI), overseas direct investment stood at US$ 1,922.51 million in September 2022.

The critical investments are as follows:

- In June 2022, Tata Steel announced plans to invest 7 million pounds (US$ 837.95 billion) for its Hartlepool Tube Mill in North-East England.
- Tata Communications invested US$ 690 million in its wholly-owned subsidiary in Singapore.
- Jindal Steel and Power invested US$ 366 million in its wholly owned subsidiary in Mauritius
- Wipro invested US$ 204.96 million in its wholly-owned subsidiary in Cyprus.
- Jindal Saw invested US$ 64.5 million in its wholly-owned subsidiary in the United Arab Emirates.
- Restaurant Brand Aisa and Lupin Ltd invested US$ 141.34 million and US$ 131.25 million in their JVs in Indonesia and the US, respectively.
- Reliance New Energy invested US$ 87.73 million in its wholly owned subsidiary in Norway.

- Mohalla Internet Pvt. Ltd. invested US$ 86 million in its fully owned unit in Mauritius.
- ONGC Videsh invested US$ 83.31 million in a joint-venture in Russia.
- ICICI Bank ties up with Santander in Britain in a pact aimed at facilitating the banking requirements of corporates operating across both countries.
- ANI Technologies, the promoter of OLA, invested US$ 675 million in its wholly-owned subsidiary in Singapore.
- Dr Reddy invested US$ 149.99 million in a joint- venture (JV) in the US.
- A total of US$ 168.9 million was invested by Reliance New Energy in a JV and whollyowned subsidy in Germany and Norway.
- Gail India, energy PSU invested US$ 70.17 million in a JV and wholly-owned unit in Myanmar and the US.
- ONGC invested US$ 74.15 million during the month in various countries in 5 different ventures.
- In July 2022, Reliance Brands Ltd. signed a distribution agreement with Maison Valentino, an Italian luxury fashion house, to open its first boutique in Delhi, followed by a flagship store in Mumbai.
- In July 2022, Reliance Retail Limited entered into a long-term partnership with Gap Inc. to bring the iconic American fashion brand, Gap, to India.
- In July 2022, Tata Steel signed a Memorandum of Understanding (MoU) with BHP, a leading global resources company, with the intention to jointly study and explore lowcarbon iron and steelmaking technology.
- In January 2022, Ola Electric, the ride-hailing company's electric vehicle (EV) subsidiary, announced its plans to establish Ola Futurefoundry, a global hub for advanced engineering and vehicle design in the UK, investing US$ 100 million over the next 5 years.
- In January, Essar Group of India announced that it had created a joint venture with Progressive Energy of the UK to invest US$ 1.34 billion in a hydrogen manufacturing plant at its Essar Stanlow refinery complex.
- In January, Hindalco Ltd's US subsidiary, Novelis, announced its plans to invest US$ 365 million in a state-of-the-art vehicle recycling facility in North America.

MODULE MULTIPLE CHOICE QUESTIONS

1. Which of the following statements is incorrect?
   (a) Direct investments are real investments in factories, assets, land, inventories etc. and involve foreign ownership of production facilities.
   (b) Foreign portfolio investments involve flow of 'financial capital' .
   (c) Foreign direct investment (FDI) is not concerned with either manufacture of goods or with provision of services.
   (d) Portfolio capital moves to a recipient country which has revealed its potential for higher returns and profitability.

2. Which of the following is a component of foreign capital?
   (a) Direct inter government loans
   (b) Loans from international institutions (e.g. World Bank, IMF, ADB)
   (c) Soft loans for e.g. from affiliates of World Bank such as IDA
   (d) All the above

3. Which of the following would be an example of foreign direct investment from Country X?
   (a) A firm in Country X buys bonds issued by a Chinese computer manufacturer.
   (b) A computer firm in Country X enters into a contract with a Malaysian firm for the latter to make and sell to it processors
   (c) Mr. Z a citizen of Country X buys a controlling share in an Italian electronics firm
   (d) None of the above

4. Which of the following types of FDI includes creation of fresh assets and production facilities in the host country?
   (a) Brownfield investment   (b) Merger and acquisition
   (c) Greenfield investment   (d) Strategic alliances

5. Which is the leading country in respect of inflow of FDI to India?
   (a) Mauritius   (b) USA
   (c) Japan   (d) USA

6. An argument in favour of direct foreign investment is that it tends to
   (a) promote rural development
   (b) increase access to modern technology
   (c) protect domestic industries
   (d) keep inflation under control

7. Which of the following is a reason for foreign direct investment?
   (a) secure access to minerals or raw materials
   (b) desire to capture of large and rapidly growing emerging markets
   (c) desire to influence home country industries
   (d) (a) and (b) above

8. A foreign direct investor
   (a) May enter India only through automatic route
   (b) May enter India only through government route
   (c) May enter India only through equity in domestic enterprises
   (d) Any of the above

9. Foreign investments are prohibited in
   (a) Power generation and distribution   (b) Highways and waterways
   (c) Chit funds and Nidhi company   (d) Airports and air transport

10. Which of the following statement is false in respect of FPI?
    (a) portfolio capital in general, moves to investment in financial stocks, bonds and other financial instruments
    (b) is effected largely by individuals and institutions through the mechanism of capital market
    (c) is difficult to recover as it involves purely long-term investments and the investors have controlling interest
    (d) investors also do not have any intention of exercising voting power or controlling or managing the affairs of the company.

ANSWERS:

| 1	(c)	2	(d)	3	(c)	4	(c)	5	(a)	6	(b)
7	(d)	8	(d)	9	(c)	10	(c)				

SUMMARY

- Foreign capital may flow into an economy in different ways, such as foreign aid, grants, borrowings, deposits from non-resident Indians, investments in the form of foreign portfolio investment (FPI) and foreign direct investment (FDI)

- Foreign direct investment is defined as a process whereby the resident of one country (i.e. home country) acquires ownership of an asset in another country (i.e. the host country) and such movement of capital involves ownership, control as well as management of the asset in the host country.

- Direct investments are real investments in factories, assets, land, inventories etc. and have three components, viz., equity capital, reinvested earnings and other direct capital in the form of intra-company loans. FDI may be categorized as horizontal, vertical or conglomerate.

- Foreign portfolio investment is the flow of 'financial capital' with stake in a firm at below 10 percent, and does not involve manufacture of goods or provision of services, ownership management or control of the asset on the part of the investor.

- The main reasons for foreign direct investment are profits, higher rate of return, possible economies of large-scale in operation, risk diversification, retention of trade patents, capture of emerging markets, lower host country environmental and labour standards, bypassing of non-tariff and tariff barriers, cost–effective availability of needed inputs and tax and investment incentives.

- Foreign direct investment takes place through opening of a subsidiary or associate company, equity injection, acquiring a controlling interest, mergers and acquisitions (M&A), joint venture and green field investment.

- Benefits of foreign direct investment include positive outcomes of competition such as cost- reducing and quality-improving innovations, higher efficiency, huge variety of better products and services at lower prices, welfare for consumers, multiplier effects on employment, output and income, relatively higher wages, better access

to foreign markets, control of domestic monopolies and improvement of balance of payments position.

➤ Potential problems of foreign direct investment include use of inappropriate capitalintensive methods in a labour-abundant country, increase in regional disparity, crowding-out of domestic investments, diversion of capital resulting in distorted pattern of production and investment, instability in the balance of payments and exchange rate and indiscriminate repatriation of the profits.

➤ FDIs are also likely to indulge in anti-ethical market distortions, off–shoring or shifting of jobs, overexploitation of natural resources causing environmental damage, exercising monopoly power, decrease in competitiveness of domestic companies, potentially jeopardizing national security and sovereignty, worsening commodity terms of trade and causing emergence of a dual economy.

➤ FDI in India (Inbound FDI), mostly a post reform phenomenon, is a major source of non-debt financial resource for economic development. The government has, at different stages, liberalized FDI by increasing sectoral caps, bringing in more activities under automatic route and easing conditions for foreign investment.

➤ Overseas direct investments by Indian companies (Outbound FDI), made possible by progressive relaxation of capital controls and simplification of procedures, have undergone substantial changes in terms of size, geographical spread and sectoral composition. Outward Foreign Direct Investment (OFDI) from India stood at US$ 1.86 billion in the month of June 2016.
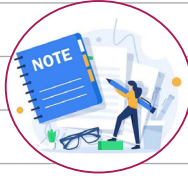
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INDIAN ECONOMY

Chapter 10
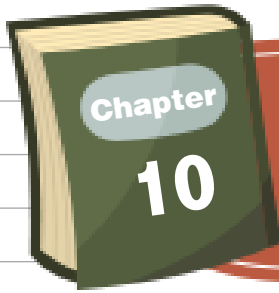
1. STATUS OF INDIAN ECONOMY: PRE INDEPENDENCE PERIOD (1850 -1947)

Between the first and the seventeenth century AD, India is believed to have had the largest economy of the ancient and the medieval world. It was prosperous and self-reliant and is believed to have controlled between one third and one fourth of the world's wealth. The economy consisted of self-sufficient villages as well as cities which were centres of commerce, pilgrimage and administration. Compared to villages, cities presented more opportunities for diverse occupations, trades and gainful economic activities.

Simple division of labour intertwined with attributes such as race, class, and gender was the basis of the structure of the villages and acted as a built-in mechanism of economic and social differentiation. Though agriculture was the dominant occupation and the main source of livelihood for majority of people, the country had a highly skilled set of artisans and craftsmen who produced manufactures, handicrafts and textiles of superior quality and fineness for the worldwide market.

Box.1 Ancient Economic Philosophy of India

The earliest known treatise on ancient Indian economic philosophy is 'Arthashastra' the pioneering work attributed to Kautilya (Chanakya) (321–296 BCE)Arthashastra is recognized as one of the most important works on statecraft in the genre of political philosophy. It is believed to be a kind of handbook for King Chandragupta Maurya, the founder of Mauryan empire, containing directives as to how to reign over the kingdom and encouraging direct action in addressing political concerns without regard for ethical considerations.

Artha is not wealth alone; rather it encompasses all aspects of the material well-being of individuals. Arthashastra is the science of 'artha' or material prosperity, or "the means of subsistence of humanity," which is, primarily, 'wealth' and, secondarily, 'the land'. The major focus of the work is on the means of fruitfully maintaining and using land. Kautilya emphasizes the importance of robust agricultural initiatives for

an abundant harvest which will go toward filling the state's treasury. Taxes, which were charged equal for private and state-owned businesses, must be fair to all and should be easily understood by the king's subjects.

Being a multidisciplinary discourse on areas such as politics, economics, military strategy, diplomacy, function of the state, and the social organization, Kautilya's writings relate to statecraft, political science, economic policy and military strategy. True kingship is defined as a ruler's subordination of his own desires and ambitions to the good of his people; i.e. a king's policies should reflect a concern for the greatest good of the greatest number of his subjects.

The preservation and advancement of this good was comprised of seven vital elements, namely the King, Ministers, Farmlands, Fortresses, Treasury, Military and the Allies.

The advent of the Europeans and the British marked a shift in the economic history of India.

The period of British rule can be divided into two sub periods:

1. The rule of East India Company from 1757 to 1858
2. British government in India from 1858 to 1947

The historical legacy of British colonialism is an important starting point to illustrate the development path of India. With the onset of Industrial revolution in the latter half of the 18th century, the manufacturing capabilities of Britain increased manifold, and consequently there arose the need to augment raw material supply as well as the need for finding markets for finished goods. This led to a virtual reversal of the nature of India's foreign trade from an exporter of manufactures to an exporter of raw materials.

The Indian exports of finished goods were subjected to heavy tariffs and the imports were charged lower tariffs under the policy of discriminatory tariffs followed by the British. This made the exports of finished goods relatively costlier and the imports cheaper. In this backdrop, the Indian goods lost their competitiveness. Consequently, the external as well as the domestic demand for indigenous products fell sharply culminating in the destruction of Indian handicrafts and manufactures. The destruction of Indian manufactures, mainly due to the hostile imperial policies to serve the British interests and the competition from machinemade goods, had far reaching adverse consequences on the Indian manufacturing sector. The problem was aggravated by the shift in patterns of demand by domestic consumers favouring foreign goods as many Indians wanted to affiliate themselves with western culture

and ways of life.

The damage done to the long established production structure had far reaching economic and social consequences as it destroyed the internal balance of the traditional village economy which was characterized by the harmonious blending of agriculture and handicrafts.

These were manifest as:

1. Large scale unemployment and absence of alternate sources of employment which forced many to depend on agriculture for livelihood

2. The increased pressure on land caused sub division and fragmentation of land holdings, subsistence farming, reduced agricultural productivity and poverty.

3. The imports of cheap machine made goods from Britain and an overt shift of tastes and fashion of Indians in favour of imported goods made the survival of domestic industries all the more difficult.

4. The systems of land tenure, especially the zamindari system created a class of people whose interests were focused on perpetuating the British rule.

5. Excessive pressure on land increased the demand for land under tenancy, and the zamindars got the opportunity to extract excessive rents and other payments

6. Absentee landlordism, high indebtedness of agriculturists, growth of a class of exploitative money lenders and low attention to productivity enhancing measures led to a virtual collapse of Indian agriculture.

We shall now have a look into the stagnated nature of industrialisation during the colonial era. Factory-based production did not exist in India before 1850.The 'Modern' industrial enterprises in colonial India started to grow in the mid-19th century. The cotton milling business grew steadily throughout the second half of the 19th century, and achieved high international competitiveness. The cotton mill industry in India had 9 million spindles in the 1930s, which placed India in the fifth position globally in terms of number of spindles.

Jute mills also expanded rapidly in and around Calcutta in response to a mounting global demand for ropes and other products, and Indian jute occupied a large share of the international market by the late 19th century. At the end of the 19th century, the Indian jute mill industry was the largest in the world in terms of the amount of raw jute consumed in production. In addition, brewing, paper-milling, leather-making, matches, and rice-milling industries also developed during the century. Heavy industries such as the iron industry were also established as early as 1814

by British capital. India's iron industry was ranked eighth in the world in terms of output in 1930. Due to progress in modern industrial enterprises, some industries even reached global standards by the beginning of the 20th century. Just before the Great Depression, India was ranked as the twelfth largest industrialised country measured by the value of manufactured products.

The producer goods industries, however, did not show high levels of expansion. Perhaps, the most important of the factors that led to this state of affairs was the pressure exerted by the English producers in matters of policy formulation to positively discourage the development of industries which were likely to compete with those of the English producers.

India's industrial growth was insufficient to bring in a general transformation in its economic structure. The share in the net domestic product (NDP) of the manufacturing sector (excluding small scale and cottage industries) had barely reached 7% even in 1946.Considering its slow progress, the share of factory employment in India was also small (i.e. 0.4% of the total population in 1900 and 1.4% in 1941).

2. INDIAN ECONOMY: POST-INDEPENDENCE (1947- 1991)

At the time of independence, India was overwhelmingly rural inhabited by mostly illiterate people who were exceedingly poor. We had a deeply stratified society characterized by extreme heterogeneity on many counts. With the literacy rate just above 18 percent and barely 32 years of life expectancy in 1951, India's poverty was not just in terms of income alone, but also in terms of human capital, For historical reasons, the Nehruvian model which supported social and economic redistribution and industrialization directed by the state came to dominate the post-Independence Indian economic policy. Centralized economic planning and direction was at the core of India's development strategy and the economic policies were crafted to accomplish rapid economic growth accompanied by equity and distributive justice. The Planning Commission of India was established to meticulously plan for the economic development of the nation in line with the socialistic strategy. This was carried through the five-year plans which were developed, implemented and monitored by the Planning Commission.

It is pertinent here to have a look at the ideology of industrialization prevailed in the early days of independence. India's political leadership was keen on establishing an economic system in which the central government would have authority to design the economic strategy and to carry out the necessary investments in coordination with the private sector. Rapid industrialization of the economy was the cornerstone

of Nehru's development strategy. The concept of 'planned modernization' meant a systematic planning to support industrialization. The bureaucrats and the technocrats envisioned a substantially significant role for the state in industrialisation.

The Industrial Policy Resolution (1948) envisaged an expanded role for the public sector and licensing to the private sector. It granted state monopoly for strategic areas such as atomic energy, arms and ammunition and railways. Also, the rights to new investments in basic Industries were exclusively given to the state.

The policies in 1950's were guided by two economic philosophies:

1. The then prime minister Nehru's visualization to build a socialistic society with emphasis on heavy industry, and

2. The Gandhian philosophy of small scale and cottage industry and village republics.

The Industrial Policy Resolution of 1956 though provided a comprehensive framework for industrial development, was lopsided as its guiding principle supported enormous expansion of the scope of the public sector. A natural outcome of the undue priority for public sector was the dampening of private initiative and enterprise. For obvious reasons, private investments were discouraged and this had long-lasting negative consequences for industrial growth.

India followed an open foreign investment policy and a relatively open trade policy until the late 1950s. A balance of payments crisis emerged in 1958 causing concerns regarding foreign exchange depletion. Consequently, there emerged a gradual tightening of trade and reduction in investment-licensing of new investments requiring imports of capital goods. The comprehensive import controls were maintained until 1966.

In the first three decades after independence (1950–80), India's average annual rate of growth of GDP- often referred to as the 'Hindu growth rate'- was a modest 3.5 percent. While agriculture was not neglected, the thrust of the first decade and a half was on capital goods— capital-intensive projects such as dams, power plants, and heavy industrialization—rather than consumer goods.

The first major shift in Indian economic strategy was in the mid-1960s. Agriculture was not given adequate priority during the second plan and the outlays were reduced. The strategy for agricultural development till then was reliance on institutional model i.e. land reforms, farm cooperatives etc. and not much importance was given to technocratic areas such as research and development, irrigation etc. These institutional reforms were only modestly successful and the productivity increase in agriculture was meagre.

With continuous failures of monsoon, two severe and consecutive droughts struck India in 1966 and 1967. The agricultural sector recorded substantial negative growth and India faced a serious food problem. India had to depend on the United States for food aid under PL 480. A quantum jump in the food grain production was the need of the hour. Increasing productivity in agriculture was given the highest priority. This, in fact, kick-started a strategic change in the government's agricultural policies. The new wave of change relied less on the earlier efforts at institutional change and relied more on enhancing productivity of agriculture, especially of wheat. A thorough restructuring of agricultural policy referred to as the 'green revolution' was initiated. The green revolution was materialised by innovative farm technologies, including high yielding seed varieties and intensive use of water, fertilizer and pesticides. The green revolution was successful in increasing agricultural productivity through technical progress and significantly increased food grain production enabling India to tide over the food problem.

While India drastically changed its agricultural policies, the government introduced extra stringent administrative controls on both trade and industrial licensing and launched a wave of nationalization. The government nationalized 14 banks in 1969 and then followed it up with nationalizing another 6 in 1980. The wide sweep of the interventionist policies that had come to exist in the 1960s had irreparable consequences in the next decade.

The economic performance during the period of 1965-81 is the worst in independent India's history. The decline in growth during this period is attributed mainly to decline in productivity. The license-raj, the autarchic policies that dominated the 1960s and 1970s, the external shocks such as three wars (in 1962, 1965, and 1971), major droughts (especially 1966 and 1967), and the oil shocks of 1973 and 1979contributed to the decelerated growth that lasted two decades. India being practically a closed economy missed out on the opportunities created by a rapidly growing world economy.

Many government policies aimed at equitable distribution of income and wealth effectively killed the incentive for creating wealth. Equity driven policies were also largely anti growth. The Monopolies and Restrictive Trade Practices (MRTP) Act, 1969 was aimed at regulation of large firms which had relatively large market power. Several restrictions were placed on them in terms of licensing, capacity addition, mergers and acquisitions. Thus, policies restricting the possibility of expansion of big business houses kept their entry away from nearly all but a few highly capital

intensive sectors.

In 1967, the policy of reservation of many products for exclusive manufacture by the small scale sector was initiated with the objective of promotion of small scale industries. It was argued that this policy will encourage labour-intensive economic growth and allow redistribution of income by shifting incomes towards lower wage earners. However, this policy excluded all big firms from labour intensive industries and India was not able to compete in the world market for these products. Stringent labour laws which were in place also discouraged starting of labour intensive industries in the organized sector.

There was a growing realisation among policymakers and industrialists that the prevailing strict regime is invariably counterproductive and that most of the controls and regulations had not delivered in the absence of adequate incentives and openness which are necessary conditions for sustained rapid growth.

3. THE ERA OF REFORMS

The seeds of early liberalisation and reforms were sown during the 1980s, especially after 1985. In early 1980s considerable efforts were initiated in different directions to restore reasonable price stability through a combination of tight monetary policy, fiscal moderation and a few structural reforms. These initiatives, spanning 1981 to 1989, practically referred to as 'early liberalization' were specifically aimed at changing the prevailing thrust on 'inward - oriented' trade and investment practices. In fact, this liberalization is often referred to as 'reforms by stealth' to denote its ad hoc and not widely publicized nature. Despite the fact that these efforts were not in the form of a comprehensive package (as the one in 1991) to reverse the centralised controls and the protectionist bias in policies, they started bearing fruits in the form of higher growth rate during the 1980s as compared with the previous three decades. The average annual growth rate of GDP during the sixth plan period (1980–1985) and the seventh plan period (1985–1990) were 5.7 and 5.8 percent respectively.

The early reforms of 1980's broadly covered three areas, namely industry, trade and taxation. Simultaneously, the government also embarked on a policy of skilful exchange rate management. The prominent industrial policy initiatives during this period directed towards removing constraints on growth and creating a more dynamic industrial environment were:

• In 1985 delicensing of 25 broad categories of industries was done. This was later extended to many others

• The facility of 'broad-banding' was accorded for industry groups to allow

flexibility and rapid changes in their product mix without going in for fresh licensing. In other words, the firms in the engineering industry were allowed to change their product mix within their existing capacity. For example, firms may switch production between different production lines such as trucks and car without a new licence

- To relax the hold of the licensing and capacity constraints on larger MRTP firms, in 1985–86, the asset limit above which firms were subject to MRTP regulations was raised from 20 crore to 100 crore.

- The multipoint excise duties were converted into a modified value-added (MODVAT) tax which significantly reduced the taxation on inputs and the associated distortions.

- Establishment of the Securities and Exchange Board of India (SEBI) as a non-statutory body on April 12, 1988 through a resolution of the Government of India

- The open general licence (OGL) list was steadily expanded. The number of capital goods items included in the OGL list expanded steadily reaching1,329 in April 1990.

- Several export incentives were introduced and expanded

- The exchange rate was set at a realistic level which helped expand exports and in turn reduced pressure on foreign exchange needed for imports

- Price and distribution controls on cement and aluminum were entirely abolished.

- Based on the real effective exchange rate (REER), the rupee was depreciated by about 30.0 per cent from 1985–86 to 1989–90. This reflects a considerable change in the official attitude towards exchange rate depreciation

- The budget for 1986 introduced policies of cutting taxes further, liberalising imports and reducing tariffs.

However, the growth performance of the economy was thwarted due to structural inadequacies and distortions. The private sector investments were inhibited due to reasons such as convoluted licensing policies, public sector reservations and excessive government controls. Due to reservation of goods to small scale sector as well as excessive price and distribution controls, the private sector was virtually discouraged from making investments.

The public sector which led the manufacturing and service sectors was plagued by inefficiency, government controls and bureaucratic procedures. Despite the fact that they were of massive in size and enjoyed monopoly in their respective areas, their performance was far from satisfactory and yielded very low returns on investment.

The MRTP act had many restrictive conditions creating barriers for entry, diversification and expansion for large industrial houses. Import controls in the form of tariffs, quotas and quantitative restrictions ensured that foreign manufactures and components did not cross the borders and compete with the domestic industries. Foreign investments and foreign competition were not allowed on grounds of affording protection to domestic industries. Briefly put, the rules and regulations which were aimed at promoting and regulating the economic activities became major hindrances to growth and development.

Though the reforms in 1980's were limited in scope and were without a clearly observable road map as compared to the New Economic Policy in 1990, they were instrumental in bringing confidence in the minds of politicians and policy makers regarding the efficacy of policy changes to produce sustained economic growth. The belief that well-regulated competitive markets can ensure economic growth and also increase total welfare got fostered in the minds of policy makers. In other words, the idea that government intervention in markets need not always be accepted as 'the standard' and that markets should be given priority over government in the conduct of a good number of economic activities gained a broad acceptance. Thus, the liberalization in the 1980s served as the necessary foundation for the more universal and organized reforms of the 1990s.

4. THE ECONOMIC REFORMS OF 1991

India embarked on a bold set of economic reforms in 1991 under the Narsimha Rao government.

The causes attributed to the immediate need for such a drastic change are:

1. The fiscal initiatives for enhanced economic growth in 1980s saw the government revenue expenditure consistently exceeding revenue receipts. The fiscal deficit was financed by huge amounts of domestic as well as external debt. The high level current expenditure proved clearly unsustainable and got manifested on extremely large fiscal deficits and adverse balance of payments.

2. Persistent huge deficits led to swelling public debt and a large proportion of government revenues had to be earmarked for interest payments.

3. The surge in oil prices triggered by the gulf war in 1990 and the consequent severe strain on a balance of payments.

4. The foreign exchange reserves touched the lowest point with a reserve of only $1.2 billion which was barely sufficient for two weeks of imports. This was the

major context that triggered economic reforms.

5. Tightening of import restrictions to muster forex for essential imports resulted in reduction in industrial output.

6. India had to depend on external borrowing from the International Monetary Fund which in turn put forth stringent conditions in terms of corrective policy measures before additional drawings could be made.

7. The fragile political situation along with the crises in the economic front ballooned into what may be called a 'crisis of confidence'.

The year 1991 marked a paradigm shift in the Indian policy reforms. The nation which had embraced the 'socialist model', with the state playing an overriding role in the economy had the history of the government persistently intervening in the markets. Collapse of the Soviet Union and the spectacular success of China, based on outward oriented policies were lessons for the Indian policy makers. The reforms instituted in 1991 aimed to move the economy toward greater market orientation and external openness.

The reforms, popularly known as liberalization, privatization and globalisation, spelt a major shift in economic philosophy and fundamental change in approach and had two major objectives:

1. reorientation of the economy from a centrally directed and highly controlled one to a 'market friendly' or market oriented economy.

2. macroeconomic stabilization by substantial reduction in fiscal deficit.

A detailed description of reform measures is beyond the scope of this unit. We shall now have a brief account of the major measures taken in 1991.

As we know, the momentum for reforms originated in the critical economic, fiscal and balance of payments crises. Therefore, the reform package was structured as a core package of mutually supportive reforms to address the balance of payment crisis and the structural rigidities. The policy paradigm focused on shifting from central direction to market orientation.

The policies can be broadly classified as :

1. stabilisation measures which were short term measures to address the problems of inflation and adverse balance of payment and

2. the structural reform measures which are long term and of continuing nature aimed at bringing in productivity and competitiveness by removing the structural

rigidities in different sectors of the economy.

➢ **The Fiscal Reforms**

The escalating deficit levels rendered the stabilisation efforts rather complicated. Bringing in fiscal discipline by reducing the fiscal deficit was vital because the crisis was caused by excess domestic demand, surge in imports and the widening of the current account deficit (CAD) which was to be financed by drawing down on reserves. This was attempted by radical measures to augment revenues and to curtail government expenditure. Measures to this effect included:

1. Introduction of a stable and transparent tax structure,
2. Ensuring better tax compliance,
3. Thrust on curbing government expenditure
4. Reduction in subsidies and abolition of unnecessary subsidies
5. Disinvestment of part of government's equity holdings in select public sector undertakings and
6. Encouraging private sector participation.

    In order to bring in fiscal discipline, it was essential to do away with the temptation to finance deficit thorough the easy path of money creation. Therefore, the government entered into a historic agreement with the Reserve Bank in September 1994 to bring down the fiscal deficit in a phased manner to nil by 1997–98.

➢ **Monetary and Financial Sector Reforms**

Drastic monetary and financial sector reforms were introduced with the objective of making the financial system more efficient and transparent. The focus was mostly on reducing the burden of nonperforming assets on government banks, introducing and sustaining competition, and deregulating interest rates. These included many measures, important among them are:

1. Interest rate liberalization and reduction in controls on banks by the Reserve Bank of India in respect of interest rates chargeable on loans and payable on deposits.
2. Opening of new private sector banks and facilitating greater competition among public sector, private sector and foreign banks and simultaneously removal of administrative constraints that reduced efficiency
3. Reduction in reserve requirements namely, statutory liquidity ratio (SLR) and cash reserve ratio (CRR) in line with the recommendations of the Narasimham Committee Report, 1991.

4. Liberalisation of bank branch licensing policy and granting of freedom to banks in respect of opening, relocating or closure of branches

5. Prudential norms of accounting in respect of classification of assets, disclosure of income and provisions for bad debt were introduced in tune with the Narasimham Committee recommendations to ensure that the books of commercial banks reflect the accurate and truthful picture of their financial position.

➢ **Reforms in Capital Markets**

The Securities and Exchange Board of India (SEBI) which was set up in 1988 was given statutory recognition in 1992. SEBI has been mandated as an independent regulator of the capital market so as to create a transparent environment which would facilitate mobilization of adequate resources and their efficient allocation.

➢ **The 'New Industrial Policy'**

The 'New Industrial Policy' announced by the government on 24 July 1991 sought to substantially deregulate industry so as to promote growth of a more efficient and competitive industrial economy. In order to provide greater competitive stimulus to the domestic industry, a series of reforms were introduced

1. The New Economic Policy put an end to the 'License Raj' by removing licensing restrictions for all industries except for 18 that 'related to security and strategic concerns, social reasons, problems related to safety and overriding environmental issues'. Consequently, 80 percent of the industry was taken out of the licensing framework. This is subsequently reduced to 5,namely, arms and ammunition, atomic substances, narcotic drugs and hazardous chemicals, distillation and brewing of alcoholic drinks and cigarettes and cigars as these have severe implications on health, safety, and environment.

2. Public sector was limited to eight sectors based on security and strategic grounds. Subsequently only two items remained – railway transport and atomic energy

3. The Monopolies and Restrictive Trade Practices (MRTP) Act was restructured and the provisions relating to merger, amalgamation, and takeover were repealed. This has eliminated the need for pre-entry scrutiny of investment decisions and prior approval for large companies for capacity expansion or diversification.

4. Many goods produced by small-scale industries have been de reserved enabling entry of large scale industries.

5. The policy ended the public sector monopoly in many sectors The number of areas reserved for public sector was narrowed down to ensure liberal participation by the private sector. Only eight industries which are of importance due to strategic and security concerns were reserved for the public sector. The changes continued and we find that now the industries reserved for the public sector are only a part of atomic energy generation and some core activities in railway transport.

6. Foreign investment was also liberalised. The concept of automatic approval was introduced for foreign direct investments up to 51 percent which was later extended to nearly all industries except the reserved ones. FDI is prohibited only in four sectors viz. retail trade, atomic energy, lottery business and betting and gambling.

7. External trade was further liberalised by substituting 'the positive list approach' of listing license-free items on the OGL list with the negative list approach. The policy did away with import licensing on all but a handful of intermediate and capital goods. The consumer goods which remained under licensing was made free 10 years later. Today, except for a handful of goods disallowed on health, environmental and safety grounds, and few others such as edible oil, fertilizer and petroleum products all goods can be imported

8. In 1990-91, the highest tariff rate was 355%, The top tariff rate was brought down to 85% in 1993-94 and to 50% in 1995-96 and by 2007-08, it has come down to 10% with some exceptions such as automobile at 100%

9. Rupee was devalued by 18% against the dollar. From 1994 onwards, all current account transactions including business, education, medical and foreign travel were permitted at market exchange rate and rupee became officially convertible on current account

10. The disinvestment of government holdings of equity share capital of public sector enterprises was a very bold step. The hitherto constrained public sector units were provided with greater autonomy in decision making and opportunity for professional management for ensuring reasonable returns. The budgetary support to public sector was progressively reduced.

> **Trade Policy Reforms**

The trade policy reforms aimed at:

- dismantling of quantitative restrictions on imports and exports
- focusing on a more outward oriented regime with phased reduction and simplification of tariffs, and
- removal of licensing procedures for imports.

A number of export incentives were continued and new ones were initiated for boosting exports. Export duties were removed to increase the competitive position of Indian goods in the international markets. In 1991, India still had a fixed exchange rate system, under which the rupee was pegged to the value of a basket of currencies of major trading partners. In July 1991 the Indian government devalued the rupee by between 18 and 19 percent. In March 1992 the government decided to establish a dual exchange rate regime. The government allowed importers to pay for some imports with foreign exchange valued at free-market rates and other imports could be purchased with foreign exchange purchased at a government- mandated rate In March 1993 the government unified the exchange rate and allowed, for the first time, the rupee to float. From 1993 onwards, India has followed a managed floating exchange rate system.

India has witnessed vast changes over the last 31 years of economic reforms. Changes enumerated below are only broad observations and are in no way comprehensive.

- India has increasingly integrated its economy with the global economy.
- India has progressively moved towards a market oriented economy, with a sizeable reduction in government's market intervention and controls
- There is an unprecedented growth of private sector investment and initiatives
- A number of sectors such as auto components, telecommunications, software, pharmaceuticals, biotechnology, and professional services have achieved vey high levels of international competitiveness
- Easing of trade controls has enabled easier access to foreign technology, inputs, knowhow and finance
- Stable foreign direct investment inflows and substantial foreign portfolio investments
- India enjoys a solid cushion of foreign exchange reserves close to

eight months of import cover. India has one of the largest holdings of international reserves in the world.

- Robust demand for information technology and financial services has kept the services trade surplus high at around 3.7 percent of GDP
- Pressure on the Indian rupee is lower compared to other emerging market economies (EMEs)
- Increased incomes, large domestic market and high levels of aggregate demand sustains the economy.
- India is better placed than most of the emerging market economies to deal with global headwinds
- Poverty has reduced substantially
- Reforms led to increased competition in sectors like banking, insurance and other financial services leading to greater customer choice and increased efficiency. It has also led to increased investment and growth of private players in these sectors.
- Infrastructure sectors have achieved phenomenal growth
- Value-added share of agriculture and allied activities has declined steadily over the past four decades.
- India's financial sector has also deepened considerably due to increased financial sector liberalisation.

However, the country is constrained by high levels of fiscal deficit, inflation and a high level of debt as a share of GDP at 86 percent of GDP in FY21/22. Among the emerging market and developing economies (EMDEs), India's debt is higher than their average of 64.5% for 2022(IMF).

5. GDP GROWTH RATES POST 1991 REFORMS

As we are aware, GDP growth rate is regarded as the most reliable indicator of economic growth. The following table and graphical presentation present data on GDP growth rate post 1991 reforms.

Table 10.1

GDP Growth (Annual %) – India from 1991 to 2021

Year	GDP Growth (Annual %)	Year	GDP Growth (Annual %)
1991	1.056831	2006	8.060733
1992	5.482396	2007	7.660815
1993	4.750776	2008	3.086698
1994	6.658924	2009	7.861889
1995	7.574492	2010	8.497585

1996	7.549522	2011	5.241315
1997	4.049821	2012	5.456389
1998	6.184416	2013	6.386106
1999	8.845756	2014	7.410228
2000	3.840991	2015	7.996254
2001	4.823966	2016	8.256306
2002	3.803975	2017	6.795383
2003	7.860381	2018	6.453851
2004	7.922937	2019	3.737919
2005	7.923431	2020	-6.59608
		2021	8.681229

6. NITI AAYOG: A BOLD STEP FOR TRANSFORMING INDIA

For nearly sixty four years, the Planning Commission of India – a powerful advocate of public investment-led development – was one of the most important institutions within India's central government. The new ideologies of the neoliberal era with their centre of attention on market orientation and shrinking roles of the government and the collapse of the planning system called for a change in the nature, composition and scope of institutions of governance.

On 1st January 2015, the apex policy-making body namely Planning Commission, was replaced by the National Institution for Transforming India (NITI) Aayog. The major objective of such a move was to 'spur innovative thinking by objective 'experts' and promote 'co-operative federalism' by enhancing the voice and influence of the states'. NITI Aayog is expected to serve as a 'Think Tank' of the government. [and] a 'directional and policy dynamo'.

NITI Ayog will work towards the following objectives*:

1. To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of states.

2. To foster cooperative federalism through structured support initiatives and mechanisms with the states on a continuous basis, recognizing that strong states make a strong nation.

3. To develop mechanisms to formulate credible plans at the village level and aggregate these progressively at higher levels of government.

4. To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.

5. To pay special attention to the sections of our society that may be at risk of not benefiting adequately from economic progress.

6. To design strategic and long-term policy and programme frameworks and initiatives, and monitor their progress and their efficacy

7. To provide advice and encourage partnerships between key stakeholders and national and international like-minded think tanks, as well as educational and policy research institutions.

8. To create a knowledge, innovation and entrepreneurial support system through a collaborative community of national and international experts, practitioners and other partners.

9. To offer a platform for the resolution of inter-sectoral and inter departmental issues in order to accelerate the implementation of the development agenda.

10. To maintain a state-of-the-art resource centre, be a repository of research on good governance and best practices in sustainable and equitable development as well as help their dissemination to stake-holders.

11. To actively monitor and evaluate the implementation of programmes and initiatives, including the identification of the needed resources so as to strengthen the probability of success and scope of delivery.

12. To focus on technology up gradation and capacity building for implementation of programmes and initiatives.

13. To undertake other activities as may be necessary in order to further the execution of the national development agenda, and the objectives mentioned above. *NITI Aaayog https://niti.gov.in/objectives-and-features

The key initiatives of NITI Aayog are:

1. 'Life' which envisions replacing the prevalent 'use-and-dispose' economy

2. The National Data and Analytics Platform (NDAP) facilitates and improves access to Indian government data

3. Shoonya campaign aims to improve air quality in India by accelerating the deployment of electric vehicles

4. E-Amrit is a one-stop destination for all information on electric vehicles

5. India Policy Insights (IPI)

6. 'Methanol Economy' programme is aimed at reducing India's oil import bill, greenhouse gas (GHG) emissions, and converting coal reserves and municipal solid waste into methanol, and

7. 'Transforming India's Gold Market' constituted by NITI Aayog to recommend measures for tapping into the potential of the sector and provide a stimulus to exports and economic growth

There are arguments put forth by experts about the weaknesses of the system. They argue that NITI has a limited role; it does not produce national plans, control expenditures, or review state plans. The major shortcoming of NITI is its exclusion from the budgeting process. It also lacks autonomy and balance of power within the policy making apparatus of the central government. The termination of the Planning Commission has strengthened the hand of the Ministry of Finance, with its 'fixation on near-term macroeconomic stability and the natural instinct to limit expenditure'. But NITI lacks the independence and power to perform as a 'counterweight' to act as a "voice of development" concerned with inequities.

7. THE CURRENT STATE OF THE INDIAN ECONOMY: A BRIEF OVERVIEW

On account of the enormity of the economic phenomena and the dynamic nature of economic variables, it is not possible to have an up-to-date and comprehensive documentation on the current state of the economy. Given the constraints of the unit, an attempt is made in the following sections to present the broad nature of the present day Indian economy based on the three sectors namely, primary, secondary and tertiary.

➤ **The Primary Sector**

Agriculture, with its allied sectors, is indisputably the largest source of livelihood in India. Till the end of 1960's, India was a food deficient nation and depended

on imports. India has emerged as the world's largest producer of milk, pulses, jute and spices. India has the largest area planted under wheat, rice and cotton. It is the second-largest producer of fruits, vegetables, tea, farmed fish, cotton, sugarcane, wheat, rice, cotton, and sugar. Indian food and grocery market is the world's sixth largest, with retail contributing 70% of the sales. India has the world's largest cattle herd (buffaloes).The Indian livestock sector attained a record growth of 6.6 per cent during the last decade (2010-19) emerging as a major producer of milk, egg and meat in the world. India grows large varieties of cash crops of which cotton, jute and sugarcane are prominent. Although the share of agriculture has been declining in overall gross value added (GVA) of India, it continues to grow in absolute terms.

According to the latest estimates, 47 per cent of India's population is directly dependent on agriculture for living. It also contributes a significant figure to the Gross Domestic Product (GDP). Gross Value Added by the agriculture and allied sector was 18.8% in 2021-22 (until 31 January, 2022).

The index numbers of agricultural production in 2021-22 (base: triennium ending 2007- 08=100) for categories namely, all crops, food-grains, cereals, wheat and coarse cereals was above 140; and that of rice and pulses was 138.7 and 196.2 respectively. For non- food grains, it was 142.9. These figures show sustained increase in agricultural output. Food grains production has reached 315.7 million tonnes in 2021-22. Private investment in agriculture has increased to 9.3% in 2020-21. (Source: Handbook of Statistics on the Indian Economy, 2021-22)

As per the economic survey, 2022-23, agriculture remained robust, recording a growth of 3.5 per cent in 2022-23, driven by buoyant rabi sowing and allied activities. The performance of the agriculture and allied sectors has been buoyant over the past several years, much of which is on account of the measures taken by the government to:

- augment crop and livestock productivity,
- ensure certainty of returns to the farmers through price support (The Minimum Support Price (MSP) of all 23 mandated crops is fixed at 1.5 times of all India weighted average cost of production)
- promote crop diversification,
- improve market infrastructure through the impetus provided for the setting up of farmer-producer organisations and
- promotion of investment in infrastructure facilities through the Agriculture Infrastructure Fund.

India has achieved a remarkable shift from a food deficient and import dependent nation during the early nineteen sixties to a food exporting nation. India is among the top ten exporters of agricultural products in the world. Export of agricultural and allied products has witnessed significant increase during the last few years and touched an all-time peak of Rs 374611 crore during the last one year. Exports of agricultural and processed food products rose by 25 percent within six months of the current financial year 2022-23 (April-September) in comparison to the corresponding period in 2021-22. Agricultural and Processed Food Export Development Authority (APEDA) is entrusted with the responsibility of exportpromotion of agri-products.

A number of liberalization measures are adopted by the government. The Government of India has allowed 100% FDI in marketing of food products and in food product E-commerce under the automatic route. Considering the diverse needs of the agricultural sector and the larger farming community, a large number of interventions are undertaken by different governments. A few such recent measures are:

- Income support to farmers through PM KISAN
- Fixing of Minimum Support Price (MSP) at one-and-a half times the cost of production
- Institutional credit for agriculture sector at concessional rates
- Launch of the National Mission for Edible Oils
- Pradhan Mantri Fasal BimaYojana (PMFBY) – a novel insurance scheme for financial support to farmers suffering crop loss/damage
- Mission for Integrated Development of Horticulture (MIDH) for the holistic growth of the horticulture sector
- Provision of Soil Health Cards
- Paramparagat Krishi Vikas Yojana (PKVY) supporting and promoting organic farming, and improvement of soil health.
- Agri Infrastructure Fund, a medium / long term debt financing facility for investment in viable projects for post-harvest management Infrastructure and community farming assets
- Promotion of Farmer Producer Organisations (FPOs) to ensure better income for the producers through an organization of their own.
- Per Drop More Crop (PDMC) scheme to increase water use efficiency at the farm level

- Setting up of Micro Irrigation Fund
- Initiatives towards agricultural mechanization
- Setting up of E-NAM -a pan-India electronic trading portal which networks the existing APMC mandis to create a unified national market for agricultural commodities.
- Introduction of Kisan Rail for improvement in farm produce logistics, and
- Creation of a Start-up Eco system in agriculture and allied sectors

Despite phenomenal increase in output of both food crops and commercial crops, Indian agriculture faces many issues such as:

- Indian agriculture is dominated by small and medium farmers. Small and fragmented landholdings, low farm productivity and subsistence farming result in very little marketable surplus and the consequent lower income levels of the agriculturists. These also reduce their ability to participate in the domestic as well as export market.
- Indian agriculture is resource intensive, cereal centric and regionally biased. There is Increasing stress on water resources and soil fertility. Unscientific and wasteful agricultural practices lead to desertification and land degradation in many parts of the country.
- Inadequate agro-processing infrastructure and failure to build competitive value chains from producers to urban centers and export markets
- Sluggish agricultural diversification to higher-value commodities
- Inadequate adoption of environmentally sustainable and climate resistant new farm technology
- Poor adoption of new agricultural technologies
- Lopsided marketing practices and ineffective credit delivery
- Complexities associated with adaptation to climate change disturbances
- High food price volatility
- Heavy dependence on monsoons and loss of crops and livelihood due to vagaries of nature
- Issues related to marketing and warehousing of agricultural products
- Inability to tap the full export potential of primary as well as value added products
- Inability to effectively channelize huge surpluses in some commodities to alternative profitable destinations
- Inadequate post-harvest infrastructure and management practices
- Incidence of poverty and malnutrition

> ### The Secondary Sector

The Indian industry holds a significant position in the Indian economy contributing about 30 percent of total gross value added in the country and employing over 12.1 crores of people. The industrial sector in India broadly comprises of manufacturing, heavy industries, fertilizers, pharmaceuticals, chemicals and petrochemicals, oil and natural gas, food processing, mining, defence products, textiles, retail, micro, small & medium enterprises, cottage industries and tourism. The share of informal sector in the economy is more than 50% of GVA. Rapid industrial growth of domestic industries and diversification of industrial structure are essential elements for sustainable economic growth. The development of a robust manufacturing sector is a key priority of the Indian Government.

A detailed discussion on industrial development is beyond the scope of this unit. Starting with the industrial growth figures, we shall briefly touch upon the general aspects related to industries. In India, industrial production measures the output of businesses integrated in industrial sector of the economy. Manufacturing is the most important sector and accounts for 78 percent of total production. The manufacturing GVA at current prices was estimated at US$ 77.47 billion in the third quarter of financial year 2021–22 and has contributed around 16.3% to the nominal GVA during the past ten years. In 2022– 23 (until September 2022), the combined index of eight core industries* stood at 142.8 driven by the production of coal, refinery products, fertilizers, steel, electricity and cement industries. In Jan 31, 2023 the Manufacturing Purchasing Managers' Index (PMI) in India stood at 55.4 . India's rank in the Global Innovation Index (GII) improved to 40th in 2022 from 81st in 2015.

[*ICI measures combined and individual performance of production of eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity. The Eight Core Industries comprise 40.27 percent of the weight of items included in the Index of Industrial Production (IIP)].

The Department for Promotion of Industry and Internal Trade (DPIIT) has a role in the formulation and implementation of industrial policy and strategies for industrial development in conformity with the development needs and national objectives. Ever since independence, many innovative schemes are undertaken by different governments from time to time to boost industrial performance. Some of the policies are presented below:

- Introduction of goods and services tax (GST) on 1 July 2017 as a single domestic indirect tax law for the entire country replacing many indirect

taxes in India such as the excise duty, VAT, services tax, etc.

- Reduction of corporate tax to domestic companies giving an option to pay income-tax at the rate of 22% subject to condition that they will not avail any exemption/incentive.

- 'Make in India' is a 'Vocal for Local' initiative launched in 2014 to facilitate investment, foster innovation, build excellent infrastructure and make India a hub for manufacturing, design and innovation. Make in India 2.0' is now focusing on 27 sectors, which include 15 manufacturing sectors and 12 service sectors.

- 'Ease of Doing Business' with key focus areas as simplification of procedures, rationalization of legal provisions, digitization of government processes, and decriminalization of minor, technical or procedural defaults. India ranks 63rdin the World Bank's annual Doing Business Report (DBR), 2020 as against 77thrank in 2019 registering a jump of 14 ranks.

- The National Single Window System is a one-stop-shop for investor related approvals and services in the country and aims to provide continuous facilitation and support to investors.

- PM Gati Shakti National Master Plan to facilitate data-based decisions related to integrated planning of multimodal infrastructure, thereby reducing logistics cost.

- National Logistics Policy (NLP) launched in September 2022, aims to lower the cost of logistics and make it at par with other developed countries.

- Keeping in view India's vision of becoming 'Atmanirbhar', the Production Linked Incentive (PLI) Scheme was initiated in March 2020 for 14 key sectors to enhance India's manufacturing capabilities and export competitiveness. PLI Scheme is now extended for white goods (air conditioners and led lights).

- Industrial Corridor Development Programme: Greenfield Industrial regions/areas/nodes with sustainable infrastructure and to make available 'plug and play' infrastructure at the plot level.

- FAME-India Scheme (Faster Adoption and Manufacturing of Hybrid and Electric Vehicles) to promote manufacturing of electric and hybrid vehicle technology and to ensure sustainable growth of the same.

- 'Udyami Bharat' aims at the empowerment of Micro Small and Medium Enterprises (MSMEs).

- PM Mega Integrated Textile Region and Apparel (PM MITRA): to ensure

world-class industrial infrastructure which would attract cutting age technology and boost FDI and local investment in the textiles sector.

- Opening up for global investments: To make India a more attractive investment destination, the government has implemented several radical and transformative FDI reforms across sectors such as defence, pension, e-commerce activities etc.

- 100 per cent FDI under automatic route is permitted for the sale of coal, and coal mining activities, including associated processing infrastructure and for insurance intermediaries.

- Foreign Investment Promotion Board (FIPB) was abolished in May 2017, and a new regime namely Foreign Investment Facilitation Portal (FIF) has been put in place. Under the new regime, the process for granting FDI approvals has been simplified. 853 FDI proposals were disposed off in the last 5 years. FDI has increased jumped by 39% since FIF came into being.

- Remission of Duties and Taxes on Export Products (RoDTEP) 2021 formed to replace the existing MEIS (Merchandise Exports from India Scheme) to boost exports. It provides for rebate of all hidden central, state, and local duties/taxes/levies on the goods exported which have not been refunded under any other existing scheme.

- Initiatives towards fostering innovation include incubation, handholding, funding, industry-academia partnership and mentorship and strengthening of IPR regime.

- National Logistics Policy (NLP) is comprehensive policy framework for the Logistics Sector.

- Start-up India Programme acts as the facilitator for ideas and innovation in the country. India's rank in the Global Innovation Index (GII) has improved from 81st in 2015 to 40th in 2022.

- Public Procurement (Preference to Make in India) Order, 2017gives preference to locally manufactured goods, works and services in public procurement thereby giving boost to industrial growth.

- The Emergency Credit Line Guarantee Scheme (ECLGS)is a fully guaranteed emergency credit line to monitor lending institutions.

India is gearing up for the fourth industrial revolution or Industry 4.0 in which manufacturing transformation needs to integrate new technologies such as cloud computing, IoT, machine learning, and artificial intelligence

(AI). The National Manufacturing Policy which aims to increase the share of manufacturing in GDP to 25 percent by 2025 is a step in this direction. India is an attractive hub for foreign investments in the manufacturing sector. Over the last few years, FDI equity inflows in the manufacturing sector have been progressively rising. India continues to open up its sectors to global investors by raising FDI limits and removing regulatory barriers in addition to developing infrastructure and improving the business environment. According to the Department for Promotion of Industry and Internal Trade (DPIIT), India received a total foreign direct investment (FDI) inflow of US$ 58.77 billion in 2021-22.

There are many challenges to the industrial sector; a few of these are enumerated below:
- Shortage of efficient infrastructure and manpower and consequent reduced factor productivity.
- Reliance on imports, exchange rate volatility and associated time and cost overruns
- The MSME sector is relatively less favorably placed in terms of credit availability.
- Industrial locations established without reference to cost-effective points tend to experience unsustainable cost structure.
- Heavy losses, inefficiencies, lower productivity and unsustainable returns plaguing public sector industries.
- Strained labor-management relations and loss of man hours.
- Lower export competitiveness, slowing external demand and imposition of non tariff barriers by other countries.
- Global supply chain disruptions and uncertainties.
- Inflation and associated macro economic developments leading to input cost escalations and lower demand.
- Global slowdown and related negative sentiments affecting investment.
- Aggressive tightening of monetary policy and increases in cost of credit.
- High and increasing fuel prices, and
- Mounting presence of informal sector.

➢ **The Tertiary Sector**

A remarkable feature of the post reform Indian economy is the overarching role of the services sector in generating growth of income and employment.

Unlike the usual economic development process of nations where economic growth has led to a shift from agriculture to industries, or from the primary sector to the secondary sector, India has the unique experience of bypassing the secondary sector in the growth trajectory by a shift from agriculture to the services sector.

India's services sector covers a wide variety of activities. (Refer Box 2 Below)

	BOX 2. The broad classification of services as per the National Industrial Classification, 2008
1.	Wholesale and retail trade and repair of vehicles
2.	Transportation and storage
3.	Accommodation and food service activities
4.	Information and communication
5.	Financial and insurance activities
6.	Real estate activities
7.	Professional, scientific and technical activities
8.	Administrative and support services
9.	Public administration, defence and compulsory social security
10.	Education
11.	Human health and social work activities
12.	Arts, entertainments and recreation
13.	Other service activities
14.	Activities of households as employers, undifferentiated goods and services producing activities of households for own use
15.	Activities of extra territorial organizations and bodies

Source: The Service Sector in India Arpita Mukherjee ADB Economics Working Paper Series No. 352 / June 2013

The service sector refers to the industry producing intangible goods viz. services as output. The services sector is the largest sector of India and accounts for 53.89% of total India's GVA.

The Gross Value Added (GVA) at current prices for the services sector is estimated at ₹ 96.54 lakh crore in 2020-21.

The service sector is the fastest growing sector in India and has the highest labour productivity. Both domestic and global factors influence the growth of the services

sector. The exceptionally rapid expansion of knowledge-based services such as professional and technical services has been responsible for the faster growth of the services sector. The production and consumption of information-intensive service activities such as computing, accounting, inventory management, quality control, personnel administration, marketing, advertising and legal services has increased manifold due to application of state- of the- art information technology. Services sector growth can also complement growth in the manufacturing sector.

The start-ups which have grown remarkably over the last few years mostly belong to the services sector.

India is among the top 10 World Trade Organization (WTO) members in service exports and imports. India's services exports at US$ 27.0 billion recorded robust growth in November 2022 due to software, business, and travel services. While exports from all other sectors were adversely affected, India's services exports have remained resilient during the Covid-19 pandemic. The reasons are the higher demand for digital support and need for digital infrastructure modernization.

The Indian services sector is the largest recipient of FDI inflows. FDI equity inflows into the services sector accounted for more than 60 per cent of the total FDI equity inflows into India.

The World Investment Report 2022 of UNCTAD places India as the seventh largest recipient of FDI in the top 20 host countries in 2021. In 2021-22, India received the highest-ever FDI inflows of US$ 84.8 billion including US$ 7.1 billion FDI equity inflows in the services sector.

To ensure the liberalisation of investment in various industries, the government has permitted 100 per cent foreign participation in telecommunication services through the Automatic Route including all services and infrastructure providers. The FDI ceiling in insurance companies was also raised from 49 to 74 per cent. Measures undertaken by the Government, such as the launch of the National Single-Window system and enhancement in the FDI ceiling through the automatic route, have played a significant role in facilitating investment.

8. CONCLUSION

The India Development Update (IDU) of the World Bank published in November 2022, observes that India had to face an unusually challenging external environment following the Russia-Ukraine war, increased crude oil and commodity prices, persistent global supply disruptions, tighter financial conditions and high domestic inflationary pressures. Despite all these, the real GDP of India grew by 6.3 percent in

July-September of 2022-23 driven by strong private consumption and investment. The report observes that India's economy is relatively more insulated from global spillovers than other emerging markets and is less exposed to international trade flows on account of reliance on its large domestic market. As such, compared to other emerging economies, India is much more resilient to withstand adversities in the global arena.

MODULE MULTIPLE CHOICE QUESTIONS

1. The Indian industry stagnated under the colonial rule because
    (a) Indians were keen on building huge structures and monuments only
    (b) Deterioration was caused by high prices of inputs due to draught
    (c) The Indian manufactures could not compete with the imports of cheap machine made goods
    (d) None of the above

2. The first wave of liberalization starts in India
    (a) In 1951   (b) In 1980's
    (c) In 1990   (d) In 1966

3. The sequence of growth and structural change in Indian economy is characterized by
    (a) The historical pattern of prominence of sectors as agriculture, industry, services
    (b) The historical pattern of prominence of sectors as industry, services, agriculture
    (c) Unique experience of the sequence as agriculture, services, industry
    (d) All the above are correct

4. Merchandise Exports from India Scheme was replaced by –
    (a) Remission of Duties and Taxes on Export Products (RoDTEP) in 2021
    (b) National Logistics Policy (NLP) in 2020
    (c) Remission of Duties and Taxes on Export Products (RoDTEP) in 2019
    (d) None of the above

5. The Foreign Investment Promotion Board (FIPB)
    (a) a government entity through which inward investment proposals were routed to obtain required government approvals
    (b) no more exists as the same is replaced by a new regime namely Foreign Investment Facilitation Portal
    (c) no more exists as all inward investments are through automatic route and need no approval
    (d) is the body which connects different ministries in respect of foreign por tfolio investments

6.   FAME-India Scheme aims to

     (a)   Enhance faster industrialization through private participation

     (b)   to promote manufacturing of electric and hybrid vehicle technology

     (c)   to spread India's fame among its trading partners

     (d)   None of the above

7.   In terms of Ease of Doing Business in 2020 India ranks

     (a)   63   (b)   77

     (c)   45   (d)   None of the above

8.   E-NAM is –

     (a)   An electronic name card given to citizens of India

     (b)   National Agriculture Market with the objective of creating a unified national market for agricultural commodities.

     (c)   a pan-India electronic trading portal which networks the existing APMC mandis

     (d)   (b) and (c) above

9.   Which of the following is not a policy reform included in the new economic policy of 1991 –

     (a)   removing licensing requirements for all industries

     (b)   Foreign investment was liberalized

     (c)   Liberalisation of international trade

     (d)   The disinvestment of government holdings of equity share capital of public sector enterprises

10. Imports of foreign goods and entry of foreign investments were restricted in India because –

     (a)   The government wanted people to follow the policy of' Be Indian; Buy Indian'

     (b)   Because foreign goods were costly and meant loss of precious foreign exchange

     (c)   Government policy was directed towards protection of domestic industries from foreign competition

     (d)   Government wanted to preserve Indian culture and to avoid influence of foreign culture

11. The 'Hindu growth rate' is a term used to refer to –
    (a) the high rate of growth achieved after the new economic policy of 1991
    (b) the low rate of economic growth of India from the 1950s to the 1980s, which averaged around 3.5 per cent per year
    (c) the low growth of the economy during British period marked by an average of 3.5 percent
    (d) the growth rate of the country because India is referred to as 'Hindustan'

12. In the context of the new economic policy of 1991, the term 'disinvestment' stands for –
    (a) A policy whereby government investments are reduced to correct fiscal deficit
    (b) The policy of sale of portion of the government shareholding of a public sector enterprise
    (c) The policy of public partnership in private enterprise
    (d) A policy of opening up government monopoly to the privates sector

13. The objective of introducing Monopolies and Restrictive Trade Practices Act 1969 was –
    (a) to ensure that the operation of the economic system does not result in the concentration of economic power in hands of a few
    (b) to provide for the control of monopolies
    (c) to prohibit monopolistic and restrictive trade practice
    (d) all the above

14. Which one of the following is a feature of green revolution –
    (a) use of soil friendly green manure to preserve fertility of soil
    (b) grow more crops by redistributing land to landless people
    (c) High yielding varieties of seeds and scientific cultivation
    (d) Diversification to horticulture

15. The strategy of agricultural development in India before green revolution was –
    (a) High yielding varieties of seeds and chemical fertilizers to boost productivity
    (b) Institutional reforms such as land reforms
    (c) Technological up gradation of agriculture
    (d) All the above

16. The Industrial Policy Resolution (1948) aimed at –

    (a) Market oriented economic reforms and opening up of economy

    (b) A shift from state led industrialization to private sector led industrialisation

    (c) an expanded role for the public sector and licensing to the private sector

    (d) an expanded role of private sector a limited role of public sector

17. The new economic policy of 1991 manifest in –

    (a) State led industrialization and import substitution

    (b) Rethinking the role of markets versus the state

    (c) Emphasized the role of good governance

    (d) Bringing about reduction in poverty and redistributive justice

18. The post independence economic policy was rooted in –

    (a) A capitalist mode of production with heavy industrialization

    (b) social and economic redistribution and industrialization directed by the state

    (c) social and economic redistribution through private sector initiatives

    (d) Industrialization led by private entrepreneurs and redistribution by state

ANSWERS:

1	(c)	2	(b)	3	(c)	4	(a)	5	(b)
6	(b)	7	(a)	8	(d)	9	(a)	10	(c)
11	(b)	12	(b)	13	(d)	14	(d)	15	(b)
16	(c)	17	(b)	18	(b)				

SUMMARY

➢ India is believed to have had the largest economy of the ancient and the medieval world and controlled between one third and one fourth of the world's wealth. It was prosperous and self-reliant and had flourishing cities and self sufficient villages.

➢ The advent of the Europeans and the rule of British from 1757 to 1947 brought about a marked shift in the economic history of India.

➢ Higher production on account of industrial revolution in Britain necessitated raw materials and markets for finished goods for which India was made the target. This, along with adverse imperial policies towards Indian manufacturing and the ease of importing cheap machine made goods decreased the competitiveness of Indian manufactures and reduced their domestic demand leading to a virtual destruction of the Indian manufacturing sector.

➢ The consequence of collapse of manufacturing sector was felt heavily on agricultural sector in the form of overcrowding on farms, subdivision and fragmentation, subsistence farming, low productivity, lower incomes and aggravated poverty.

➢ Institutional inadequacies in land tenure and growth of a class of exploitative money lenders and zamindars resulted in vices such as absentee landlordism, high rents, high indebtedness, deterioration of fertility of land and low productivity.

➢ During the British period, modern industrial sector saw lopsided growth with preponderance of cotton and jute industry. Producer goods industries lagged behind due to the discriminatory attitudes of self interested British rulers. The share of manufacturing and of employment in this sector was pathetically low.

➢ At the time of independence, India was overwhelmingly rural, inhabited by mostly illiterate and poor people with low life expectancy. The social structure was deeply stratified and exceedingly heterogeneous on many counts. The country was deficient in physical, financial and human capital.

➢ The economic development strategy adopted was the Nehruvian model which supported social and economic redistribution and industrialization directed by the state. Accordingly the Planning Commission of India was established to meticulously lan for economic development on socialistic lines with equity and distributive justice. The five-year plans were developed, implemented, and monitored by the Planning Commission with this objective.

- Rapid industrialization of the economy was the cornerstone of Nehru's development strategy. The concept of 'planned modernization' meant a systematic planning to support industrialization.

- The Industrial Policy Resolution (1948) envisaged an expanded role for the public sector and licensing to the private sector.

- The policies in 1950's were guided by both Nehruvian and Gandhian philosophies with the former visualizing a socialistic society with emphasis on heavy industries and the latter stressing on small scale and cottage industry and village republics.

- The Industrial Policy Resolution of 1956 supported undue priority and enormous expansion of the scope of the public sector which resulted in dampening of private initiative and enterprise.

- In the first three decades after independence (1950–80), India's average annual rate of growth of GDP, often referred to as the 'Hindu growth rate', was a modest 3.5 percent.

- The first major shift in Indian economic strategy was in the mid-1960s. Due to continuous failures of monsoon, droughts struck India in 1966 and 1967 and food crisis set in. The need for increased productivity in agriculture kick-started a strategic change in agriculture policies.

- The strategy for agricultural development which had so far relied on institutional model such as land reforms gave way to technological and farm management reforms giving rise to a revolutionary transformation in agricultural production and productivity.

- This radical change materialised by innovative farm technologies, including high yielding seed varieties and intensive use of water, fertilizer and pesticides is referred to as 'Green Revolution'.

- Many government policies aimed at prevention of growth of monopolies and equitable distribution of income and wealth such as reservation of many products for exclusive manufacture by the small scale sector and the Monopolies and Restrictive Trade Practices Act, 1969 (MRTP) (which placed several restrictions on large enterprises in terms of licensing, capacity addition, mergers and acquisitions) effectively killed the incentive for creating wealth.

- The economic performance during the period of 1965-81 is the worst in independent India's history. The license-raj, the autarchic policies that dominated the 1960s and 1970s, and the external shocks such as three wars, major droughts, and the oil shocks of 1973 and 1979 contributed to the decelerated growth lasting two decades.

- The seeds of early liberalisation and reforms were sown during the 1980s, especiall after 1985. In early 1980s considerable efforts were made to restore reasonable price stability through a combination of tight monetary policy, fiscal moderation and a few structural reforms.

- The reform initiatives- covering three areas, namely industry, trade and taxationspanning 1981 to 1989, is referred to as 'early liberalization' or 'r eforms by stealth' to denote its ad hoc and not widely publicized nature. They were aimed at changing the prevailing thrust on 'inward-oriented' trade and investment practices.

- The major reforms in 1980's included de licensing of 25 broad categories of industries, granting of the facility of 'broad-banding' to allow flexibility and rapid changes in the product mix of industries without going in for fresh licensing, increase in the asset limit of MRTP firms from 20 crore to 100 crore, introduction of modified value-added (MODVAT), establishment of the Securities and Exchange Board of India (SEBI) as a non-statutory body ,extension of the Open General Licence (OGL), export incentives, liberalisation of imports , reduction in tariffs and removal of price and distribution controls on cement and aluminium.

- The private sector investments were inhibited due to reasons such as convoluted licensing policies, public sector reservations and excessive government controls, reservation of goods to small scale sector as well as excessive price and distribution controls.

- The public sector which led the manufacturing and service sectors was plagued by inefficiency, government controls and bureaucratic procedures and yielded very low returns on investment.

- Import controls in the form of tariffs, quotas and quantitative restrictions, and restrictions on foreign trade and investments virtually insulated the economy from foreign competition.

- The reforms in 1980'swere instrumental in bringing confidence in the minds of politicians and policy makers that a well-regulated competitive market can ensure economic growth and increase in overall welfare.

- Extremely large fiscal deficits, severe strain on balance of payments, heavy internal as well as external debt, unprecedented levels of interest payments, all-time low foreign exchange reserves, lessons from collapse of Soviet Union, spectacular success of China through adoption of outward oriented policies and above all, the stringent conditions put forth by the International Monetary Fund for availing further loans were the reasons for launching the drastic economic reforms of 1991.

- The twin objectives of reforms were reorientation of the economy from a centrally directed and highly controlled one to a 'market friendly' or 'market oriented' economy and macroeconomic stabilization by substantial reduction in fiscal deficit.

- The reform policies can be broadly classified as a) stabilisation measures which were short term measures to address the problems of inflation and adverse balance of payment and b) structural reform measures which are long term and of continuing nature aimed at bringing in productivity and competitiveness by removing the structural rigidities in different sectors of the economy.

- The fiscal reforms included introduction of a stable and transparent tax structure, better tax compliance, control of government expenditure, reduction /abolition of subsidies, disinvestment of part of government's equity holdings and encouraging private sector participation.

- The monetary and financial sector reforms were in the form of interest rate liberalization, reduction in controls on banks by the Reserve Bank of India in respect of interest rates and facilitating greater competition in the banking sector by privateparticipation and foreign competition, reduction in reserve requirements, liberalisation of bank branch licensing policy and establishing prudential norms of accounting in respect of classification of assets, disclosure of income and provisions for bad debt.

- Reforms in Capital Markets included granting of statutory recognition to the Securities and Exchange Board of India (SEBI) to facilitate mobilization of adequate resources and their efficient allocation.

- The 'New Industrial Policy' announced by the government on 24 July 1991 sought to substantially deregulate industry so as to promote growth of a more efficient and competitive industrial economy.

- The policy put an end to the 'License Raj' by removing licensing restrictions for all industries except for 18 on strategic considerations.

- Other initiatives included reduction in the number of industries reserved for the public sector and the small scale sector, restructuring of the polices related to merger, amalgamation, and takeover under the MRTP act, devaluation of rupee, liberalization of foreign investments and disinvestment of government holdings of equity share capital of public sector enterprises.

- The trade policy reforms included liberalisation of external trade, removal of licensing for imports, dismantling of quantitative restrictions on imports and exports and phased reduction and simplification of tariffs.

- Reforms resulted in major changes such as increasing integration with the global

economy, progressive shift towards a market oriented economy, sizeable reduction in government's market intervention and controls, unprecedented growth of private sector investments and initiatives, increased levels of international competitiveness, easier access to foreign technology, inputs ,know-how and finance, steady inflow of foreign direct and portfolio investments , solid cushion of foreign exchange reserves, increased incomes, large domestic market, sustainable levels of aggregate demand, substantial reduction in poverty, greater customer choice, increased efficiency, phenomenal growth of infrastructure sector and the deepening of the financial sector.

➢ The GDP growth rate, on an average, has been commendable throughout the post reform period except for the pandemic ridden year 2020 when the economy registered a negative growth rate.

➢ Despite the above achievements, the country is constrained by high levels of fiscal deficit, growing inequalities, inflation and high levels of debt as a share of GDP.

➢ The Planning Commission of India was one of the most important institutions within India's central government for nearly sixty four years. The new ideologies of the neoliberal era called for a change in the nature, composition and scope of institutions of governance.

➢ On 1st January 2015, the apex policy-making body namely Planning Commission, was replaced by the National Institution for Transforming India (NITI) Aayog with the objective to 'spur innovative thinking by objective 'experts' and promote 'co-operative federalism' by enhancing the voice and influence of the states' .

➢ NITI Aayog is expected to serve as a 'Think Tank' of the government. [and] as 'directional and policy dynamo'. The key initiatives of NITI Aayog are: 'Life', The National Data and Analytics Platform (NDAP), Shoonya, E-Amrit, India Policy Insights (IPI), and 'Transforming India's Gold Market'.

➢ The weaknesses of the system are that NITI has a limited role; it is excluded from the budgeting process, lacks autonomy and balance of power within the policy making apparatus of the central government and that it lacks the independence and power to perform as a 'counterweight' to act as a "voice of development" concerned with inequities.

➢ The Primary sector i.e agriculture with its allied sectors is the largest source of livelihood for people. India has emerged as the world's largest producer of milk, pulses, jute and spices and has the largest area planted under wheat, rice and cotton. It is the second largest producer of fruits, vegetables tea, farmed fish, cotton, sugarcane, wheat, rice, cotton, and sugar. Forty seven per cent of India's population
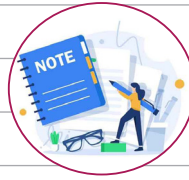
is d irectly dependent on agriculture for living which contributes a significant figure to the Gross Domestic Product18.8% in 2021-22 (until 31 January, 2022). Food grains production has reached 315.7 million tonnes in 2021-22.

➢ India is among the top ten exporters of agricultural products in the world. Agricultural and Processed Food Export Development Authority (APEDA) is entrusted with the responsibility of export promotion of agri-products.

➢ Various measures are adopted by the government such as 100% FDI in marketing of food products and in food product E-commerce, income support to farmers through PM KISAN, fixing of Minimum Support Price (MSP) at one-and-a half times the cost of production, institutional credit for agriculture sector at concessional rates , National Mission for Edible Oils, Pradhan Mantri Fasal BimaYojana (PMFBY) a novel insurance scheme, Mission for Integrated Development of Horticulture (MIDH, Soil Health Cards, Paramparagat Krishi Vikas Yojana (PKVY), Agri Infrastructure Fund, Promotion of Farmer Producer Organisations (FPOs), Per Drop More Crop (PDMC), setting up of Micro Irrigation Fund, creation of E-NAM -a pan-India electronic trading portal, introduction of Kisan Rail and creation of a Start-up Eco system in agriculture and allied sectors.

➢ Indian agriculture faces many issues, such as small and fragmented landholdings, low farm productivity and subsistence farming, low marketable surplus and the consequent lower income levels, inability to participate in the domestic as well as export market, inadequate agro-processing infrastructure, failure to build competitive value chains, sluggish agricultural diversification to higher-value commodities, inadequate adoption of environmentally sustainable and climate resistant new farm technology, lopsided marketing practices, ineffective credit delivery, high food price volatility, heavy dependence on monsoons, poor warehousing, inadequate post-harvest infrastructure management practices and incidence of poverty and malnutrition.

➢ The industrial sector contributes about 30 percent of total gross value added and employs over 12.1 crores of people. Manufacturing is the most important sector and accounts for 78 percent of total production.

➢ In 2022- 23 (until September 2022), the combined index of eight core industries stood at 142.8 In Jan 31, 2023 the Manufacturing Purchasing Managers' Index (PMI) in India stood at 55.4. India's rank in the Global Innovation Index (GII) improved to 40th in 2022 from 81st in 2015.

➢ The Department for Promotion of Industry and Internal Trade (DPIIT) has a role in the formulation and implementation of industrial policy and strategies for industrial development.

- Some of the policies for industrial development include introduction of goods and services tax (GST) 2017 as a single domestic indirect tax law for the entire country, reduction in corporate tax of domestic companies, 'Make In India' a 'Vocal for Local' initiative, Ease of Doing Business , the National Single Window System, PM Gati Shakti National Master Plan, National Logistics Policy (NLP), Production Linked Incentive (PLI) Scheme, Industrial Corridor Development Programme, FAME-India Scheme, Udyami Bharat', PM Mega Integrated Textile Region and Apparel, Remission of Duties and Taxes on Export Products (RoDTEP) ,National Logistics Policy (NLP), Start-up India, Programme of Public Procurement (Preference to Make in India) and the Emergency Credit Line Guarantee Scheme.

- The major challenges to the industrial sector are shortage of efficient infrastructure and manpower, reduced factor productivity, heavy reliance on imports, exchange rate volatility, industrial locations established without reference to cost-effective points, heavy losses, inefficiencies, lower productivity and unsustainable returns plaguing the public sector industries, strained labour-management relations, lower export competitiveness, slowing external demand, imposition of non tariff barriers by other countries, global supply chain disruptions and uncertainties, inflation, leading to input cost escalations and lower demand, global slowdown and related negative sentiments affecting investments, aggressive tightening of monetary policy and increases in cost of credit ,high and increasing fuel prices and the mounting presence of informal sector.

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